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The Civic Role of OSPs in Mature Information Societies

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1. Introduction

Online service providers (OSPs) have gone from offering connecting and information-sharing services to their paying members to providing open infrastructure and applications that facilitate digital expression, interaction, and the communication of information. This evolution put OSPs in a peculiar position. For they design and provide key services on which information societies depend. This raises the questions as to what role they have in our societies, what moral responsibilities this role entail, and how OSPs should discharge these responsibilities.

Over the years the discussion concerning the responsibilities of OSPs went from defining measures that OSPs should deploy to correct their market bias and ensure a pluralistic web, to the impact that OSPs have on the Internet, on the flourishing of democratic values, and on societies at large.(Mariarosaria Taddeo and Floridi 2015) The debate spans over different fields, from information and computer ethics, corporate social responsibilities and business ethics, to computer mediated communication, law,(Frosio 2018) and public policy. Topics of analyses range from biases and skewing of information indexed by search engines, (Introna and Nissenbaum 2006; Granka 2010) the protection of users privacy(Zhang et al. 2010) and security,(Cerf 2011; Mariarosaria Taddeo 2013a; 2014) to the impact of OSPs on democratic processes,(Pariser 2012; Sunstein 2001; Luciano Floridi 2016) and their duties with respect to human rights.(Broeders and Taylor Forthcoming)

Elsewhere,¹ I analysed the relevant literature on the moral responsibilities of OSPs and identified three important aspects of the debate concerning (i) expectations about the conduct of OSPs; (ii) an increasing consensus about the relevance of OSPs in our societies; (iii) the lack of agreement on the values and principles that should inform their conduct. I shall deal with (ii) and (iii) in the second part of this chapter. Let me focus on (i) now, as expectations about the behaviours of OSPs underpin much of the debate on their role and moral responsibilities.

Users, but also scholars and policy-makers, often expect OSPs to align their goals with the needs of our societies. (Madelin 2011): (McQuail 1992, 47) OSPs are expected to perform their tasks

well and according to principles of efficiency, *justice*, *fairness*, and *respect* of current social and cultural values (emphasis added). (McQuail 1992, 47)

As Shapiro stresses:

in democratic societies, those who control the access to information have a responsibility to support the public interest. [...] these gatekeepers must assume obligation as trustees of the greater good. (Granka 2010, 365)

However, what these obligations may be remains open question. These range from Google's generic motto "don't be evil" to much more specific guidelines concerning the protection of the public interest and the respect for basic democratic principles, e.g. openness, transparency, freedom of the Internet, security, and legal certainty, as identified in the 2011 G8 Deauville Declaration.² At the same time, the international and multicultural contexts in which OSPs operate complicates the definition of their obligations, for it requires an ethical framework able to square the different ethical views and stakeholders' interests that OSPs face.

In this chapter, I will describe the debate on the moral responsibilities of OSPs with respect to managing access to information (section 2) and human rights (section 3). I will then analyse the role and the nature of the responsibilities of OSPs in mature information societies (section 4). (Luciano Floridi 2016) I will conclude the chapter by applying Floridi's *soft ethics* to consider what responsibilities the civic role of OSPs entails and how they should discharge them (section 5).

¹ For a more extensive analysis of the debate on the moral responsibilities of OSPs see (Marianosaria Taddeo and Floridi 2015)

²http://ec.europa.eu/archives/commission_2010-2014/president/news/speeches-statements/pdf/deauville-g8-declaration_en.pdf

2. Managing Access to Information

The organisation and management of the access to information available online raises problems concerning the way in which OSPs select and rank such information. (Negroponte 1996) The research on this topic initially focused exclusively on search engines, with the emergence of the Web 2.0, social networks and news aggregators also became objects of analysis, for these OSPs too can skew users' access to online information.

Introna's and Nissenbaum's article (Introna and Nissenbaum 2006) analyses the role of search engines in defining the scope of access to online information and stresses the relation between such a scope and the development of a pluralistic democratic web. The article advocates for diversity of the sources of information as to a guarantee for the fairness of information filtering processes and the democratic development of the Internet.³ Corporate, market-oriented, interests of the private companies running indexing and ranking algorithms can be jeopardised both these aspects.

The article compares search engines to conventional publishers and suggests that, like publishers, search engines filter information following market-regulations, i.e. according to consumers' tastes and preferences, and favour powerful actors. This promotes the so-called "rich gets richer" dynamic. (Huberman 2003) Namely, websites include links to popular websites, in order to be ranked higher by search engines, this makes the popular site even more famous and, thus, ranked even higher. Conversely, this system makes less famous those websites that are already poorly linked and hence ranked lower. This vicious circle eventually leads to expunging niche, less renowned sources of information from the web, thus endangering the plurality and diversity of the Internet. Two corrective mechanisms are then suggested: embedding the "value of fairness as well as [a] suite of values represented by the ideology of the Web as a public good" (Santoro 1998, 30) in the design of indexing and ranking algorithms, and transparency of the algorithms used by the search engines.

