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Data Philanthropy and The Design of The Infraethics for Information Societies

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Abstract

In mature information societies sharing data is increasingly recognised as a crucial means to foster their development. However, competing tensions on data control and ownership, limited technical understanding, and the lack of an adequate governance framework pose serious challenges to attempts to share data among different actors. Data philanthropy, understood as the donation of data from both individuals and private companies, has been proposed as means to meet these challenges. While at first sight data philanthropy may seem an uncontroversial phenomenon, a closer analysis reveals a bewildering network of problems. In this article, I analyse the role of data philanthropy in contemporary societies and the moral problems that it yields. I argue that the solution to these problems rests on the understanding of the *infraethical* nature of data philanthropy and on the design of an ethical framework encompassing the *right* infraethics and the *right* ethics. This is a framework able to address the changes brought about the information revolution and to harness the opportunities that these pose for the prosperity of current and future information societies.

Key words: Data Philanthropy, Design, Ethics, Group Privacy, Individual Privacy, Infraethics, Tragedy of the Commons.

1. Introduction

Data have been defined as a new asset class for mature information societies (World Economic Forum 2011; World Economic Forum 2012). Alongside with new and refined analytic techniques, data are a post-industrial opportunity to innovate and prosper, for

they afford ever-greater complexity, velocity, and global reach. In this scenario, sharing data is increasingly recognised as a crucial means to foster the development of our societies.

However, competing tensions on data control and ownership (Kaisler et al. 2013; Andrejevic 2014; Kostkova et al. 2016), limited technical understanding, and the lack of adequate frameworks for coordination and governance (Mayer-Schönberger and Cukier 2013; Vayena et al. 2015) pose serious obstacles to the attempts to share data among different actors, especially when these include individuals or private corporations. This was the case, for example, in 2014 during the Ebola crisis in West Africa, when gaining access to mobile network operators' data on population movement would have facilitated tracking the spreading of the disease, but proved to be impossible, because of issues concerning commercial interests, users' privacy, national security, as well as regulatory uncertainty.[1]

Issues concerning the sharing of data become even more pressing when considering that a substantial part of this wealth is made of personal data, collected by private companies tracking their users and their digital trails. As stressed by the UN Global Pulse, understanding how to access these data and how to harness their value for the common good is one of the main challenges of this decade.

> "Many governments are […] beginning to consider adopting the technologies needed for real-time analytics, to be sure […] the data that could help give them the additional agility needed to meet the challenges of governance in the 21st century is accumulating behind corporate firewalls".[2]

Data philanthropy, understood as the donation of data from both individuals and private companies, has been proposed as means to meet this challenge (Kirkpatrick 2013). This phenomenon is becoming increasing more popular, as private companies, such as for example, Genentech and Pfizer,[3] and social networks, like Reddit,[4] donate their data and international organisations, like the UN, start to create the infrastructure to facilitate the sharing of corporate-owned data (Kirkpatrick 2013).

[1] http://www.economist.com/news/science-and-technology/21627557-mobile-phone-records-would-help-combat-ebola-epidemic-getting-look

[2] http://www.unglobalpulse.org/blog/data-philanthropy-public-private-sector-data-sharing-global-resilience

[3] http://www.forbes.com/sites/matthewherper/2015/01/06/surprise-with-60-million-genentech-deal-23andme-has-a-business-plan/#500480617927

[4] http://readwrite.com/2010/10/22/thousands_of_reddit_users_donate_their_data_to_sci/

While at first sight data philanthropy may seem an uncontroversial phenomenon, a closer analysis reveals a bewildering network of ethical and legal problems, spurring opposite reactions, namely an utopian and a dystopian one.[5] For the utopian view, data philanthropy is a morally good action, if not a moral obligation, for all members of information societies, as it offers a great opportunity to maximise the value of data and their potential to foster the prosperity of our societies by extending our knowledge, our understanding of the world, governance, and ultimately by favouring the development of open, pluralistic, and just information societies. The increasing use of data to support scientific research (Kurtz et al. 2005), in particular biomedical research (Mittelstadt and Floridi 2015), policy making and humanitarian processes, see for example the use of social data to analyse teenagers' attitude towards contraception in developing countries,[6] and the managing of emergencies, as in the case of IBM[7] donating its weather data to map the spreading of Zika virus, supports this view.

