Artificial intelligence and human rights: Between law and ethics

Giovanni Sartor

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Abstract

The ethics and law of AI address the same domain, namely, the present and future impacts of AI on individuals, society, and the environment. Both are meant to provide normative guidance, proposing rules and values on which basis to govern human action and determine the constrains, structures and functions of AI-enabled socio-technical systems. This article examines the way in which AI is addressed by ethical and legal rules, principles and arguments. It considers the extent to which the demands of law and ethics may pull in different directions or rather overlap, and examines how they can be coordinated, while remaining in a productive dialectical tension. In particular, it argues that human/fundamental rights and social values are central to both ethics and law. Even though they can be framed in different ways, they can provide a useful normative reference for linking ethics and law in addressing the normative issues arising in connection with AI.

1. Introduction

Artificial Intelligence (AI) systems are populating the human and social world in multiple ways: industrial robots in factories, service robots in houses and healthcare facilities, autonomous vehicles and unmanned aircraft in transportation, autonomous electronic agents in e-commerce and finance, autonomous weapons in the military, intelligent communicating devices embedded in every environment. AI has become a most powerful driver of social transformation: it is changing the economy, affecting politics and reshaping citizens' lives and interactions; it increases opportunities and risks in ways that are of the greatest social and legal importance.

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The present and prospective impacts of AI on individuals and society are raising both great expectations and serious worries. On the one hand, AI may enhance human abilities; improve security and efficiency; enable the universal provision of knowledge and skills; support scientific research; and contribute to better education, health care, and environmental protection. On the other hand, AI may increase opportunities for control, manipulation, and discrimination; disrupt social interactions; and expose humans to harm resulting from technological failures or disregard for individual rights and social values.

In general, thanks to AI, human-machine interaction is changing and will change even more in the near future. So far, machines have been given menial-routine tasks that could be programmed in advance in detail—all activities involving discretion, choice and creation being left to humans. Thanks to AI, an increasing range of the latter activities can also be entrusted to machines. This opens New opportunities to use intelligent machines for the pursuit of human values, in such a way as to maintain and enhance human capacities and initiative.[1] It is also exposes us to the risk that intelligent machines should be used in ways that detract from the realisation of human values, curtailing human freedoms and hampering the productive deployment of human capacities.

A number of concrete ethical and legal issues have already emerged in connection with AI in several domains, like civil liability, insurance, data protection, safety, contracts, and crime. Such issues gain greater significance as more and more intelligent systems leave the controlled and limited environments of laboratories and factories and share the same physical and virtual spaces with humans (Internet services, roads, skies, stock exchanges, other online and offline markets, and so on).

The normative issues that arise from the present and future deployment of AI can be addressed from an ethical perspective as well as from a legal one. The ethics and law of AI address the same domain, namely, the present and future impacts of AI on individuals, society, and the environment. Both consider the extent to which AI may enhance or constrain individual and social initiatives and contribute to or detract from valuable individual and social interests. Both are meant to provide normative guidance, proposing rules and values on which basis to govern human action and determine the constrains, structures and functions of AI-enabled socio-technical systems. This raises the issue of how to deal with the competing demands of ethics and law. We need to understand how such demands may pull in different directions or overlap and how they can be coordinated, while remaining in a productive dialectical tension.

In this article, I proceed from the recognition that human/fundamental rights and social values are central to both ethics and law, in which domains they may be framed differently. On this basis, I will argue that these rights and values can provide a useful normative reference for linking ethics and law in addressing the normative issues arising in connection with AI.

2. Ethics of AI

Ethical discourses on AI aim to point out morally correct ways to deploy AI: what uses of it are good, indifferent, or bad; and which ways of engaging with AI are commendable, optional, or

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1. As anticipated by J.C.R. Licklider, 'Man-computer symbiosis', 1 *IRE Transactions on Human Factors in Electronics* (1960), p. 4–11.

reprehensible.[2] As ethical discourses adopt a 'common point of view' — they aim to convince everybody, or at least all those who are included in the audience being addressed[3]— such discourses should in principle take into account all relevant individual, social, and environmental interests and values. Usually, ethical discourses combine the description of current ethical practices (so-called positive morality) with normative arguments aimed at supporting currently endorsed practices or otherwise criticizing such practices from the standpoint of a conception presented as superior, more rational, or supported by a stronger justification (this is the task of so-called 'critical morality').[4]

The fact that a normative content is ethically justified does not entail (nor exclude) that it is currently legally binding, meaning that it is to be viewed as a legal command, to be imposed through force on those who would not comply of their own accord. For instance, certain AI-powered targeted advertisements may be unethical, but not sufficiently aggressive and misleading to violate consumer protection law and be subject to the corresponding penalties. To determine whether an unethical behaviour also violates a legal norm, we have to consult the legal system at issue. Moreover, the fact that a recommended course of conduct is ethically justified does not always entail that this guidance should ideally become the content of legal norm. If every piece of ethical guidance — even if limited to guidance concerning actions that affect others[5]— were to be translated into a coercible legal command, the outcome would be persistent extreme interference in individual autonomy, not to speak of the conflicts that the enforcement of many ethical imperatives would engender, given the widespread disagreements on ethical matters.