The call for transparency of the search and ranking algorithms is not uncontroversial, (Granka 2010) as disclosing the structure of the algorithms could facilitate malicious manipulations of search results, while not bringing any advantage to the average non-tech-savvy user. It is also unclear to what extent market-regulation of the Internet

³ Other relevant contributions on the diversity of the sources and information available on the web have been provided in the literature in information and communication studies, law, and public policy. The interested reader may find useful the following articles (Pandey et al. 2005; Pasquale 2006; Hargittai 2007; Van Couvering 2007; Diaz 2008; Hinman 2008; Lewandowski 2011).

really threatens the diversity of the information sources. On the contrary, Granka maintains that, in a market-regulated environment, companies will devote their attention to the quality of the search results, which will have to meet the different needs and expectations of each single user, thereby guaranteeing diversity of the sources and fairness of the ranking. In this respect, the article also objects to the analogy describing OSPs, search engines in particular, as publishers. Search engines

parse through the massive quantities of available information [...], the mechanisms whereby content is selected for inclusion in a user's search result set is fundamentally different than in traditional media—search engines universally apply an algorithm, whereas traditional news media makes case-by-case decisions.(Granka 2010, 365)

OSP's editorial role is also analysed in Goldman's article,(Goldman 2006) which describes search engine bias as a necessary consequence of OSP's editorial work,

to prevent anarchy and preserve credibility, search engines unavoidably must exercise some editorial control over their systems. In turn, this editorial control will create some bias.(Goldman 2006, 119)

While the analysis recognises that such filtering may reinforce existing power structure in the web and bias search results toward website with economic power,(Elkin-Koren 2001) it also advocates that the correction of search bias will follow from the fine-tuning of the search results with users' preferences. No extra moral responsibilities should be ascribed to OSPs in this respect. A similar position has also been expressed in Lev-On's and Manin's papers.(Lev-On and Manin 2007; Lev-On 2009) The articles suggest that, given the huge set of data filtered by search engines, unintentional exposure to information conveying diverse and non-main stream information cannot be excluded.

The issue then arises as to whether incidental exposure to diverse information may suffice to maintain an open, pluralistic web and an unbiased access to information. For the tailoring of search results leads to an organic refinement of searching and ranking algorithms so to accommodate users' preferences and, at the same time, it may correct the distortion operated by OSPs and foster the diversity of the sources and the information circulating in the web. This is, for example, the argument proposed by Goldman.(Goldman 2006)

However, personalization of search result is far from being the solution to the problems of information filtering. It has been objected to as a threat to democratic practices. The misuse of social media to temper with US presidential elections, for example, have showed the concrete risks that personalization can pose to democratic

processes.(Persily 2017) Custom-tailoring of search results challenges the affirming of deliberative democracies, insofar as it undermines the possibilities of sharing different cultural backgrounds, view, and experiences, reduces the chances that users would be exposed to sources, opinions, and information which may support or convey different world views. Several analyses have raised this issue.⁴

Sunstein, for example, criticises any approach relying on users' preferences and market-dynamics to shape information access and communication:

it is much too simple to say that any system of communication is desirable if and because it allows individual to see and hear what they choose. Unanticipated, unchosen exposures, shared experiences are important too.(Sunstein 2001, 131)

He argues that a custom-tailored access to information leads to a world fragmented in different versions of “the daily me”(Negroponte 1996) in which each individual would be isolated in her/his *informational bubble*,(Pariser 2012) from which conflicting views are excluded. Pariser has proposed a similar argument,(Pariser 2012) stressing that the personalisation of access to online information promotes the emerging personal *informational ecosystems* that undermine the emergence and fostering of democracy and pluralism.

The combination of personalisation of information with AI-based profiling and nudging techniques has made the risks highlighted by Pariser and Sunstein even more serious. For AI can undermine and erode human self-determination due to the invisibility and influencing power (Mariarosaria Taddeo and Floridi 2018)

With their predictive capabilities and relentless nudging, ubiquitous but imperceptible, AI systems can shape our choices and actions easily and quietly. [...] AI may also exert its influencing power beyond our wishes or understanding, undermining our control on the environment, societies, and ultimately on our choices, projects, identities, and lives. The improper design and use of invisible AI may threaten our fragile, and yet constitutive, ability to determine our own lives and identities and keep our choices open. (Mariarosaria Taddeo and Floridi 2018, 752)

AI may empower OSPs to do more things, from preventing suicide(Gomes de Andrade et al. 2018) to offer more tailored content and enhance the filter bubble mechanism. Establishing appropriate governance and defining the moral responsibilities of OSPs are

⁴ Concern for the implication that filtering of information may have for participative democracy and the nature of the web have also been expressed in (Lessig 1999).

necessary steps to ensure that the possible misuses (Luciano Floridi et al. 2018) of AI, alongside the other services that OSPs offer, will not trump proper uses of this technology.

3. Human Rights: Harmful Content and Internet Censorship

In a commentary, Vinton Cerf touched directly on the role of OSPs in preventing harmful uses of the web stating that

it does seem to me that among the freedoms that are codified [...] should be the right to expect freedom (or at least protection) from harm in the virtual world of the Internet. The opportunity and challenge that lies ahead is how Internet Actors will work together not only to do no harm, but to increase freedom from harm. (Cerf 2011, 465)

Following this view, ascribing moral responsibilities to OSPs with respect to the circulation of harmful material may be desirable. However, this also raises further problems when considering the duties that these responsibilities may prompt, e.g. policing and filtering the content available online, and the possible breaches of individual rights, such as freedom of speech and information.⁵

Striking the balance between security of users and users' right to freedom of speech and information is problematic. While OSPs should be held responsible for respecting it, it should not be their duty to define arbitrarily and independently the balance and decide, for example, how much freedom of information can be sacrificed in the name of users' safety and security. This is not desirable for OSPs - who may find themselves standing between laws curtailing freedom of speech, information, and anonymity, and citizens' right to Internet freedom; nor is it desirable for societies, for it may lead to a privatization of the judging power and poses issues of transparency and accountability. (Gerry and Berova 2014) Consider, for example, OSPs acting as both the "judge and the jury"⁶ with respect to the decision of the European Court of Justice on the right to be forgotten (Rosen 2015; Luciano Floridi 2015). To avoid this risk, it is crucial to separate the responsibilities of OSPs from the duties and authority of the state and supranational authorities, which should set clear norms shaping OSPs conduct with respect to human rights.

⁵ Internet censorship and freedom of speech have also been at the centre of a debate focusing on the balance between individual rights and state power. This topic does not fall within the scope of this article. The interested reader may find useful (Mariasosaria Taddeo 2013b; 2014).