To this scenario, the dystopian view opposes one stressing the risks for individual rights, such as privacy and anonymity, which come with data philanthropy. This view rests on the idea that the trust, transparency, and control that individuals have on the use of their personal data will be constrained, should these data be shared openly. As a result, for this view, data philanthropy is, at best, a morally problematic phenomenon, for data can be repurposed and aggregated to extract new information, which could, for example, breach individual privacy, lead to unduly profiling and unjust discriminations (Sweeney 2013), and alter power balance in societies in favour of those already empowered (Gurstein 2011). The cases of the use of data for governmental surveillance,[8] identity theft, discrimination against minorities (Sweeney 2013), all offer good examples discouraging data philanthropy and highlighting serious moral problems posed by the sharing of data.

These views stress both important advantages and concrete risks that data philanthropy may pose. Thus none of them can be dismissed; at the same time, when considered together, they delineate a paradox. If left unresolved, it can hamper the dissemination of data philanthropy and cost us the opportunity to harness the value of data and the possibilities that sharing them can offer to support the welfare of our societies, as it was the case during the Ebola crisis.

[5] https://www.openrightsgroup.org/campaigns/opendata/open-data-privacy
[6] http://www.unglobalpulse.org/projects/UNFPA-social-data
[7] http://www.healthcareitnews.com/news/ibm-donates-weather-company-data-and-supercomputing-tools-help-stop-spread-zika-virus
[8] https://www.theguardian.com/world/2013/jun/06/us-tech-giants-nsa-data

The paradox of data philanthropy originates from *data malleability* (Moor 1985; Floridi 2016) and is exacerbated by a mistaken view of data as an analogous of natural resources (more on this presently). Data are malleable insofar as they can be shared, repurposed, aggregated, and curated to extract new information. On the one hand, data philanthropy aims at exploiting this malleability, so to use the same resource to produce new information, as stressed by the utopian view. On the other hand, data malleability is such that, once data are shared, they can be used to extract information that could be detrimental for the development of democratic societies.

In this article, I will first discuss the role of data in contemporary societies and the moral problems that data philanthropy yields, including the paradox (sections 2 and 3). I will argue that the solution to these problems rests on the understanding of the moral nature of data philanthropy and that this is better defined as en element of the *infraethics* (Floridi 2012) of mature information societies than as a moral principle (section 4). I will refer to the interaction between infraethics and ethics to address the ethical problems posed by data philanthropy (section 5), before concluding the article with section 6.

2. Data as a public good

In this section, I will focus on the analogy comparing data to natural resources to clear the ground from a potentially misleading approach to data philanthropy before delving deeper into the analysis of its ethical problems.

Data have often been described as the new oil,[9] the air, and water (Mills 2012; Fan and Bifet 2013; Yakowitz 2011) that information societies need to prosper. While this analogy is helpful in highlighting the crucial role that data play in our societies, if taken too far it becomes misleading and risks offering too simplistic a view of data philanthropy.

The analogy with natural resources often leads to address the problem of managing access to data and, in particular, data philanthropy by referring to the tragedy of the commons (Bambauer 2011; Yakowitz 2011; Nagle 2015). This is a well-known model describing the impact of rational, self-interested behaviour on the natural resources of a commons (Hardin 1968, 1998). Given the exhaustible nature of the resources, if left unregulated, rational selfish agents will exploit the environment to find themselves running out of resources. To avoid it, members of the commons need to 'give something back' to the environment by sharing and reducing the consumption of the natural resource, and avoiding polluting them. In this scenario, the action of sharing resources is

[9] https://www.wired.com/insights/2014/07/data-new-oil-digital-economy/

inherently morally good, as it permits the continuous flourishing of the commons, which would otherwise perish.