In general, whether an ethical imperative should ideally become legally binding or whether compliance should be left to the goodwill of the individuals concerned (according to their moral convictions, or under the pressure of social opinion and social norms) pertains to what is called 'political ethics', or the ethics governing the exercise of political power.[6] For instance, even if certain forms of pressure on consumers through targeted messages are clearly unethical — being designed to enable suppliers and providers to profit at the expense of users — it is an open issue whether such forms of advertising should be prohibited, considering the uncertainties and costs of enforcement. On the same ground we can reject the view that every unethical use of language — messages that are aggressive or uncivil — should be legally punished. A threshold has to be crossed for such expressions to be legally proscribed as inadmissible hate speech. A further issue is whether third parties have an ethical responsibility to take action to prevent the publication of unethical or unlawful messages —possibly

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2. I use ethics and morality here as synonymous, as concerning what kinds of uses of AI should be proscribed or rather encouraged given their social impacts, as this is the way in which such terms are used in the current debate on the impacts of AI. For the distinction between universal moral claims and the individual or collective criteria for a good life (ethics), see J. Habermas, *Between Facts and Norms* (MIT Press, 1999), p. 94.

3. See M. Blackburn, *Ethics: A Very Short Introduction* (Oxford University Press, 2001), p. 111, who refers to D. Hume, *An Enquiry Concerning the Principles of Moral* (Hackett, 1983).

4. H.L.A. Hart, *Law, Liberty and Morality* (Stanford University Press, 1963), ch. 3; D.N. MacCormick, *H. L. A. Hart* (Arnold, 1981), ch. 4.

5. According to the harm principle, advanced by J. S. Mill, *On Liberty* (Penguin, [1859] 1974), ch. 4.

6. See D.F. Thompson, 'Political Ethics', in H. Lafollette (ed.), *International Encyclopedia of Ethics* (Wiley-Blackwell, 2013).

deploying AI-based filtering systems— and whether such third parties should be held legally liable if they fail to so act.[7]

With these broad considerations in the background, let us now address the merits of discussions on the ethics for AI. Ethical inquiries can provide high-level principles as well as lower-level recommendations. As an example of a high-level synthesis of an ethical framework for AI, we can refer to the AI4People document,[8] which describes the opportunities provided by AI and the corresponding risks as follows: enabling human self-realisation, without devaluing human abilities; enhancing human agency, without removing human responsibility; and cultivating social cohesion, without eroding human self-determination.

A more detailed, but still highly abstract set of recommendations is provided by the High-Level Expert Group on Artificial Intelligence, set up by the European Commission. The Expert Group recently published a set of ethics guidelines for trustworthy AI, stating that legal, ethical, and robust AI should be grounded in fundamental rights and reflect the following four ethical principles.[9]

– Respect for human autonomy: humans interacting with AI must be able to keep full and effective self-determination over themselves. AI should not unjustifiably subordinate, coerce, deceive, manipulate, condition, or herd humans, but should rather be designed to augment, complement, and empower human, cognitive, social, and cultural skills.
– Prevention of harm: the protection of human dignity as well as mental and physical integrity should be ensured. Under this principle, AI systems and the environments in which they operate must be safe and secure, they should neither cause nor exacerbate harm or otherwise adversely affect human beings.
– Fairness, both substantive and procedural. The substantive fairness means a commitment to ensuring equal and just distribution of both benefits and costs, and ensuring that individuals and groups are free from unfair bias, discrimination, and stigmatisation. Procedural fairness means that we should have the ability to contest and seek effective redress against decisions made by AI systems and by the humans operating them.
– Explicability: algorithmic processes need to be transparent, the capabilities and purposes of AI systems openly communicated, and decisions explainable to those affected, both directly and indirectly.

According to the High-Level Expert Group, in order to implement and achieve trustworthy AI, seven requirements need to be met, building on the principles just listed:

– human agency and oversight, including fundamental rights;
– technical robustness and safety, including resilience to attack and security, fall-back plans and general safety, accuracy, reliability, and reproducibility;

7. For a recent account, see G. Sartor and A. Loreggia, 'The impact of algorithms for online content filtering or moderation - Upload filters', Study requested by the JURI Committee of the European Parliament (2020), https://www.europarl.europa.eu/RegData/etudes/STUD/2020/657101/IPOL_STU(2020)657101_EN.pdf.
8. L. Floridi et al., 'Ai4people—an ethical framework for a good AI society: Opportunities, risks, principles, and recommendations', *Minds and Machines* (2018), p. 689–707.
9. High-Level Expert Group on Artificial Intelligence, *Ethics guidelines for trustworthy AI* (2019), file:///C:/Users/c3261001/AppData/Local/Temp/AIHLEG_EthicsGuidelinesforTrustworthyAI-ENpdf.pdf.