⁶<http://www.telegraph.co.uk/technology/google/10967211/Google-is-the-judge-and-jury-in-the-right-to-be-forgotten.html>.

At the moment, however, the debate focuses on whether OSPs have any responsibilities with respect to human rights. The discussion has been reignited in late 2018, when it became clear that Google was considering entering into the Chinese market again,⁷ and before that in 2012 when the UN Human Rights Council declared the right to Internet Freedom a human right. This right calls on state to promote and foster access to the Internet and to ensure that the rights to freedom of expression and information, as presented in Article 19 of the Universal Declaration of Human Rights, would be upheld online as well as offline.⁸ (Wettstein 2012; Lucchi 2013) In the same vein, a report⁹ released by the UN in 2011 stressed that

[g]iven the Internet has become an indispensable tool for realizing a range of human rights, combating inequality, and accelerating development and human progress, ensuring universal access to the Internet should be a priority for all States.

Some authors, like Chen,(Chen 2009) have argued that OSPs, and in particular social networks, bear both legal and moral responsibilities to respect human rights because of the centrality of their role on the web and of their knowledge of the actions undertaken by other agents, e.g. governmental actors, in the network.

At the same time, both the Universal Declaration of Human Rights and the Resolution on the Promotion, Protection and Enjoyment of Human Rights on the Internet¹² mainly address states actors, making problematic the expectation that OSPs should be held responsible for respecting and fostering human rights (Karp 2009). This problem does not concern exclusively OSPs. It also involves several other private actors, especially those working in the international market (Anderson 2012), making this issue a central topic in the literature on business ethics. Consider, for example, the cases of human rights violation reported by the Human Rights Watch and concerning energy industries, such as Royal Dutch/Shell's operating in Nigeria, British Petroleum in Colombia, and Total and Unocal's construction works in Burma and Thailand.¹⁰

Santoro (Santoro 1998) and Brenkert (Brenkert 2009; Santoro 1998) stress the need to consider the context in which companies act before assessing their moral responsibilities. Santoro proposes a "fair share theory" to assess the moral responsibilities

⁷ See here for the recent debate on Google's operation Dragonfly aiming at reintroducing Google in the Chinese market <https://www.bloomberg.com/news/features/2018-11-08/google-never-stopped-trying-to-go-to-china>

⁸ Resolution on "The Promotion, Protection and Enjoyment of Human Rights on the Internet" (Human Rights Council of the United Nations 2012).

⁹ http://www2.ohchr.org/english/bodies/hrcouncil/docs/17session/A.HRC.17.27_en.pdf

¹⁰ <http://www.hrw.org/reports/1999/enron/>

of multinational companies complying with the requests of an authoritarian state. According to this theory, the responsibilities for respecting and fostering human rights are ascribed differently depending on the capability of the company. In particular, Santoro poses two conditions for evaluating the capabilities of private companies and ascribing responsibilities: (i) it has to be able to make the difference, i.e. change the local government policies; and (ii) it has to be able to withstand the losses and damages that may follow from diverting from the local government directions and laws.

Both conditions shed little light on OSPs responsibilities with respect to human rights, as they can be used to support both sides of the argument. For example, one may note that major OSPs may have the means to spur a change and that they could withstand the consequences of diverging from the directions of local governments. Facebook's CEO commented on this point stating that

Today we're blocked in several countries and our business is still doing fine. If we got blocked in a few more, it probably wouldn't hurt us much either.¹¹

At the same time, however, condition (i) offers a justification to any private company who may breach human rights. For it is hard to determine the (in)ability to make the difference in governmental policies and this may allow a company to claim no moral responsibilities for any violation of the human rights in which it may partake while collaborating or complying with a local government's directives. Condition (ii) is at best too generic, for justifies breaches of (possibly any) human rights when respecting them would harm a company's profit.

Other scholars support a different view and hold private actors morally responsible for the protection and fostering of human rights (Arnold 2010; Cragg 2010; Wettstein 2012). The preamble of the Universal Declaration of Human Rights is often mentioned to support this point. It states that

every individual and every organ of society, keeping this Declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedoms [...].¹²

The responsibility of all members of societies to promote human rights has been remarked and further elaborated in the Declaration of Human Duties and Responsibilities (the so-called Valencia Declaration),¹³ which focuses on the moral duties and legal responsibilities

¹² <http://www.un.org/Overview/rights.html>

¹³ <http://www.unesco.org/bpi/eng/unescopress/1999/99-92e.shtml>

of the members of the global community to observe and promote respect for human rights and fundamental freedoms. The global community encompasses state and non-state actors, individuals and groups of citizens, as well as the private and the public sector. Private companies are also expressly mentioned as responsible for promoting and securing the human rights set forth in the Universal Declaration of Human Rights in the preamble of the UN Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises.¹⁴

One of the cases about the moral responsibilities of OSPs and the respect of human rights (freedom of speech in particular) that has been most debated in the relevant literature concerns the complying of some OSPs, like Google, Microsoft, Yahoo! with the requests made by the Chinese government on Internet censorship and surveillance. OSPs have responded in different ways. Some, like Google (in 2010) and Yahoo! (in 2015), decided not to comply with these requests and withdrew from the Chinese market. Others refer to the so-called consequentialist argument to justify their business in China or in context in which human rights are under a sharp devaluative pressure.¹⁵

The argument was first provided by Google to support its initial compliance with the Chinese government requests. It holds that, while the Chinese people could not access some sources of information due to the local censorship, they could still use Google's services to access a whole lot more of online information. Facebook and Microsoft have proposed the same argument. As Facebook's CEO states

I believe we have a responsibility to the millions of people in these countries who rely on Facebook to stay in touch with their friends and family every day. If we ignored a lawful government order and then we were blocked, all of these people's voices would be muted, and whatever content the government believed was illegal would be blocked anyway.¹⁶

Those who maintain that private companies ought to comply with human rights, because these are preminent to local governmental actions, criticise the consequentialist argument.