The analogy between data and natural resources leads one to think that to avoid the impoverishment of data and, hence, of the digital commons (the infosphere), we should start 'giving back' data to the commons, by sharing them openly. This is when the analogy starts to be misleading. It is misleading for two reasons, (i) it confuses the infosphere with a bounded environment (Cerf 2013); and (ii) it presupposes a fake problem, namely the exhaustion of data. Because of (i) and (ii), the analogy leads to the mistaken conclusion, (iii) that sharing data is a moral principle, which should guide the actions of those inhabiting the infosphere. When confronted with the risks of possible breach of individual rights and other morally problematic consequences of data philanthropy, this view exacerbates the paradox, as this now involves a moral principle prompting morally problematic actions.

The lesson of the tragedy of the commons concerning the responsibilities of each individual toward the environment is still valid when considering the infosphere, in that we all need to exert care and respect for the informational environment and the entities inhabiting it (Floridi 2013; Taddeo 2016). However, its application to the case of digital resources requires careful consideration. As stressed in (Greco and Floridi 2004), the analogy with the tragedy of the common should be run *homologically*, and not isomorphically. This is because, while the infosphere can be considered a commons, unlike the commons described by Hardin, the infosphere is not a bounded environment and it can respond to the increasing needs and demands by increasing its capacity. As Greco and Floridi put it:

> "[the infosphere] lacks effectively fixed dimensions. When the agents "put" something into the Infosphere, like an email, one may contend that they are actually "expanding" the digital space, since the latter can be seen as being equivalent to the totality of objects that constitute it" (Greco and Floridi 2004, 74–75).

At the same time, data differ from natural resources, insofar as they are not exhaustible. In collecting data, Alice does not *destroy* or *remove* them from the commons, as she does when she extracts oil or cuts a tree. The collection and use of data does not deplete the infosphere of them. This is a crucial distinction, for if data are not exhaustible, no tragedy of the common will follow from the exploitation of this resource. Hence, agents

inhabiting the infosphere do not have any moral obligation towards data philanthropy, for this is not necessary to ensure or maintain the existence of the infosphere.

More than to natural resource, shared data are comparable to public goods (Tennison 2015). Like libraries, lighthouses or public parks, these data have the potential to foster the welfare of societies and of their members. Public goods are characterised by two properties: they are *non-excludable*, one cannot be excluded from using it, and they are *non-rival* in their consumption, in that being used cannot deplete them. Pure public goods enjoy these properties to the maximum degree, while impure public goods possess them to a lesser degree (Kaul, Grunberg, and Stern 1999). According to this classification, most public goods are impure. And so are data, as while they are non-rivalrous, access to data can be limited.

The analogy with public good is more fitting than the one with natural resources, as it highlights two key aspects of the role of data in information societies. Much like other public goods, (i) data can be used for morally good and morally evil purposes-one may go to the library to read a book to write the next article or to search for a book to learn how to assemble a bomb, showing that (ii) an adequate framework is necessary to regulate the access to data and to ascribe duties and responsibilities.

With the ground cleared from the analogy, the paradox still holds, as data philanthropy can prompt both morally good and evil consequences, but it is weakened, as it does not concern a moral principle. Data philanthropy is better understood as morally ambivalent, a phenomenon which has a dual-use nature (Floridi 2014) and, as such, can prompt serious ethical problems. The next section will delve onto the analysis of such problems.

3. Ethical problems of data philanthropy

From Italian Renaissance to Victorian England, philanthropy has been a constitutive phenomenon of social fabric (Kidd 1996; Gorsky 1999), for it permeates social interactions and contributes to shape them. Lévi-Strauss (Lévi-Strauss 1969), for example, stressed that donations come with a sense of reciprocity, which can work as social glue. At the same time, donations, would these be funding, infrastructures, or other tangible goods, can be a means to create a social status, a reputation, for the donor, fostering her influence and power within society. Indeed this is one of the key reasons behind the philanthropic behaviour of multinational corporations and tycoons (Burke and Logsdon 1996; Carroll 1999; Garriga and Melé 2004; Sahota 2013). When focusing on its impact on society, philanthropy shows to be an intrinsically moral and political

action, as it has a serious potential to alter the power dynamics of the context in which it occurs and to produce both morally good and evil outcomes.