- privacy and data governance, including respect for privacy, the quality and integrity of data, and access to data;
- transparency, including traceability, explainability, and communication;
- diversity, non-discrimination, and fairness, including the avoidance of unfair bias, accessibility and universal design, and stakeholder participation;
- societal and environmental wellbeing, including sustainability and environmental friendliness, social impact, society and democracy;
- accountability, including auditability, minimisation, and reporting of negative impacts, trade-offs, and redress.

Implementation of these requirements should occur throughout an AI system's entire lifecycle as required by specific applications.

A recent comparative analysis of documents on the ethics of AI has noted a global convergence around the values of transparency, non-maleficence, responsibility, and privacy, while dignity, solidarity and responsibility are less often mentioned.[10] However, substantial differences exists on how to balance competing requirements, as when some of the values just mentioned are negatively affected by certain users of AI, but at the same time economic, administrative, political, or military advantages are obtained. Consider, for instance, the use of AI methods for identifying and tracking people infected with a contagious disease.

The discussion on the ethics of AI has also addressed more specific issues such as the behaviour of digital service providers. It may be argued, for instance, that digital service providers should take responsibility for the way in which interactions taking place on their platforms may cause harm to third parties or to society. Since providers enable the uploading of online content and have the ability to moderate content and interactions, they have an ethical duty to take measures to prevent harm and to contribute to the quality of information that is provided on their platforms.[11] Compliance with this duty entails using the most effective measures, which may involve the use of AI for analysing and screening content.

Consequently, it may be argued that platform providers have an ethical duty to use AI to identify and counter harmful or abusive content and flag fake news and rumours as well as an ethical prohibition from using AI to send 'additive' messages to their users, to attract and retain them profiting off their weaknesses and biases. It may also be claimed that they have a general ethical duty to limit AI's misuse by third parties — a duty, for instance, to address cases in which AI systems are used to induce consumers to make choices they may regret (for example, bad loans, gambling) or to exercise undue influence on social processes (for example, to manipulate public opinion and influence elections).

When examining specific issues, we must discern ethical duties from legal obligations. For instance, we need to distinguish the extent to which host providers have an ethical duty to address hate speech from the extent to which the law does or should impose on them an obligation to do so. Considering that the imposition of a broad obligation to counter hate speech, possibly coupled with heavy penalties for non-compliance, may have unwanted side effects — on other rights and values, such as freedom of speech — it may be preferable to restrict the legally sanctioned obligations to

10. A. Jobin, M. Ienca and E. Vayena, 'Artificial Intelligence: The global landscape of ethics guidelines', 1 *Nature Machine Intelligence* (2019), p. 389–399.
11. M. Taddeo and L. Floridi, 'New civic responsibilities for online service providers', in M. Taddeo and L. Floridi (eds.), *The responsibilities of online service providers* (Springer, 2017), p. 1-10.

counter hate speech to cases in which expressions of hatred are extreme, univocal in their direction, and more likely to cause serious harm. Consequently, it may be argued that there is indeed an *ethical* obligation for providers to use effective means to counter all expressions hate speech — including the use of AI tools to identify such expressions — but that the *legal* obligation to do so should be much more restricted.

Following this idea, and mindful of the distinction between ethics and law, it may be argued that it makes sense for public authorities to engage in dialogue with providers, to promote appropriate measures by the latter. This could be achieved, for example, by recommending that providers act to prevent hate speech, to this end possibly using AI-based filters, and by stating such recommendations be stated through soft law instrument —such as the 2016 EU Code of Conduct on Countering Illegal Speech Online— rather than through binding legal rules.

3. Laws governing AI

Ethical discourse on AI, as described in the previous section, needs to be distinguished from legal discourse. The distinction is clearer relative to legal discourses concerning the content, interpretation, and application of existing law. Such discourses focus on authoritative sources, to be coercively enforced by the competent authorities. They are aimed at determining the content and implications of such sources, offering interpretations of them, and justifying or criticising decisions and actions accordingly. Legal analysis of existing laws is supposed to provide guidance to citizens and authorities on how to comply with and apply legal norms in pursuit of legal values. Doctrinal discourses focusing on existing sources of law may propose new interpretations, constructions, or adaptations of them, striving to make them more consonant with legal principles and values.

Ethical considerations — based on the positive morality prevailing in the society governed by the legal system at issue, but also on critical developments/revisions of it — may influence legal interpretation, as long as this happens preserving the connection to legal sources and to accepted modes of interpretation (though cases of extreme injustice or preposterousness arise in the law may have to be dealt with without preserving that connection).[12] A less constrained appeal to ethics can take place in discourses focusing on legislative innovation, which argue for changes in legal sources, to be effected by competent authorities in order to better implement certain political values, possibly linked to values inherent in the legal system.