¹⁴ The document has been approved on August 13, 2003 by the United Nations Sub-Commission on the Promotion and Protection of Human Rights. <http://business-humanrights.org/en/united-nations-sub-commission-norms-on-business-human-rights-explanatory-materials>

¹⁵ Governmental censorship has spread throughout the globe with the Internet, the literature on OSPs' responsibilities in China casts an interesting light on a problem that concerns several other countries around the world (Aceto et al. 2015).

¹⁶ <https://m.facebook.com/zuck/posts/10101974380267911>

Multinationals [...] should respect the international rights of those whom they affect, especially when those rights are of the most fundamental sort.(Donaldson 1992, 68)

Dann and Haddow (Dann and Haddow 2007) maintain the same position and ascribe moral responsibilities to company executives, who make the final decisions and shape the companies conduct.

Brenkert provides a different account and suggest the notion of ‘obedient complicity’,

[t]his would occur when a business follows laws or regulations of a government to act in ways that support its activities that intentionally and significantly violate people’s human rights (Brenkert 2009, 459).

The notion rests on the idea of permissible moral compromise. This is the compromise that agents make with themselves to forgo or even violate some of their moral principles to fulfil other, more important, values. OSPs operating in countries requiring Internet censorship face conflicting responsibilities towards different stakeholders, not just users, but also local employees and shareholders. For this reason, these OSPs may be justified in engaging in a moral compromise that may violate human rights, if this enables the achievement of more important objectives.

Brenkert’s article proposes the so-called ‘all thing considered’ approach to assess whether an OSP may be in the position to violate its moral principles or universal rights. The article considers the immediate context in which OSPs operate and the multiple responsibilities that this implies. For example, an OSP may be put in the position to compromise its moral values or to disregard human rights and comply with local laws lest its employees working in a given territory be held liable for the company’s decision or to avoid damaging the shareholders’ interest. According to Brenkert’s article, a moral compromise is justified in these cases.

As any consequentialist approach, the ‘all thing considered’ enables one to cover a wide range of responsibilities of private companies and assess them with regard to the company’s maximum utility. This is problematic, because the assessment of the moral responsibilities of a company depends on the scope of the context that is being considered. If one focuses on the immediate context, e.g. a specific country and the company’s interest in that country, the approach may facilitate the acceptance of moral compromise and justify disregarding human rights. But if a wider context is taken in consideration, e.g. the global reputation of the company and the impact that breaching human rights may have

on the company public image, then the approach may justify compromising shareholders' interests for the sake of human rights. Hence, while the approach was intended to mitigate the burden of OSPs' moral responsibilities, it actually offers one more argument in favour of OSPs' duty to respect and foster human rights.

Given global relevance and impact that OSPs have on information societies. It is increasingly less acceptable to maintain that OSPs, as private companies, are only responsible to their employees and shareholders (Chen 2009; Mariarosaria Taddeo and Floridi 2015; Laidlaw Forthcoming; King et al. 2019). This is a point highlighted, for example, in the report of the Special Rapporteur on freedom of expression to the Human Rights Council, David Kaye, who stressed that

Among the most important steps that private actors should take is the development and implementation of transparent human rights assessment procedures. They should develop and implement policies that take into account their potential impact on human rights.¹⁷

At the same time, the specification of the responsibilities of OSPs requires contextualising OSPs' role within the broader changes brought about by the information revolution and the role that they play in *mature* information societies.(Luciano Floridi 2016) This will be the task of the next section.

4. The Civic Role of OSPs in Mature Information Societies

Floridi defines mature information societies as societies whose members have developed an *unreflective and implicit expectation* to be able to rely on information technologies to perform tasks, interact with each other and with the environment.(Luciano Floridi 2016) Over the past two decades we have witnessed a growing reliance on these technologies for developing a number of tasks, ranging from individual daily practices to matters pertaining public life and the welfare of our societies. More recently with big data and AI, we have started to rely on computing technology to take sensitive decisions, rather than just perform tasks, ranging from medical diagnosis to the administration of justice.(Yang et al. 2018)24/04/2020 09:05:00 As main designers and developers of information technologies, OSPs play a central role in mature information societies. Some contributions to the literature identify this role as *information gatekeeping*.(Mariarosaria Taddeo and Floridi 2017)

¹⁷ <http://www.ohchr.org/EN/Issues/FreedomOpinion/Pages/PrivateSectorintheDigitalAge.aspx>

'Gatekeepers' are agents who have a central role in the management of resources and infrastructures that are crucial for societies.(Lewin 1947) The notion of gatekeepers has been studied in business ethics, social sciences, legal, and communication studies since the 1940s. For example, in 1947, Lewin famously described mothers and wives as gatekeepers, for they were the ones deciding and managing the access and consumption of food for their families (Lewin 1947)

According to Metoyer-Duran's definition(Metoyer-Duran 1993) agent is a gatekeeper if that agent

(a) controls access to information, and acts as an inhibitor by limiting access to or restricting the scope of information; and (b) acts as an innovator, communication channel, link, intermediary, helper, adapter, opinion leader, broker, and facilitator.

Conditions (a) and (b) entail moral responsibilities, insofar as gatekeepers have a regulatory function. The private nature of gatekeepers, along with the responsibilities entailed by (a) and (b), is one of the cruxes generating the problems concerning their moral responsibilities.(Freeman 1999; Black 2001)

In our societies, OSPs would be information gatekeepers, as they control access to and flows of data and information.(Calhoun 2002) (Shapiro 2000; Hinman 2005; Laidlaw 2008) As gatekeepers, OSPs exercise a regulatory function,(Metoyer-Duran 1993) which entails moral responsibilities toward the public good. Framing the discussion on the moral responsibilities of OSPs using the notion of gatekeepers unveils OSPs' public role, and explains the expectations that users and regulators have with respect to their behaviour.

