



THE “ETHIFICATION” OF PRIVACY AND DATA PROTECTION LAW IN THE EUROPEAN UNION. THE CASE OF ARTIFICIAL INTELLIGENCE

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Several European Commission’s initiatives have been resorting to ethics as a means to protect individuals from the risks posed by emerging technologies and as a way to govern and regulate the same innovation fields. The proliferation of invocations of “ethics” and “ethical principles/values” in the legal and policy discourse, as well as the growing importance of ethical expertise, ethical committees, ethical advisory groups and boards, ethical guidelines and principles can be referred to as the “ethification” phenomenon. While originally limited to the fields of life and medical sciences (in particular bioethics), this increasing propagation of ethics can recently be observed in the field of data protection law, especially concerning the recent European Union (EU) initiatives on (the regulation of) Artificial Intelligence (AI). This working paper aims to explore and shed light on where and through which means ethics is claiming authority and autonomy from data protection law as a separate field and regulation strategy. First, it will provide a topological mapping to locate where the ethics work is being produced in the EU. Second, the authors will elaborate a typology of ethics based on the mapping. Third, the effects on this ethification phenomenon on data protection law and AI regulation will be analyzed through the concept of boundary work, highlighting how ethics, on the one hand, is tracing boundaries to claim autonomy from the law, on the other, it is obfuscating these boundaries when it comes to give foundations to its practice. The aim is to elucidate the benefits and drawbacks of the ethification of data protection and privacy law, and its effects on the articulations of law, technology and ethics in democratic constitutional states.

Key Words: Ethics, Ethification; Privacy; General Data Protection Regulation; Innovation Governance; Artificial Intelligence; European Commission; Horizon 2020; Science and Technology Studies; Boundary Work

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Introduction

Ethical principles and fundamental rights are often invoked to protect individuals against the disruptive effects of digital technologies on their rights and freedoms. However, it is unclear what is the relation between “ethics” and law as means to protect individuals in the digital age. One way to see this relation is that “ethics” (like self-regulation and codes of conducts) is a more flexible practice to cope with unpredictable effects and rapid developments of emerging technologies, while the law is pictured as more rigid, time consuming and blamed of “lagging behind” technological development. In the field of privacy and data protection, reference to this law-lag narrative can for instance be found in recent ethical initiatives led by the legal actors themselves, such as the European Data Protection Supervisor’s (EDPS) Ethics Advisory Group or the European Commission’s High-Level Expert Group on Artificial Intelligence (AI). These initiatives, however, raise important questions about the relation of ethics with traditional legislative ways of regulating technologies and legal modes of articulating fundamental principles and rights in court. Moreover, this development bears the danger of weakening existing legal safeguards.

The main question of this working paper will be: where and through which means is “ethics” claiming authority in the European Union’s legal landscape of data protection? To address this question, this paper aims to explore the increasing role of ethics in European privacy and data protection law, which is not an isolated occurrence but part of a much larger phenomenon of what we call the “ethification” of policies and regulation, understood as the proliferation of invocations of “ethics” and “ethical principles/values” and the growing importance of ethical expertise, ethical committees, ethical advisory groups and boards, ethical guidelines, principles and handbooks. Two key aspects characterize the phenomenon of ethification. First, it is a result of the advancements in science and technology (and insights in the risks of these developments), starting in the life sciences (bioethics, nanoethics, biotechnology) and later expanding to all kinds of innovation fields, including digital innovation. Second, this ethification is itself a modality of governance or regulation of several innovation fields.

After a brief introduction on some key conceptualisations of ethics, we will look at where this phenomenon in the field of Information and Communication Technology (ICT) is taking place at the EU level (Section 1). This will include a focus on the topic of (the regulation of) AI, in relation to the recent interventions and initiatives of the main European bodies. Second, different types of ethics can be distinguished based on which kinds of method they produce and how they relate to data protection (Section 2). Third, we will analyze the effects of this growing and transformative phenomenon based on the previous analysis, using the Science and Technology Studies (STS) concept of “boundary work” (Section 3). The analysis will be carried out symmetrically: for two specific types of ethics, we will first analyze how ethics is creating boundaries to claim authority and autonomy from (data protection) law; then, how such boundaries are, at the same time, blurred when it comes to find an authoritative source for ethics. The aim is to shed light on the benefits and drawbacks such ethification might provoke in what has classically been thought as data protection and privacy law, and how it affects the complex articulations of the respective roles of law, technology and ethics in democratic constitutional states.