With regard to the legal regulation of AI, it must be specified that the use of AI does not take place in a legal vacuum: laws that were not conceived with regard to AI can be applied to AI, in most cases providing adequate solutions. Given the huge breath of AI's impact on citizens' individual and social lives, AI falls under the scope of multiple sector-specific legal regimes. These regimes include especially, though not exclusively, data protection law, consumer protection law, and competition law. As the European Data Protection Supervisor (EDPS) has observed in Opinion 8/18 on the legislative package 'A New Deal for Consumers', there is synergy between the three regimes. Consumer and data protection law share the common goals of correcting

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12. I cannot address here the many theories on the separation versus the necessary or contingent link between law and ethics, and on the role of ethical arguments in legal interpretation. In the huge literature on the matter, see R. Alexy, *The argument from injustice: A reply to legal positivism* (Oxford University Press, 2003); J. Raz, *The authority of law* (Clarendon Press, 1979).

imbalances of informational and market power, and, along with competition law, they contribute to ensuring that people are treated fairly.[13]

Other domains of the law are also involved in AI: labour law relative to the new AI-enabled forms of control over workers; administrative law relative to the opportunities and risks in using AI to support administrative decision-making; civil liability law relative to harm caused by AI-driven systems and machines; contract law relative to the use of AI in preparing, executing, and performing agreements; laws on political propaganda and elections relative to the use of AI in political campaigns; military law on the use of AI in armed conflicts and so on.

Even though, as just noted, AI enters into a legally regulated space, its pervasive and sometimes disruptive social impacts are not always met with adequate legal responses. Thus, AI-related issues may prompt proposals for legal change. Such proposals typically combine identification of what is inadequate in current laws and legal practices with proposals for change. Change in the law may be argued for through ethical considerations (possibly linking ethics with legal principles) or by appealing to social or political goals that are shared by swaths of the public and by political actors. For instance, it may be that the law should prohibit the use of AI for face recognition in public spaces, or that an open economy requires that the law allows broader use of personal data for machine-learning purposes, or that rules on civil liability need to be modified to allocate liabilities for harm causes by robots, or that traffic laws need to be changed to enable the use of autonomous vehicles and so on.

The suggested changes in the law may consist in novel ways of interpreting or applyin existing laws or they may instead appeal to the enactment of new law. In all such cases, as noted, we need to distinguish three issues: (1) the ethical issue of how AI should be used to comply with ethical norms and preserve and promote ethical values, (2) the legal issue of how the law currently regulates AI, and (3) the legal policy issue — which may also include aspects of political ethics — of how AI should be regulated by the law. When the proposed change consists in reshaping legal interpretation without changing the legal source themselves, such a change may be classified under (2) or (3) depending on the legal theory being applied, that is, on whether the approach adopted is exclusivist, taking (critical) morality to be external to the law, or inclusivist, where morality contributes to determining the content of the law.

4. Legal rights and values in the regulation of AI

The analysis of legal discourses on AI cannot neglect the ways in which AI interacts with the most abstract legal norms, those that specify fundamental rights and values, within the legal system's written or unwritten constitution. Focusing on EU law, we may observe that AI can have an impact on the effective enjoyment of many of the fundamental rights and social values in the EU Charter of Fundamental Rights and in the EU treaties.[14]

At the forefront are the rights to privacy and data protection (Articles 7 and 8 of the Charter), but other rights are also at stake: dignity (article 1); the right to liberty and security, freedom of

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13. 'Opinion/2018 on the legislative package "A New Deal for Consumers"', *European Data Protection Supervisor* (2018), https://edps.europa.eu/sites/edp/files/publication/18-10-05_opinion_consumer_law_en.pdf.

14. For a review of the impact of ICTs on rights and values, see G. Sartor, 'Human rights and information technologies', in R. Brownsword, E. Scotford, and K. Yeung (eds.), *The Oxford Handbook on the Law and Regulation of Technology* (Oxford University Press, 2017), p. 424–450; P. de Hert and S. Gutwirth, 'Data protection in the case law of Strasbourg and Luxemburg' in S. Gutwirth et al. (eds.), *Reinventing Data Protection?* (Springer, 2009), p. 3–44.

thought, conscience, and religion (Article 10); freedom of expression and information (Article 11); freedom of assembly and association (Article 12); freedom of the arts and sciences (Article 13); the right to education (Article 14); the freedom to choose an occupation and the right to engage in work (Article 15); the right to equality before the law (Article 20); the right to non-discrimination (Article 21); equality between men and women (Article 23); the rights of the child (Article 24); the right to fair and just working conditions (Article 31); the right to health care (Article 35); the right to access services of general economic interest (Article 36); consumer rights (Article 38); the right to good administration (Article 41); and the right to an effective remedy and to a fair trial (Article 47). Also at stake, besides individual rights, are legally endorsed social values, such as democracy, equality, solidarity, pluralism, and tolerance (Article 2 TEU), and peace, economic and social progress, a competitive economy, and diversity (Article 3).

To a large extent, the fundamental rights in the EU Charter overlap with international human rights set forth in the vast number of international documents, among which a key role is played by the by 1948 Universal Declaration of Human Rights, the 1950 the European Convention on Human Rights, the 1966 International Covenant on Civil and Political Rights and the 1966 International Covenant on Economic, Social and Cultural Rights. Such rights also overlap with the rights included in the constitutions of the Member States' national constitutions, as well as in the constitutions of many third countries. The same also applies to the EU's previously mentioned values, many of which are invoked in international and national documents.