This is also true of data philanthropy. One of the most serious moral problems posed by data philanthropy concerns the risks and sensitivities of making personal data available while, at the same time, maximizing their accessibility and use. For, despite being anonymised and stripped of any reference that may link back to their subjects, once shared and aggregated data may permit re-identification. The possibility of re-identification is not new, but it has grown significantly with the chances to access and aggregate big data sets as well as with the refinement of analytics techniques, which have proven privacy and security measures like as coding and de-identification to be ineffective (Kaye et al. 2012; de Montjoye et al. 2015). Starting with the 90s, re-identification has occurred increasingly more commonly. Consider for example, the well-known case of the identification of the discharge record for the then Governor of Massachusetts (Sweeney 1997), the identification of web search queries of over a half-million costumers of America Online (AOL) clients,[10] and the identification of as many Netflix subscribers, who had shared their movie reviews (Narayanan and Shmatikov 2008; El Emam et al. 2011).

Re-identification and the subsequent breaching of individual privacy risk hindering data philanthropy, because it highlights a tension between individual rights and data sharing. This tension requires careful consideration lest the two be considered antithetical and hence inviting a zero-sum approach, according to which data philanthropy comes at the expenses of individual rights.

This would be quite a dangerous approach, which could prompt an overprotective and detrimental attitude of individuals, companies, and institutions. For individuals would easily prioritise the protection of their rights over the possible benefits of data philanthropy and restrain access to their data, and so would do private companies to secure the trust of their costumers and avoid legal problems. While regulators and research institutions may avoid fostering this practice to elude privacy risks for individuals. As Yakowitz stresses:

> "the collective benefits derived from the data […] will rapidly degenerate if data subjects opt out to protect themselves", (Yakowitz 2011, 4).

[10] http://www.nytimes.com/2006/08/09/technology/09aol.html?_r=0

This approach would cripple research, especially biomedical research, like the one focusing on rare genetic diseases, whose cure depends on biobanks (Gymrek et al. 2013) and medical registries with aggregated clinical data (Kaye 2012; Mascalzoni, Paradiso, and Hansson 2014).

The threat to individual privacy and anonymity remarks the impact that data philanthropy can have on the development of democratic societies, as both rights are instrumental to this end. The lack of privacy and anonymity marks the difference between open democratic societies and totalitarianisms. Think of the value of being able to cast political vote anonymously or to access and share (political) information without having to reveal one's identity. In this sense, the risks that data philanthropy poses to privacy and anonymity concern also the democratic development of our societies, their power balance, the fairness of the distribution of resources (Gurstein 2011; McClean 2011; Donovan 2012).

Data philanthropy can spin these processes in different directions, because shared data can lead to the extraction of information, which in turn may hamper the practises on which democratic societies rely. As Floridi put it:

> "The more the better is not the only, nor always the best, rule of thumb. For the withdrawal of information can often make a positive and significant difference", (Floridi 2014, 189).

Even when not posing direct risks to anonymity and privacy, data philanthropy can still impair the fair distribution of resources as well as spurring unduly discriminations, such as for example classism, sexism, racism, and ageism.

As Kitchin put it:

> "[…] opening data does not mean an inherent process of democratisation. Indeed, open data can function as a tool of disciplinary power", (Kitchin 2014, 63).

The case of the digitalization of the land records in Karnataka, India[11] offers a good example of the impact that open access to data may have on societal equilibriums. This was an open data project promoted to disenfranchise the poor by allowing them to access the records about their land, which were previously restricted, and re-appropriate it. Nevertheless, the richer made the most of the available data and used them to obtain

[11] http://www.worldbank.org/en/topic/governance/brief/digitizing-land-records-in-karnataka-india

relevant information and, eventually, to acquire even more estate. The digitalization of the land records, hence, facilitated the transfer of wealth from poor to rich. This is not an uncommon result of open data processes (Kitchin 2014) and concerns both data generated by the public sector and those generated by the private sector (Johnson 2014).

Data philanthropy can hinder democratic processes also by facilitating unduly profiling which can then provide the means for unjust discrimination. This is an ethical problem that concerns big data in general, and that data philanthropy may contribute to exacerbating it by extending access to suitable data to third, malicious, parties.