1. Ethification Topological Mapping

The ethification phenomenon in privacy and data protection is a broad phenomenon that include different practices, actors and institutions. Before starting to map this phenomenon, it is worth reflecting on the meaning of the term *ethics*. From a philosophical perspective, ethics is a synonym for moral

philosophy, which is branch of philosophy that deals, roughly, with a rational and practical reflection of what is good or bad and right or wrong. The terms ethics and moral(s) come from two terms, the Greek *ethos* and the Latin *mores*, of which the latter is a translation of the former, and both mean something like habit or custom. It can be argued that while the term morals refer to *de facto* habits, customs and traditions, ethics refer to a systematic reflection, a philosophical critique and evaluation thereof (today, mostly in an academic setting).

However, what we just defined as ethics can be further distinguished from what is portrayed as “ethics” as produced in institutional settings, for instance within the European Commission (EC), where moral thought has acquired a different form, related to policy, regulation and research integrity or, more generally, politics (Tallacchini 2009). It is this second meaning of ethics that we are interested in in this article. From now on, we will use the term ethics (without quotation marks) to refer to “ethics”.

The starting point of the mapping, to provide some background, is to ask when the ethification phenomenon first started in Europe, or at least whether there are some precedents of it in other fields. While this phenomenon is relatively recent in the field of ICT and privacy, this is not the case for the medical and, more generally, life sciences sector. It has been argued that ethics as an institutionalised and bureaucratised phenomenon started in the European context in the field of biotechnology (Tallacchini, 2009, p. 287). Back in 1991, the EC addressed the ethics of biotechnology in a Communication “Promoting the competitive environment for the industrial activities based in biotechnology within the community” (European Commission [EC] 1991), where the role and purpose of ethics in this sector was made clear. In November 1991, the Group of Advisers on the Ethical Implications of Biotechnology (GAEIB) was created, originally in relation to biotechnology and then spread to different areas of application of science and technology. The scope of this group, whose mandate terminated in 1997, concerning ethics was to identify ethical issues raised by biotechnology, assess its impacts and advise the EC (Tallacchini, 2009, p. 289).

Today, we are witnessing something similar in the field of privacy and data protection, where bodies, expert groups and research units are proliferating to produce ethics guidelines or reports on the research, development and use of disrupting emerging technologies, particularly in the context of a global race on “big data” and AI.

To elaborate on this new strand of ethification, the second step of the mapping is: *where* do you meet ethics (i.e. a topical mapping)? One way to answer this question is to refer to bodies, institutions, units and research groups that claim to “produce” a certain form of ethics (Dratwa 2014).

For the scope of the paper, we limit ourselves to the European Union, which, through its bodies and institutions, have been portraying a new role for ethics in the past years. Here, the EC is bringing forward a “European approach to AI and robotics”, as opposed to e.g. competitors from Silicon Valley or China. This approach is made clear in documents such as the Coordinated plan on AI “made in Europe” (EC 2018b), the Communication on Artificial Intelligence for Europe (EC 2018a), and the Communication on Building Trust in Human-Centric Artificial Intelligence (EC 2019). In short, this approach consists in considering AI as “an area of strategic importance and key developer of economic development”. Such goals, however, need to be achieved by carefully ensuring also “an appropriate ethical and legal framework, based on the Union’s values and in line with the Charter of Fundamental Rights of the EU” (EC, 2018a, p. 3). As for the legal framework, the Communication does not announce any legislative proposal, but it underlines how some of the current proposals could be relevant for AI (such as the ePrivacy

Regulation and the Cybersecurity Act). Still, the new EC President, Ursula von der Leyen, in November 2019 has called for EU draft rules for AI during her first 100 days.

A key site for the production of these programmatic documents about EU's AI strategy is the Directorate-General (DG) Connect, and particularly the Robotics and AI Unit (Unit A.1), which is tasked to develop a competitive industry in robotics and Artificial Intelligence in Europe, from industrial and service robots to drones and driverless vehicles, as part of the EC's "digital single market strategy". The task is performed following so-called "ethical and legal issues" related to robotics like liability and safety, but also the aspects related to the impact of automation on disappearance of jobs and the transformation of the work environment. In this regard, the unit published the report "building trust in Human-Centric Artificial Intelligence" (EC 2019), which main idea is to ensure that "European values are at the heart of creating the right environment of trust for the successful development and use of AI". At the same time, ethics is also portrayed as a business opportunity that can bring a competitive advantage. This is a significant quote of the report that helps to explain the general EU strategy for AI (EC 2019):

"Ethical AI is a win-win proposition. Guaranteeing the respect for fundamental values and rights is not only essential in itself, it also facilitates acceptance by the public and increases the competitive advantage of European AI companies *by establishing a brand of human-centric, trustworthy AI known for ethical and secure products*. This builds more generally on the strong reputation of European companies for providing safe and secure products of high quality. The pilot phase will help to ensure that AI products fulfil this promise" (p. 8) (italics added).