AI also falls within the purview of rights that do not have a constitutional basis (while being linked to constitutional principles). Consider, for instance, rights to compensation, according to tort law, for as harms resulting from AI; consumer protection rights relative to misleading of aggressive AI-based advertising; specific procedural or substantive rights established by antidiscrimination laws against discriminatory automated decision-making; data protection rights to obtain information, access data, terminate unlawful processing, with regard to AI-based systems; labour law rights against surveillance, undue pressure, or discrimination as applied to AI-empowered controls and decisions concerning workers, and so on.

5. The concept of a right

The term 'right' is commonly used in ethical contexts (both general morality and professional ethics), as well as in legal contexts (international, transnational, or domestic law). An additional source of complexity lies in the fact that the term is used in different ways (for example, as referring to enforceable claims or also to non-enforceable ones).

As it is well known, two main theoretical approaches to rights exist: the interest theory and the will theory.[15] According to the first approach, which goes back to renowned 19th-century authors such as Jeremy Bentham and Rudolf von Jhering, a right consists in a protected interest, or in the protection of a person's interests by means of a duty imposed on other persons for the sake of the first person's interest. According to the second approach, championed by leading legal theorists such as Hans Kelsen and H. L. A. Hart, a right consists in legal powers over the obligations of

15. For a discussion, see M. Kramer, *A debate over rights: Philosophical enquiries* (Oxford University Press, 1998); G. Sartor, 'Fundamental legal concepts: A formal and teleological characterization', 14 *Artificial Intelligence and Law* (2006), p. 101–142.

others, and, particularly, in the capacity to extinguish such obligations or to have them legally enforced.[16]

I cannot here discuss the comparative merit of the two approaches, which is still today controversial issue in legal theory. I will adopt a version of the interest theory, which is less legally oriented than the will theory, and which provides for a more broadly scoped analysis of rights across different domains. I will, however, consider an extension of the interest approach that also takes legal powers into account.

On the interest theory, in order for persons to have a right, it is necessary and sufficient that certain other persons have a duty that is directed at the benefit of the first person, namely that is specifically intended to benefit him or her.[17] An important issue in the benefit theory pertains to the identification of a duty's beneficiaries, namely, of what persons[18] are to be considered the intended beneficiaries of that duty, among the various people who can draw some advantage from its fulfilment. According to Joseph Raz, a leading supporter of the interest theory, a person has a right if, other things being equal, an aspect of that person's well-being (his or her interest) is a sufficient reason for holding some other person(s) to be under a duty.[19]

Thus, on this view, a duty gives rise to a person's right when the duty is justified by that person's interest. Justification may be related to moral considerations or to the purposes of the provision establishing the duty (the purpose pursued by the authority that issues the provision or otherwise the purpose attributed to the law that includes that provision). For identifying right-holders, a complementary perspective is given by focusing on violations of obligations. Following an idea originally expressed by Jeremy Bentham, we could say that an obligation generates an individual right when a certain violation of that obligation necessarily entails (what is typically viewed as) a detriment to an individual, that is, when a certain detriment of that individual is sufficient for a violation of the obligation.[20]

Let us try to apply both perspectives to face recognition. We might say that a person has an interest-right not to be subject to face recognition in open spaces if (a) the infringement on that person's privacy consisting in her automated recognition while in an open space justifies the prohibition on carrying out face recognition (the first perspective) or (b) this interference is sufficient to determine a violation of the duty not to use facial recognition (the second perspective).

Similarly, we can say that a person has a (moral or legal) right not to be discriminated against based on a health condition subsequent to automated decision-making if the detriment consisting in being discriminated against in this way is (a) what justifies this prohibition on discrimination based on health condition or (b) what is sufficient to trigger a violation of the same prohibition.

Finally, assume that AI provides the most efficacious and cost-effective way to address a serious illness (for example, to detect a kind of cancer early on), and that a person has a right to be provided with adequate care by a national health service or private insurance. In such a case, the

16. H. Kelsen, *The Pure Theory of Law* (University of California Press, 1967); H.L.R. Hart, *Essays on Bentham* (Clarendon Press, 1982).
17. W.N. Hohfeld, 'Some fundamental legal conceptions as applied in judicial reasoning', 23 *Yale Law Journal* (1913), p. 16–59.
18. Different views exist on whether only human beings and collective bodies made up of humans are capable of having rights or whether this capacity can be extended to animals, and even to artificial or natural entities (robots, monuments, ecosystems, and so on). For our purposes however, we can just focus on human individuals.
19. J. Raz, *The morality of freedom* (Clarendon Press, 1986), p. 166.
20. M. Kramer, 'Refining the interest theory of rights', 55 *American Journal of Jurisprudence* (2010), p. 31–40.

person can be said to have a right to have AI deployed to satisfy (not to infringe on) his or her interest in having a good health. As these examples show, in different contexts it may be claimed that certain people have a right (an interest-right) to have certain uses of AI either withheld or introduced.