Big data permits to identify groups of individual, e.g. 'the cat owners', 'the readers of a certain newspaper', 'the costumers of a certain kind of restaurant' and so on. Individuals who are part of these groups can then be targeted and discriminated unbeknownst to themselves or even to the data philanthropists. For these groups can be defined by simply aggregating and linking database or in response to specific queries. This shifts the attention on the need for regulating and overseeing data sharing and on the accountability for unforeseen consequences that may follow opening access to data (McClean 2011; Taddeo and Floridi 2015).

Policy solutions are being defined to regulate data philanthropy and address the ethical problems described in this section. For example, the UN Global Pulse initiative has identified possible ways to overcome the friction with individual rights. They envisage the creation of a data commons, where non-sensitive data can be shared after adequate anonymization and aggregation, and the establishing of a sentinel network, where companies can share more sensitive data behind firewalls.[12] While these may be two steps in the right direction, this approach is limited by its *ad hoc* nature, insofar as this overlooks the source of the problem, namely the moral nature of data philanthropy.

Data philanthropy can either foster social development, knowledge, and the flourishing of information societies or can help steering the design of current and future societies in the opposite direction. This is not to argue against data philanthropy. It is rather to emphasise that, although there is something morally desirable about it, data philanthropy is a moral ambiguous phenomenon. Its moral ambiguity is not tantamount to moral neutrality. In that data philanthropy is more likely to foster morally good outcomes, like societal and individual welfare, scientific progress, and better governance, than the

[12] http://www.unglobalpulse.org/blog/data-philanthropy-public-private-sector-data-sharing-global-resilience

opposite. Yet, in itself data philanthropy is not sufficient to ensure morally good results. Policies and regulations are necessary to this end.

However, the ones in place are limited by an *ad hoc* approach. For this reason, they can hardly offer a remedy, never a solution, to the ethical problems posed by data philanthropy. It is necessary to clarify the moral nature of data philanthropy to provide the groundwork for the definition of the necessary regulation to harness its potential and avoid that it may deliver quite opposite results to those envisaged by its advocates. This will be the task of the next two sections.

4. Infraethics and the moral nature of data philanthropy

The moral ambiguity of data philanthropy, on the one side, and its moral desirability, on the other, unveil the *infraethical* nature of this phenomenon. Infraethics is a neologism introduced in (Floridi 2012) to refer to

> "not-yet-ethical framework of implicit expectations, attitudes, and practices that can facilitate and promote moral decisions and actions" (Floridi 2012, 738).

According to the analysis proposed in (Floridi 2014), the information revolution has unveiled that moral behaviour is the result of both moral values and an ethical infrastructure able to foster them. Much in the same way in which societies require a socio-political infrastructure to function and prosper, human interactions require an ethical infrastructure able to support the flourishing of moral actions.

The elements constitutive of a given infraethics are not good in themselves, nor are they sufficient to determine morally good outcomes, but they are likely to facilitate morally good actions. Trust, respect, and loyalty offer good examples of infraethical principles. They are often described as moral principles, but they are better understood as elements of the infraethics of a given society, because they facilitate the achievement of the goal that the members of that society may have, irrespective of its moral value. Trust, respect, and loyalty, for example, are crucial for a happy marriage to prosper; at the same time, they are essential for mafia and other criminal organisations to grow and consolidate their power (Gambetta 1998).

The moral ambiguity of infraethics is resolved once it is combined with the *right* moral values. As Floridi stresses:

> "the best pipes may improve the flow but do not improve the quality of the water, and water of the highest quality is wasted if the pipes are rusty or leaky.

> […] because an infraethics is not morally good in itself, but it is what is most likely to yield moral goodness if properly designed and combined with the right moral values", (L. Floridi 2014, 193).

One can think of infraethical and ethical principles as agents of a multi-agent system (MAS) (Wooldridge 2009). MASs are distributed, dynamic, adaptive, and teleological. These features characterise also the interaction between infraethics and ethics and shed light on the identification of the right infraethical and the ethical principles for mature information societies. Let me explain.