To implement this strategy, the EC's Research Executive Agency (REA) and DG Research and Innovation, whose tasks in this sense are the coordination of ethics review of EU Projects and the administration of projects specifically related to ethics, also play an important role. In short, they ensure that research projects on AI performed under EC's frameworks, besides developing innovative technologies, not only fulfill the existing legislative obligations, but also meet some necessary ethical requirements.

Another crucial initiative of the EC's roadmap for (ethical) AI is the creation of the High-Level Expert Group on AI (AI HLEG) and the European AI Alliance. The AI HLEG comprises 52 experts from various areas, with industry highly represented in the composition of the group. Created in June 2018, the AI HLEG was tasked to support the implementation of the European Strategy on Artificial Intelligence through the elaboration of two documents, namely, the Ethics Guidelines on Artificial Intelligence and Policy and Investment Recommendations. It is important to note how the second document "complements the Guidelines by providing guidance on appropriate governance and regulatory approaches beyond voluntary guidance" (High Level Expert Group on Artificial Intelligence [AI HLEG], 2019, p. 37). In other words, the guidelines constitute a first step (delineating "what AI we do not want for Europe"). The recommendations constitute the necessary second step to foster a principle-based approach to regulation and to map existing EU laws related to AI to evaluate and potentially revise them. Here ethics appeals to a sort of "constitutional" position, giving direction to what (AI) legislation should be.

The AI HLEG is the steering group of the European AI Alliance, a forum that make more than 3000 EU citizens and stakeholders engage in discussions on AI on dedicated platforms. This engagement would ensure broad participation in the policy making process of the EC. An example of this inclusiveness is that Alliance members could offer feedback and input to the AI HLEG's work, in form of specific questions, events and access to documents.

With a similar strategy focused on inclusiveness, public deliberation and reflection, another legal site that has dedicated attention to ethics in the EU is the European Data Protection Supervisor (EDPS). EDPS started discussing “digital ethics” as part of the EDPS 2015-19 strategy fostered by Giovanni Buttarelli (2017). This strategy was announced by the EDPS’ opinion towards a digital ethics (2015), and followed up by the various speeches given by Buttarelli himself e.g. at the Computers, Privacy and Data Protection conference in 2019, by the launching the #DebatingEthics conversations available as podcasts, the Public Consultation on Digital Ethics (2018) and, last but not least, the creation of the Ethics Advisory Group (EAG) in 2018. The mandate of the group was to explore the relations between human rights, technologies, markets and business models in the 21st century, which resulted in a report published in 2018. Here, Artificial Intelligence does not play the main role, but it is an important instance of the problematic emerging (set of) technologies that might produce socio-cultural “shifts” in foundational EU values and modes of governance. The starting points for the reflections of EDPS are the inviolability of human dignity, as defined in the EU Charter of Fundamental Rights (defined “a signpost” for the new digital ethics), and the universality of human values, which should never be overstepped in the digital age.

Another important body that recently addressed the ethics of AI is the European Group on Ethics and science in new technologies (EGE), which replaced the GAEIB in 1997 (see above). The EGE is tasked to provide the EC with independent advice on several ethical aspects of new science and technologies concerning EU legislation and policies. Following some publications on related topics like Ethics of Information and Communication Technologies (EGE 2012) or Ethics of Security and Surveillance Technologies (EGE 2014), in March 2018 the EGE published a statement on Artificial Intelligence, Robotics and “Autonomous” Systems, whose main goal is to call “for the launch of a process that would pave the way towards a common, internationally recognised ethical and legal framework for the design, production, use and governance of artificial intelligence, robotics, and ‘autonomous’ systems” (EGE, 2018, p. 5). On top of that, the authors provided a set of fundamental ethical principles, based on EU values laid down in the EU Treaties and the EU Charter of Fundamental Rights, including data protection and privacy (p. 19).

Finally, other important sites for mobilizing the EC’s strategy for (ethics of) AI are EU-funded projects. A prominent example, which is often advertised by the EC, is the AI4EU project, launched on 1 January 2019 and funded by the Horizon 2020 (H2020) EC’s work program. This massive project counts 79 partners in 21 countries across Europe, is led by Thales (France) and counts on a budget of 20 million euros over the next 3 years. The project, aimed at stimulating innovation in AI-on-demand platforms, established an AI4EU Ethics Observatory to ensure the respect of human-centered AI values, but also to stimulate reflections and discussions and educate the general public about the state of the art of AI.

2. Ethification Analysis: Typological Mapping

After having identified the key sites where the ethics work take place, we now turn to what forms does ethics take in these contexts (i.e. a thematical/typological mapping). Although they are all somehow intertwined, there are several distinct occurrences of ethics (of AI) work that are related to privacy and data protection to a different extent. Here we provide a (preliminary and non-exhaustive) typology based on the sites identified in the previous paragraphs.