However, the gatekeeping role describes only partially the function that OSPs have acquired in our societies and hence the responsibilities that they bear. OSPs increasingly play a more central role in public and policy debate working to influence national politics and international relations.(Broeders and Taylor Forthcoming) In this respect, they differ quite radically from other transnational corporations.(Scherer and Palazzo 2011) Broders and Taylor argue that, OSPs behave as political agents, and thus they should bear corporate *political* responsibilities:

OSP exercise power over their users and are a counter power to state power in all corners of the world. [...] they are also political actors who merit serious diplomatic attention owing to their vital role in digital life [...].(Broeders and Taylor Forthcoming)

Also this conceptualization of OSPs' role is limited, for it focuses mostly on OSPs' impact on the international arena and disregards their central role as designers of the online

environment. This is a key aspect that neither the gatekeeping nor the political conceptualization of OSPs grasp fully and that can be better analysed when and contextualising OSPs' role within the conceptual changes brought about by the information revolution.(L. Floridi 2014a) The blurring of the line dividing real and virtual is one of these changes.

This blurring has been noted and analysed by social scientists(Price 2002a) (Price 2002b)and psychologists,(Hasebrink 2008) as well as by philosophers.(Coole et al. 2010; M. Taddeo 2012; Luciano Floridi 2017) Before the information revolution, being real was tantamount (coupled) to being tangible, perceivable, physical in the Newtonian sense. The information revolution *decoupled* real and tangible and coupled real and virtual. Reality in the information age includes virtual entities and environments along with tangible (physical) ones, making *interactability* - and no longer tangibility - the mark of reality(L. Floridi 2013; M. Taddeo 2012).(L. Floridi 2013) Think for example of the way in which Alice and her grandfather Bob enjoy their music: Bob may still own a collection of his favourite vinyl, while Alice simply logs in her favourite streaming service (she does not even own the files on her computers). E-books, movies, pictures all serve as good examples of the case in point. This decoupling and recoupling process has widened the range of what we consider real and has also blurred the very distinction between online and offline environment. As Floridi put it:

“onlife” designates the transformational reality that in contemporary developed societies.(L. Floridi 2014b, 61)

One difference still stands, though, that is that online environment is designed, shaped, and developed by humans more than the physical one and tech-companies, including OSPs, often lead this process. The services that enable our access to, and which shape our activities in, the online environment have a more central role than the one of gatekeepers or political actors. For through their services, they shape our affordances. They contribute to inform the space of opportunities in which individuals and societies can flourish and evolve, and eventually impact how we understand reality and how with interact with each other and with the environment.

As leading designers of online environments, OSPs make decisions that impact private and public lives, social welfare and individual wellbeing. For this reason, OSPs play a *civic* role in mature information societies. And, hence, they have civic responsibilities with respect to the way they conduct their business. These responsibilities require OSPs to consider the impact of their services and business models on the societies in which they

operate and take into account potential ethical benefits and risks. Ethical considerations need to become a constitutive part of their design process and business models. OSPs can discharge these civic responsibility by ensuring that

Social acceptability or, even better, *social preferability* must be the guiding principles for any [digital innovation] project with even a remote impact on human life, to ensure that opportunities will not be missed.(Luciano Floridi and Taddeo 2016)

Given the international and multicultural contexts in which OSPs operate, the specification of what is socially acceptable and preferable will be effective– i.e. it will be regarded as ethically sound, appropriate, and desirable– only insofar as it will rest on an approach able to reconcile the different ethical views and stakeholders’ interests that OSPs face. Human rights and other principles(Cowls and Floridi 2018) offer guidance as to what fundamental values should shape OSPs practices, but these will have to be implemented considering different cultural and moral values. Frictions between fundamental and context-dependent values are to be expected, and solving them will require collaborations among different stakeholders, including OSPs themselves, national and supranational political actors, as well as civil societies. In this scenario, OSPs (as well as policy- and decision-makers) need to develop appropriate analyses to consider opportunities to harness and ethical risks to avoid or mitigate. The civic role of OSPs requires them to develop such analyses in the first place and to establish processes to ensure the ethical governance of their services.

5. Conclusion: The Duty of Ethical Governance

Ethical governance of the digital should not be confused with the legal regulations in place to shape the design and use of digital technologies, nor is this something that erodes the space of legal compliance. Floridi distinguishes between hard ethics and soft ethics.(Luciano Floridi 2018) If hard ethics is what enable us to shape fair laws or to challenge unfair ones, soft ethics goes over and above legal compliance. In some corners of the world, where laws respect and foster fundamental values, the governance of the digital is a matter of soft ethics. As he put it:

[C]ompliance is necessary but insufficient to steer society in the right direction. Because digital regulation indicates what the legal and illegal moves in the game are, so to speak, but it says nothing about what the good and best moves could be to win the game—that is, to have a better society. This is the task of both digital ethics [...].(Luciano Floridi 2018, 4)

At least when operating in open and democratic societies, the responsibilities of OSPs pertain to the ethical governance of the digital and soft ethics is essential to discharge them. OSPs need to embed ethical (Luciano Floridi and Taddeo 2016) considerations in the design and development of their services since the beginning to consider possible risks, opportunities, prevent unwanted consequences and size the cost of missed opportunities. (Luciano Floridi 2014; Mariarosaria Taddeo and Floridi 2018) OSPs need to develop ethical foresight analyses, (Luciano Floridi 2014) which will offer a step-by-step evaluation of the impact of practices or technologies deployed in a given organization on crucial aspects – like privacy, transparency, or liability – and may identify preferable alternatives and risks-mitigating strategies.