A MAS is distributed insofar as it encompasses a number of agents, each performing a task necessary to the achievement of the system's overall goal. The latter is only accomplished if each agent perform its task and, even more importantly, if each agent is contributing the *right* action toward the achievement of the overall goal. The system is dynamic, insofar as it relies on the internal relations among its agents to function. In this case, infraethical agents need the ethical ones to deliver the MAS' goal, while ethical agents need the infraethical agents to achieve their goal with less effort. A MAS is adaptive because its agents can change their tasks, or the way they perform it, to adapt to the characteristics of the environment so that, should the environment change, the system would still be able to achieve its goal. Finally, MASs are teleological, as they are designed to achieve a specific goal and the interactions and actions of its agents are all devoted to it. In the case of our MAS, the set of infraethical and of ethical agents will be effective insofar as it changes to mirror the ethical values and the characteristics of our societies. The adaptive and teleological aspect of a MAS are crucial, for they ensure its ability to respond to the need of the environment and its resilience. Both this aspects need to be kept in mind while designing the right infraethics and ethics for information societies.

The infraethics of mature information societies encompasses, among others, trust (Taddeo 2010a; Taddeo 2010b; Turilli, Vaccaro, and Taddeo 2010), security (Taddeo 2013; Taddeo 2014), transparency (Turilli and Floridi 2009) and, as I argue, data philanthropy. The infraethical nature of data philanthropy becomes clear when considering its moral ambiguity and its potential to foster democratic processes, the advance of scientific knowledge, civic participation. The reader may recall the examples of the impact of data philanthropy on research and on the management emergencies provided in section 1.

Once the infraethical nature of data philanthropy becomes clear, its paradox is solved. For if data philanthropy is a not-yet moral phenomenon, the moral nature of the consequences that it may generate does not raise any problems, let alone contradictions. The issue now arises as to which are the right ethical principles with which data philanthropy should be combined to ensure morally good outcomes. This will be the topic of the next section.

5. The design of the right infraethics and ethics

In section 3 I identified two sets of moral problems that data philanthropy can engender, the distortion of democratic processes, as a consequence of unduly profiling and unjust discrimination, and the tension between data philanthropy and individual rights. These problems are the consequence of a dysfunctional combination of infraethics, specifically data philanthropy, and ethics, namely individual rights. As such, the solution to these problems requires reconsidering the ethical values shaping mature information societies and the way these can be combined with their infraethics.

Consider the moral problems that data philanthropy poses with respect to unjust discrimination. These arise because we lack the adequate ethical values to be combined with data philanthropy. This is not to say that unjust discrimination and unduly profiling based on big data do not pose a serious, substantial a problem. It is to remark that the ethical principles on which we have relied so far to address them are inadequate.

Individual rights, privacy in particular, have a central role in the debate on the ethical implications of big data and open data (Boyd and Crawford 2012; Kitchin 2012; Mittelstadt and Floridi 2015). However, while it is undeniable that big data and open data put individual privacy under a sharp devaluating pressure, it is also true that the problems posed by profiling and the subsequent discrimination do not arise because of such pressure.

Consider, for example, the case of online advertisements described in (Latanya Sweeney 2013). The study showed that searching for racial-related names commonly associated to Afro-American population in two major search engines generated ads suggestive of an arrest in up to 95% the cases. The discrimination occurring in this case rests on a form of profiling that does not breach individual privacy. In fact, the names used in the study were not the names of real persons, yet it violates the right on individuals belonging to the group of the Afro-American population. This follows from the very nature of data analytics and big data, whose goal is the identification of groups.

Nonetheless, even if the outcome does not breach individual privacy, it can still pose serious risks at the group level, showing that while privacy of individuals may not be breached, the one of the group certainly is (Floridi 2014; Taylor, Floridi, and van der Sloot Forthcoming). For this reason the right to *group privacy* is increasingly more often recognised as a crucial right to be defended in mature information societies.

> "[This] is a right held by a group as a group rather than by its members severally. It is the group, not its members, that is correctly identified as the right-holder […] Open Data is more likely to treat types (of customers, users, citizens, demographic population, etc.) rather than tokens (you, Alice, me…), and hence groups rather than individuals. But re-identifiable groups are *ipso facto* targetable groups" (Floridi 2014, 1–2).