On the other hand, general obligations to deliver AI applications that are resilient, technologically robust, or environmentally friendly do not seem to give rise to rights for specific individuals, since they are aimed at collective interests, and may indeed be violated even in cases in which no individual is specifically affected. Even though we can in many contexts clearly distinguish between obligations that generate individual rights and obligations that do not generate such rights, it is important to remark that there is a connection between individual rights and social goals. On the one hand, a high aggregate satisfaction of individual rights can be viewed as valuable goal, a social state of affairs that is to be aimed at: while it is not possible to prevent all violations of a right, such as privacy or dignity, infringement should be minimised so that more people can enjoy these rights to the greatest extent. On the other hand, many individuals can benefit when a social goal — such as aggregated welfare, security, or technological robustness — is achieved.

The analysis of rights we so far offered applies to the so-called claim-rights, namely, those rights that are correlative to obligations. The concept of a right can, however, also be extended to cover power-rights, namely, in cases in which a person has a legal power (and other persons are correspondingly subject to that power) for the sake of the first person's interest (or also in the interest of a third party). The person in whose interest the power is granted (usually the person or persons who can exercise the power) would be the holder of the power-right. Consider, for instance, the legal power to request the judicial enforcement a legal obligation, such as the obligation not to discriminate against a person (using an AI application). Consider also the legal (or moral) power to consent to the use of AI to process one's personal data, when consent is the only applicable legal (or moral) basis that can make the processing lawful (morally permissible) under the given circumstances.

6. Kinds of rights

Since rights, as introduced above, are the other face of obligations directed toward (the benefit of) individuals, every such obligation is in principle correlated with a different right. Such rights may have different sources and different counterparts. The distinction between morally directed duties and legally directed duties gives rise to the distinction between moral and legal rights. Similar considerations also apply to power-rights.

Ethical obligations can either concern everybody or only apply to persons who act in a specific capacity, as in professional ethics. Consider, for instance, the ethical duties that apply to developers of AI applications or to the users of such applications (for example, health care or legal professionals using AI) when they affect third parties.[21] In both cases, the grounds for such obligations consist in moral considerations, in the context of shared attitudes and practices. These obligations, when directed at the benefit of particular persons or groups, generate corresponding rights. Thus, we can say, for example, that everybody has an ethical right that AI applications not be used to

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21. See U. Gasser and C. Schmitt, 'The role of professional norms in the governance of artificial intelligence', in M.D. Dubber, F. Pasquale and S. Das (eds.), *The Oxford handbook of ethics of AI* (Oxford University Press, 2020), p. 140–159.

spread targeted abusive information against him or her (independently of whether the abuse can also be qualified as a violation of data protection or as defamation under national law).

Legal obligations are based on legal considerations, and in particular on sources of law, in the contest of specific legal systems. Depending on the legal system to which the direct obligation giving rise to a right belongs, we can distinguish between rights pertaining to international law, to transnational legal systems (such as the EU), or to domestic legal systems. Correspondingly, the obligations corresponding to such rights may take a different personal scope: they may involve only or mainly states and other institutions (as in the case of international law) or also individuals; they may produce effects within the territory of a jurisdiction, or also (extraterritoriality) outside of it.

Just to illustrate how multiple obligations and rights overlap, consider the use of AI in the context of online information and educational resources. Enabling and supporting access to such resources can viewed as a valuable social goal, to which government and other institutions have a moral duty to contribute, including through the use of AI. Governments have also a moral duty not to restrict access to online information without adequate justification, for example, by using AI to filter out unwanted politically opinions, a duty whose violation would infringe individual moral rights to freedom of expression and access to information. Governments also have legal duties, based on international human rights law, not to interfere with people's online freedoms of expression and information, which would be violated by using AI-based filtering systems for the purpose of censorship. Finally, governments may have obligations established by municipal constitutional or statutory law that prohibit such encroachments.

It may be argued that individuals also have an ethical duty to refrain from (using AI systems for) polluting or vandalising online information, by generating and spreading spam, purveying fake or misleading information, or taking down or corrupting existing content. This ethical duty is directed at the community of online users, rather than at the benefit of specific individuals. However, if somebody were specifically harmed by such behaviour, it could be argued that an ethical individual right has been violated, namely, the right correlated with the ethical obligation to take due care to prevent unjustified harm to others. Similarly, it could be claimed that host providers have an ethical duty toward their individual users not to impede online freedom of expression in the absence of an adequate justification (pertaining to the unlawfulness or harmfulness of user-generated content or simply to its unsuitableness) even when this is not thier legal duty, according to the applicable legal system.

Finally, we could say that certain individuals, or public and private institutions, —e.g., journalists, profit and non-profit organisations involved in creating or distributing online resources, and search engines— according to their mission, also have a positive ethical duty to contribute to making information better and more accessible, even in those cases in which failure to comply with such a duty would not amount to a violation of moral or legal rights of specific individuals.