This will bring a dual advantage. As an opportunity strategy, foresight methodologies can help leverage ethical solutions. As a form of risk management, they can help prevent or mitigate costly mistakes, by avoiding decisions or actions that are ethically unacceptable. This will lower the opportunity costs of choices not made or options not seized for lack of clarity or fear of backlash. Ethical governance of the digital is a complex, but necessary, task. The alternative may lead to devaluation of individual rights and social values, rejection of OSPs, and missing the opportunities that digital technologies bring to the benefit of societies.

References

- Aceto, Giuseppe, Alessio Botta, Antonio Pescapè, Nick Feamster, M. Faheem Awan, Tahir Ahmad, and Saad Qaisar. 2015. 'Monitoring Internet Censorship with UBICA'. In *Traffic Monitoring and Analysis*, edited by Moritz Steiner, Pere Barlet-Ros, and Olivier Bonaventure, 143–57. Lecture Notes in Computer Science 9053. Springer International Publishing. http://link.springer.com/chapter/10.1007/978-3-319-17172-2_10.
- Anderson, Geraint. 2012. *Just Business*. London: Headline.
- Arnold, Denis G. 2010. 'Transnational Corporations and the Duty to Respect Basic Human Rights'. *Business Ethics Quarterly* 20 (3): 371–399.
- Black, Julia. 2001. 'Decentring Regulation: Understanding the Role of Regulation and Self Regulation in a "Post-Regulatory" World'. *Current Legal Problems* 54 (1): 103–46.
- Brenkert, George G. 2009. 'Google, Human Rights, and Moral Compromise'. *Journal of Business Ethics* 85 (4): 453–78. <https://doi.org/10.1007/s10551-008-9783-3>.
- Broeders, Dennis, and Linnet Taylor. Forthcoming. 'Does Great Power Come with Great Responsibility? The Need to Talk about Corporate Political Responsibility'. In , edited by Mariarosaria Taddeo and Luciano Floridi. Law, Governance and Technology Series. Springer Berlin Heidelberg New York London.
- Calhoun, Craig J., ed. 2002. *Dictionary of the Social Sciences*. New York: Oxford University Press.
- Cerf, Vinton G. 2011. 'First, Do No Harm'. *Philosophy & Technology* 24 (4): 463–65. <https://doi.org/10.1007/s13347-011-0056-1>.

- Chen, Stephen. 2009. 'Corporate Responsibilities in Internet-Enabled Social Networks'. *Journal of Business Ethics* 90 (4): 523–36. <https://doi.org/10.1007/s10551-010-0604-0>.
- Coole, Diana, Samantha Frost, Jane Bennett, Pheng Cheah, Melissa A. Orlie, and Elizabeth Grosz. 2010. *New Materialisms: Ontology, Agency, and Politics*. Duke University Press Books.
- Cowls, Josh, and Luciano Floridi. 2018. 'Prolegomena to a White Paper on an Ethical Framework for a Good Ai Society'. SSRN Scholarly Paper ID 3198732. Rochester, NY: Social Science Research Network. <https://papers.ssrn.com/abstract=3198732>.
- Cragg, Welsey. 2010. 'Business and Human Rights : A Principle and Value-Based Analysis'. In *The Oxford Handbook of Business Ethics*, edited by George G. Brenkert and Tom L. Beauchamp. Oxford University Press.
- Dann, Gary Elijah, and Neil Haddow. 2007. 'Just Doing Business or Doing Just Business: Google, Microsoft, Yahoo! And the Business of Censoring China's Internet'. *Journal of Business Ethics* 79 (3): 219–34. <https://doi.org/10.1007/s10551-007-9373-9>.
- Diaz, Amanda. 2008. 'Through the Google Goggles: Sociopolitical Bias in Search Engine Design'. In *Web Search*, edited by Amanda Spink and Michael Zimmer, 11–34. Information Science and Knowledge Management 14. Springer Berlin Heidelberg. http://link.springer.com/chapter/10.1007/978-3-540-75829-7_2.
- Donaldson, Thomas. 1992. *The Ethics of International Business*. The Ruffin Series in Business Ethics. New York: Oxford Univ. Press.
- Elkin-Koren, Niva. 2001. 'Let the Crawlers Crawl: On Virtual Gatekeepers and the Right to Exclude Indexing'. *U. DAYTON L. REV.* 26: 179–88.
- Floridi, L. 2013. *Ethics of Information*. Oxford, New York: Oxford University Press.
- Floridi, L. 2014a. *The Fourth Revolution, How the Infosphere Is Reshaping Human Reality*. Oxford: Oxford University Press.
- Floridi, Luciano. 2014b. *The Onlife Manifesto - Being Human in a Hyperconnected Era*. Dordrecht: Springer. <http://www.springer.com/philosophy/epistemology+and+philosophy+of+science/book/978-3-319-04092-9>.
- Floridi, Luciano. 2014. 'Technoscience and Ethics Foresight'. *Philosophy & Technology* 27 (4): 499–501. <https://doi.org/10.1007/s13347-014-0180-9>.
- Floridi, Luciano. 2015. 'Should You Have The Right To Be Forgotten On Google? Nationally, Yes. Globally, No.' *New Perspectives Quarterly* 32 (2): 24–29. <https://doi.org/10.1111/npqu.11510>.
- Floridi, Luciano. 2016. 'Mature Information Societies—a Matter of Expectations'. *Philosophy & Technology* 29 (1): 1–4. <https://doi.org/10.1007/s13347-016-0214-6>.
- Floridi, Luciano. 2017. 'Digital's Cleaving Power and Its Consequences'. *Philosophy & Technology* 30 (2): 123–29. <https://doi.org/10.1007/s13347-017-0259-1>.
- Floridi, Luciano. 2018. 'Soft Ethics and the Governance of the Digital'. *Philosophy & Technology* 31 (1): 1–8. <https://doi.org/10.1007/s13347-018-0303-9>.
- Floridi, Luciano, Josh Cowls, Monica Beltrametti, Raja Chatila, Patrice Chazerand, Virginia Dignum, Christoph Luetge, et al. 2018. 'AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations'. *Minds and Machines* 28 (4): 689–707. <https://doi.org/10.1007/s11023-018-9482-5>.
- Floridi, Luciano, and Mariarosaria Taddeo. 2016. 'What Is Data Ethics?' *Philosophical Transactions A*.