Group privacy contributes to define the right combination of infraethics and ethics, which would enable data philanthropy to foster (and not to distort) democratic processes or, at the very least, to reduce the risk for unduly profiling and unjust discrimination. The case of group privacy highlights that the ethical issues that data philanthropy poses can only be solved by considering the interaction between infraethics (encompassing data philanthropy, transparency, oversight among others) and ethics, including group privacy and other rights, of information societies.

This is also true when considering the tension between data philanthropy and individual privacy. In this case, the dynamic between infraethics and ethics unveils that, not the right, but its interpretation is porous. More specifically, the way in which the right to privacy is usually fostered and respected proves to be inadequate to the design the right ethical framework for information societies. As stressed by Vayen and Tasioulas:

> "The change is not in the right itself, or on the duties that it generates but rather on the means that should be adopted to fulfil the duty", (Vayena and Tasioulas Forthcoming).

While individual privacy remain valid irrespective of the changes brought about by the information revolution, the way in which we fulfil it has changed radically and depends on the cultural, technological, and moral values shaping our societies, as well as from their infraethics. As such, the tension between the individual rights and data philanthropy will not be resolved when framed as a zero-sum game between two ethical values. It is the dynamic between infraethics and ethics that will be effective in solving this tension.

For while the individual privacy identifies a (crucial) ethical value of information societies, they way we fulfil it is largely constrained by their infraethics.

The right to privacy includes a claim of the right-holder toward duties of her counterpart (Hohfeld 2000; Taddeo 2014). This duty prescribes what the counterpart must (not) do in order to comply with the right of the right-holder. This part of the right varies in response to the changes of the context, of what it is feasible to deliver given the technological and scientific upheavals, as well as the cultural and societal feature of a given environment. Recalling the MAS described in section 4, these changes ensure the adaptability of the MAS and hence its resilience in delivering the right ethical framework for the development of open, pluralistic, and just societies over time, responding to the changes faced by the environment.

When considered within the dynamic of our MAS, the tension between individual privacy and data philanthropy described in section 3 shows to be operational, it is about the way we satisfy this right, and not ontological, for the two are not incompatible. Hence, while individual privacy remains a fundamental value of information societies, the possibilities of re-identification of data subjects pose an operational limit to the ability of the infraethical agents to facilitate the task of the ethical ones. A trade-off between the two agents will not leave the MAS in a better situation, in fact it may risk stalling it. The solution relies in considering how to use the rest of the agents of the MAS, both ethical and infraethical, to solve the tension. In this scenario, collaboration with infraethical agents of oversight and auditing of the impact of the shared data, for example, would offer a more effective solution.

6. Conclusion

Philanthropy has often been related to altruism and kindness (Prochaska 1990; Gorsky 1999) and, as such, it has been described as morally good action, which

> "extends through a wide range of social behaviour - from the informal expression of kindness to a dependent at one end, to legislative campaigning for social justice at the other" (Kidd 1996, 181).

At the same time, however, its impact on societal and power dynamics makes the moral assessment of this phenomenon less straightforward. Defining the moral nature of data philanthropy is perhaps even more problematic, for this poses serious ethical problems

and concrete risks to the development of democratic information societies, as well as to the protection of individual rights.

I argue that data philanthropy is both morally ambiguous and desirable and that these two aspects unveil its infraethical nature. Data philanthropy can only maintain its promise to foster morally good outcomes - e.g. advancing scientific knowledge, improving policy-making processes, and emergency-facing procedures - when combined with the *right* ethical principles. To recall the analogy introduced in section 4, data philanthropy delivers its promise when is part of the right MAS, namely the one able to mirror the changes faced by information societies and designed to foster the development of open, pluralistic, and just dynamic within them. It is the dynamics between infraethics and ethics that permits to solve the ethical problems posed by data philanthropy.

However, such a solution require an adequate design of the ethical framework, which has to be resilient enough to be able to account for the raising of new moral values as well as for the conceptual and practical changes brought about by the information revolution. In this respect, the analysis of data philanthropy contributes to shed light on the nature of information societies and their dynamics and on the design of the ethical framework to ensure that these can harness (and not encroach) the value of data, while prospering as open, pluralistic, and just societies.

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