7. Human rights and AI

The moral and legal rights and the corresponding duties concerning the use of AI can be grouped in multiple ways: in relation to their source, to the right-holders, or to the duty-bound counterparts. Often, however, we just name a protected interest to encompass a whole bundle of rights that — at different levels and with different sources and contours — pertain to that interest. So when speaking of a person's right to privacy without further qualifications, we may bundle her ethical right to privacy (corresponding to general morality or to professional ethical obligations), her right

to privacy under international human-rights law (corresponding the state obligations arising from international human rights charters), her right to privacy under the European Convention on Human Rights (corresponding to the obligations of the Convention's signatories), her right to privacy under the EU Charter of Fundamental Rights, her multiple privacy rights corresponding to the controller's obligations under the General Data Protection Regulation (such as the prohibition on processing her personal data without a legal basis and the obligation to provide information to data subjects).[22]

The connection between such a bundle of rights is owed to their common purpose consisting in the protection of a certain interest (or a set of overlapping interests) of the right holders, though such rights may diverge in what to this end they require, from whom, to what extent. The connection between different rights, moral and legal ones, pertaining to the same interests is particularly significant with regard to human and fundamental rights, and it contributes to explaining the significance of human rights for politics and law: human/fundamental rights tend to bridge law and morality, since they concern important human interests whose protection may be the object of overlapping moral and legal duties, based on overlapping legal and ethical rationales.

As Amartya Sen has argued,[23] human rights are primarily to be considered as ethical demands. They concern freedoms broadly understood, that is, as opportunities for individuals. Such opportunities include both negative liberties — which mainly require non-interference from governments and protection from interference by third parties (as in the case of freedom of movement or freedom of expression) — and positive liberties, which require the active provision of resources (as in the case of social rights, for example, rights to education or health). Following Sen's account, some 'threshold conditions' are needed for an opportunity to be considered an ethical human right: the opportunity must be of special importance to the individual concerned, and its realisation must be socially influenceable, which means that the opportunity must be realisable through social means. Following this idea, human rights as ethical demands give rise to ethical obligations for individuals and groups, namely, the obligation not to interfere in the realisation of such rights, and also to contribute to their realisation.

Ethical human rights give rise to the ethical requirement — pertaining to political morality — that states act for the legal implementation of ethical human rights relative to those aspects of such rights that can be better implemented though state action, and in particular through coercive measures. However, according to Sen, such rights should not be 'juridically incarcerated', since ethical human rights may go beyond what is required by legally binding documents, and they may also include demands that should not be coercively enforced though the law, as this would be too costly, too obtrusive, and in some cases even unethical.

Even though a clear distinction must be drawn between ethics and law, a large overlap exists between ethical human rights, international legal human rights, and fundamental rights recognised by municipal legal systems. The overlap is most apparent when rights, both moral and legal ones, are viewed as principles, namely as open goals, pertaining to the realisation of individuals' benefits (opportunities), whose achievement is to be maximised, within the constraint of the available

22. 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, [2016] OJ L 119/1.

23. A. Sen, 'Elements of a theory of human rights', 32 *Philosophy and Public Affairs* (2004), p. 315–56.

material resources and normative requirement.[24] As we noted above, rights are often competing with other rights and values, in the sense that the higher realisation of a right may entail a lower realisation of other rights or social value, so that a trade-off may be needed, according to proportionality (Article 52 EU Charter). Different solutions to conflicts of rights and values may be provided in different moral and legal contexts, and they may be addressed through political choices, or through judicial determinations. However, divergences in the assessment of the importance and stringency of the concerned individual and collective interests, are compatible with the shared recognition of each of them.

The need to balance rights and duties relative to the deployment of AI applications may emerge within both ethics and law. For instance, a tension may exist between individual privacy and public health when AI is deployed to collect and process personal data to detect cases of contagious diseases. Similarly, citizens' privacy and freedom are put at risk when vast sets of data are processed for purposes pertaining to national security or the prevention of crime. Parallel issues may emerge in the private sector, for instance, in connection with the use of AI in domains such job recruitment or lending, where AI systems take decisions that are unfairly prejudicial to the prospects of certain individuals and groups. Similarly, a tension may exist between AI-driven increases in economic efficiency and negative impacts on workers' and consumer's autonomy and equal treatment.

It must be considered, however, that in many cases the tension between the deployment of AI and individual rights (and social values) can be resolved, or at least strongly mitigated, by adopting appropriate socio-technical arrangements. Such arrangements — for example taking privacy-enhancing measures, such as data anonymisation or pseudonymisation; pre-empting unfair or hidden pressures influencing people's choices; ensuring that citizens, and particularly workers, are not subject to pervasive surveillance and micro-control; providing a high degree of transparency — may enable the beneficial deployment of AI while averting negative side effects.

8. Conclusion

In conclusion, both ethical and legal perspectives are legitimate, and indeed useful, in addressing normative issues relating to the development and deployment of AI technologies, but they need to be distinguished and used in complementary fashion.

As noted above, ethical rights and values may be framed in different ways by different individuals, groups, and cultures. On the other hand, legal rights, including human/fundamental rights are based on sources of law and on institutional enforcement, so that can be framed differently within different legal system, at the international or at the municipal level. Moreover, within each legal system disagreements may exist between experts and judges as to the content and implications of such rights. Both in ethics and in law, however, disagreement, however, often concerns the relative importance of, and hence the assessment of, conflicts between different individual rights or social values (for example, privacy vs. freedom of speech, or privacy vs. security) or the definition of their contours, rather than the recognition of such principles as valuable normative standards.