- Freeman, Jody. 1999. 'Private Parties, Public Functions and the New Administrative Law'. SSRN Scholarly Paper ID 165988. Rochester, NY: Social Science Research Network. <http://papers.ssrn.com/abstract=165988>.
- Frosio, Giancarlo F. 2018. 'Why Keep a Dog and Bark Yourself? From Intermediary Liability to Responsibility'. *International Journal of Law and Information Technology* 26 (1): 1–33. <https://doi.org/10.1093/ijlit/eax021>.
- Gerry, Felicity, and Nadya Berova. 2014. 'The Rule of Law Online: Treating Data like the Sale of Goods: Lessons for the Internet from OECD and CISG and Sacking Google as the Regulator'. *Computer Law & Security Review* 30 (5): 465–481.
- Goldman, Eric. 2006. 'Search Engine Bias and the Demise of Search Engine Utopianism'. SSRN Scholarly Paper ID 893892. Rochester, NY: Social Science Research Network. <http://papers.ssrn.com/abstract=893892>.
- Gomes de Andrade, Norberto Nuno, Dave Pawson, Dan Muriello, Lizzy Donahue, and Jennifer Guadagno. 2018. 'Ethics and Artificial Intelligence: Suicide Prevention on Facebook'. *Philosophy & Technology* 31 (4): 669–84. <https://doi.org/10.1007/s13347-018-0336-0>.
- Granka, Laura A. 2010. 'The Politics of Search: A Decade Retrospective'. *The Information Society* 26 (5): 364–74. <https://doi.org/10.1080/01972243.2010.511560>.
- Hargittai, Eszter. 2007. 'The Social, Political, Economic, and Cultural Dimensions of Search Engines: An Introduction'. *Journal of Computer-Mediated Communication* 12 (3): 769–77. <https://doi.org/10.1111/j.1083-6101.2007.00349.x>.
- Hasebrink, Uwe. 2008. *Comparing Children's Online Opportunities and Risks across Europe: Cross-National Comparisons for EU Kids Online : [European Research on Cultural, Contextual and Risk Issues in Children's Safe Use of the Internet and New Media (2006-2009)]*. [London]: EU Kids Online. <http://www.eukidsonline.net/>.
- Hinman, Lawrence. 2005. 'Esse Est Indicatio in Google: Ethical and Political Issues in Search Engines'. *International Review of Information Ethics* 3 (6): 19–25.
- . 2008. 'Searching Ethics: The Role of Search Engines in the Construction and Distribution of Knowledge'. In *Web Search*, edited by Prof Dr Amanda Spink and Michael Zimmer, 67–76. Information Science and Knowledge Management 14. Springer Berlin Heidelberg. http://link.springer.com/chapter/10.1007/978-3-540-75829-7_5.
- Huberman, Bernardo A. 2003. *The Laws of the Web: Patterns in the Ecology of Information*. New Ed edition. Cambridge, Mass.; London: MIT Press.
- Human Rights Council of the United Nations. 2012. 'U.N. Human Rights Council: First Resolution on Internet Free Speech'. http://www.loc.gov/lawweb/servlet/lloc_news?disp3_1205403231_text.
- Introna, Lucas D., and Helen Nissenbaum. 2006. 'Shaping the Web: Why the Politics of Search Engines Matters'. SSRN Scholarly Paper ID 222009. Rochester, NY: Social Science Research Network. <http://papers.ssrn.com/abstract=222009>.
- Karp, David Jason. 2009. 'Transnational Corporations in "Bad States": Human Rights Duties, Legitimate Authority and the Rule of Law in International Political Theory'. *International Theory* 1 (01): 87. <https://doi.org/10.1017/S1752971909000074>.
- King, Thomas C., Nikita Aggarwal, Mariarosaria Taddeo, and Luciano Floridi. 2019. 'Artificial Intelligence Crime: An Interdisciplinary Analysis of Foreseeable Threats and Solutions'. *Science and Engineering Ethics*, February. <https://doi.org/10.1007/s11948-018-00081-0>.
- Laidlaw, Emily. Forthcoming. 'Myth or Promise? The Corporate Social Responsibilities of Online Service Providers for Human Rights'. In *The Responsibilities of Online Service*

- Providers*, edited by Mariarosaria Taddeo and Luciano Floridi. Law, Governance and Technology Series. Springer Berlin Heidelberg New York London.
- . 2008. 'Private Power, Public Interest: An Examination of Search Engine Accountability'. *International Journal of Law and Information Technology* 17 (1): 113–45. <https://doi.org/10.1093/ijlit/ean018>.
- Lessig, Lawrence. 1999. *Code: And Other Laws of Cyberspace*. New York: Basic Books.
- Lev-On, Azi. 2009. 'The Democratizing Effects of Search Engine Use: On Chance Exposures and Organizational Hubs'. SSRN Scholarly Paper ID 1481901. Rochester, NY: Social Science Research Network. <http://papers.ssrn.com/abstract=1481901>.
- Lev-On, Azi, and B. Manin. 2007. 'Happy Accidents: Deliberation and Online Exposure to Opposing Views'. In *Forthcoming In: Davies T (Ed) Online Deliberation: Design, Research and Practice*.
- Lewandowski, Dirk. 2011. 'The Influence of Commercial Intent of Search Results on Their Perceived Relevance'. Preprint. 8 February 2011. <http://eprints.rclis.org/17232/>.
- Lewin, Kurt. 1947. 'Frontiers in Group Dynamics'. *Human Relations* 1 (2): 143–53.
- Lucchi, Nicola. 2013. 'Internet Content Governance and Human Rights'. *Vanderbilt Journal of Entertainment and Technology Law* 16: 809.
- Madelin, Robert. 2011. 'The Evolving Social Responsibilities of Internet Corporate Actors: Pointers Past and Present'. *Philosophy & Technology* 24 (4): 455–61. <https://doi.org/10.1007/s13347-011-0049-0>.
- McQuail, Denis. 1992. *Media Performance: Mass Communication and the Public Interest*. London ; Newbury Park, Calif: Sage Publications.
- Metoyer-Duran, Cheryl. 1993. 'Information Gatekeepers'. *Annual Review of Information Science and Technology (ARIST)* 28: 111–50.
- Negroponte, Nicholas. 1996. *Being Digital*. New edition edition. Rydalmere, N.S.W.: Coronet Books.
- Pandey, Sandeep, Sourashis Roy, Christopher Olston, Junghoo Cho, and Soumen Chakrabarti. 2005. 'Shuffling a Stacked Deck: The Case for Partially Randomized Ranking of Search Engine Results'. In *In Proc. 31st International Conference on Very Large Databases (VLDB)*, 781–792.
- Pariser, Eli. 2012. *The Filter Bubble: What The Internet Is Hiding From You*. London: Penguin.
- Pasquale, Frank A. 2006. 'Rankings, Reductionism, and Responsibility'. SSRN Scholarly Paper ID 888327. Rochester, NY: Social Science Research Network. <http://papers.ssrn.com/abstract=888327>.
- Persily, Nathaniel. 2017. 'Can Democracy Survive the Internet?' *Journal of Democracy* 28 (2): 63–76. <https://doi.org/10.1353/jod.2017.0025>.
- Price, Monroe E. 2002a. *Media and Sovereignty: The Global Information Revolution and Its Challenge to State Power*. Cambridge, Mass.: The MIT Press.
- . 2002b. *Media and Sovereignty: The Global Information Revolution and Its Challenge to State Power*. Cambridge, Mass.: The MIT Press.
- Rosen, Jeffrey. 2015. 'Protecting Privacy on the Internet Is the User's Responsibility'. Philly-Archives. 2015. http://articles.philly.com/2012-03-05/news/31124410_1_new-privacy-policy-facebook-search-terms.
- Santoro, Michael A. 1998. 'Engagement with Integrity: What We Should Expect Multinational Firms to Do about Human Rights in China'. 1998.
- Scherer, Andreas Georg, and Guido Palazzo. 2011. 'The New Political Role of Business in a Globalized World: A Review of a New Perspective on CSR and Its Implications for the Firm, Governance, and Democracy'. *Journal of Management Studies* 48 (4): 899–931. <https://doi.org/10.1111/j.1467-6486.2010.00950.x>.

- Shapiro, Andrew L. 2000. *The Control Revolution: How the Internet Is Putting Individuals in Charge and Changing the World We Know*. 2nd. Printing edition. New York: PublicAffairs.
- Sunstein, Cass R. 2001. *Republic.Com*. With a New afterword by the author edition. Princeton, N.J: Princeton University Press.
- Taddeo, Mariarosaria. 2012. 'Information Warfare: A Philosophical Perspective'. *Philosophy and Technology* 25 (1): 105–20.
- Taddeo, Mariarosaria. 2013a. 'Cyber Security and Individual Rights, Striking the Right Balance'. *Philosophy & Technology* 26 (4): 353–56. <https://doi.org/10.1007/s13347-013-0140-9>.
- Taddeo, Mariarosaria. 2013b. 'Cyber Security and Individual Rights, Striking the Right Balance'. *Philosophy & Technology* 26 (4): 353–56. <https://doi.org/10.1007/s13347-013-0140-9>.
- Taddeo, Mariarosaria. 2014. 'The Struggle Between Liberties and Authorities in the Information Age'. *Science and Engineering Ethics*, September, 1–14. <https://doi.org/10.1007/s11948-014-9586-0>.
- Taddeo, Mariarosaria, and Luciano Floridi. 2015. 'The Debate on the Moral Responsibilities of Online Service Providers'. *Science and Engineering Ethics*, November. <https://doi.org/10.1007/s11948-015-9734-1>.
- Taddeo, Mariarosaria, Floridi, Luciano. eds. 2017. *The Responsibilities of Online Service Providers*. New York, NY: Springer Berlin Heidelberg.
- Taddeo, Mariarosaria, Floridi, Luciano. 2018. 'How AI Can Be a Force for Good': *Science* 361 (6404): 751–52. <https://doi.org/10.1126/science.aat5991>.
- Van Couvering, Elizabeth. 2007. 'Is Relevance Relevant? Market, Science, and War: Discourses of Search Engine Quality'. *Journal of Computer-Mediated Communication* 12 (3): 866–87. <https://doi.org/10.1111/j.1083-6101.2007.00354.x>.
- Wettstein, Florian. 2012. 'Silence as Complicity: Elements of a Corporate Duty to Speak Out Against the Violation of Human Rights'. *Business Ethics Quarterly* 22 (01): 37–61. <https://doi.org/10.1017/S1052150X00000063>.
- Yang, Guang-Zhong, Jim Bellingham, Pierre E. Dupont, Peer Fischer, Luciano Floridi, Robert Full, Neil Jacobstein, et al. 2018. 'The Grand Challenges of Science Robotics'. *Science Robotics* 3 (14): eaar7650. <https://doi.org/10.1126/scirobotics.aar7650>.
- Zhang, Chi, Jinyuan Sun, Xiaoyan Zhu, and Yuguang Fang. 2010. 'Privacy and Security for Online Social Networks: Challenges and Opportunities'. *IEEE Network* 24 (4): 13–18. <https://doi.org/10.1109/MNET.2010.5510913>.