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24. As argued by R. Alexy, *A theory of constitutional rights* (Oxford University Press, 2002) and A. Barak, *Proportionality* (Cambridge University Press, 2012). For a partially formal approach, see also G. Sartor, 'The logic of proportionality: Reasoning with non-numerical magnitudes', 14 *German Law Journal* (2013), p. 1419–1457. On whether fundamental rights have a core or "essence" that cannot be traded-off, see M. Brkan, 'The concept of essence of fundamental rights in the EU legal order: Peeling the onion to its core', 14 *European Constitutional Law Review* (2018), p. 332–368.

These general considerations apply to any ethical or legal rights that are currently affected or may be prospectively be affected by AI, from individual freedom, dignity, and autonomy to the right to privacy, freedom of speech, or the right to work and to healthcare.

We have also observed that significant overlap exists between (different constructions of) legal and ethical rights, but that the two dimensions are distinct. On the one hand, it may be the case that ethical rights, or aspects of them, are not legally enforced, or should even not be made legally enforceable, on ethical or practical considerations. This may be the case, for instance, with some dimensions of the right to privacy or the right to be protected from hatred and discrimination. On the other hand, certain legal rights or aspects of them may cover activities that lack an ethical justification. For instance, it may be argued that using AI for targeted political advertising, while permissible under existing law, may be unethical and should be legally banned.

This distinction between ethics and law does not exclude that the two dimensions may influence each another. Ethico-political arguments can be advanced concerning the need that an ethical right (or aspects or implications of it) should, or should not, be legally recognised. Ethical arguments can also be deployed to support the interpretation/construction of legal sources, and may thus contribute to determining the way in which the law is applied. On the other hand, ethics can learn from the law, which takes institutional approaches to normative issues, is expressed in publicly accessible sources and in critical commentaries on them, and contains vast examples of how (the norms extracted from) such sources are applied to concrete cases. Consider, for instance, how general ideas supporting an ethical right to privacy or an ethical right to free speech and to protection from discrimination have been translated into corresponding legal rights set forth in legislation and upheld in a vast case law.

The continuum between ethics and law is borne out by the fact that when speaking of the impact of AI on broadly scoped rights, such as privacy or freedom of expression, or on collective values, such as democracy, public discourse, health, or culture, there is often no reference to any specific ethical theory or municipal law, but rather to a cluster of issues, claims, and concepts pertaining to different ethical approaches and different international, regional, or national legal systems.

This multiple reference of the rights' language should not be condemned, as it contributes to the richness of the normative debate on the impacts of AI.[25] It should be combined with the ability to draw the necessary distinction when a more specific focus is needed.

Thus, lawyers should not be worried when the language of rights and values is deployed by ethicists, as when the term 'human rights', or terms such the 'right to autonomy', the 'right to privacy', or 'dignity' appear in documents on the ethics of AI. However, lawyers should refrain from translating ethical claims directly into legal claims, nor should ethical claims be misconstrued as legal claims or rejected for not being affirmed by existing laws. Similarly, ethicists should not be impatient when lawyers are slow or reluctant to incorporate, into the law, ethical claims concerning present and prospective uses of AI.

Finally, neither ethics nor law should be viewed as functionally equivalent, namely, as interchangeable substitutes in the regulation of AI. It has indeed been observed the enthusiasm of the

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25. The intertwining of ethical, social, legal considerations characterise indeed recent contributions, such as M. Hildebrandt, *Smart technologies and the end(s) of law: Novel entanglements of law and technology* (Edward Edgar, 2015); F. Pasquale, *The black box society: The secret algorithms that control money and information* (Harvard University Press, 2015); S. Zuboff, *The Age of Surveillance Capitalism* (Hachette, 2019); J.D. Cohen, *Between truth and power: The legal constructions of informational capitalism* (Oxford University Press, 2019).

major commercial players for ethical charters may be motivated by purpose of preventing the enactment of binding laws governing their activity, and consequent institutional controls.[26]

On the contrary, the law is needed whenever only a coercible public response can effectively counter abuses and misuses of AI, as well as when the allocation of public funds, and the deployment of governmental resources has to be directed to support the creation and accessibility of valuable technological solutions. Thus, the adoption of ethical guidelines by private actors does not exempt them from being subject to old and new legal constraints. Similarly, even under an adequate legal regulation of AI, still it makes sense to develop ethical frameworks, to guide the legally permissible uses of AI toward socially beneficial outcomes, and to support the application and evolution of the law.

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26. B. Wagner, 'Ethics as an escape from regulation: From "ethics-washing" to ethics- shopping? ', in M. Hildebrandt et al. (eds.), *Cogitas Ergo Sum: 10 years of profiling the European citizen* (Amsterdam University Press, 2018). For the need to provide a legal regulations of AI, see also G. Comandé and D. Amram, 'Feedback for the EU Commission Inception Impact Assessment towards a "Proposal for a Regulation of the European Parliament and the Council laying down requirements for Artificial Intelligence"' (2020), https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12527-Requirements-for-Artificial-Intelligence/F551050.