Different types of ethics could be elaborated in many different ways, e.g. based on the sector considered

(e.g. private vs. public; research vs. business), the type of action performed (e.g. “enforcing” ethics requirements or “guiding” innovation policies) or the goal to be achieved (e.g. filling regulatory gaps or creating a competitive advantage for industries). For this paper, the three types we distinguish use the heuristic of the pillars of the H2020 framework as an indicative starting point. Each of the three pillars “embeds” a different conception of ethics: “Excellent science”, “Industrial leadership” and “Societal challenges”. First, ethics reviews help in co-producing the “excellent” EU scientific subject and make it competitive on a global scale. We will refer to this type of ethics as “Research Ethics”. Second, ethics helps in directing the EU’s efforts at “societal challenges”, in alliance with industry in public-private partnerships. We will refer to this type of ethics as “Innovation Governance Ethics”. Third, speeding up the development of technologies also requires the industry to become ethicized, through means like standardization, certification, risk assessment, etc. We will call this strand “Business Ethics”.

For each type of ethics, which may partially overlap with other types, we will briefly describe the disciplines that are involved, the methods that are operationalized and the specific relations to data protection and AI. This typological mapping will be the basis for the analysis of the relations between ethics and law in the next section, under the concept of boundary work.

1. Research Ethics: Ethics is often used as synonym of “research ethics” when dealing with human participants and, more generally, codes of conduct. Here ethics is seen more as a set of rules that have to be followed by researchers or staff members, who can be sanctioned in case they break such rules (e.g. by not receiving the grant, blocking the payment, delaying the project, etc.). In this case ethics may become legally binding and can be enforced because it is either part of a piece of regulation or part of a contract (e.g. a Grant Agreement). In the EC landscape, we can find instances of research ethics in the ethics reviews or “screening” process of research projects.

In general, codes of conduct for researchers are available as forms of self-regulation, thus not legally binding. One of the most relevant ones is the ALLEA¹ European Code of Conduct for Research Integrity (2017). The Code is recognized by the EC as *the* reference document for research integrity in all EU-funded research projects, as well as a model for researchers and organizations across Europe. Among the research practices delineated by the Code, we can find “Data Practices and Management” (Section 2.5). The section states that researchers should ensure appropriate stewardship of research data (according to the FAIR principles for data management), but no specific references to EU data protection regulations are made. However, it is mentioned in the factsheet by the EC that the Code might be updated as a result of the data protection reform package (EC 2017).

In the case of research performed within the frameworks of the EC, however, ethics can be “enforced” at the REA and DG Research and Innovation, whose tasks in this sense are the coordination of ethics review of EU Projects and the administration of projects specifically related to ethics. For example, the process to assess and address the ethical dimensions of projects funded under the framework H2020 is called “Ethics Appraisal procedure”. This procedure ensures that all projects under this program comply with “fundamental ethical principles”. Enforcement here is performed by conducting the “ethics review procedure”, before the projects start, and ethics checks and audits throughout the project. The ethics review procedure starts at the proposal stage, where projects considered for funding undergo an ethics screening performed by ethics experts, or simply

¹ ALLEA (All European Academies) is the European Federation of Academies of Sciences and Humanities founded in 1994.

experts. The ethics review can lead to adding to the project proposal ethics requirements (e.g. a separate work package) that become contractual obligations. In general, although ethics issues touch upon privacy and data protection too, no specific background (e.g. education in philosophy or data protection law) seems to be required for the job of expert, as the recruiting phase is not transparent but most likely based on their CV/profile on the “expert area” on the EC’s portal (which includes publications and experience in relevant fields of research and innovation).

The role of research ethics in the regulation of AI is rather limited: here AI development can be channeled in certain directions based on what is and is not allowed in research involving human beings (either in the medical sector or in the social sciences) and as a way to define protocols of good (clinical) practice (Tallacchini, 2009, p. 183).

2. Innovation Governance Ethics: Ethics in this sense does not pertain to research ethics, i.e. to “good” codes of behavior that researchers and staff should respect on their duty. Ethics instead is intended as a particular way of governing technological development, as a quasi-legal instrument that does not have a legally binding force but can still have a performative role. As a soft regulatory tool, ethics has been invoked as a neutral and more flexible instrument (Tallacchini 2009). The idea behind this approach is a governance response to advanced research in AI (Jobin et al., 2019, p. 13), where ethics fills regulatory gaps in (data protection) law and regulates grey areas or new technologies. This is also a way to avoid over-regulation which might be confusing. The form that innovation governance ethics takes in the context of AI is often principle-based. While there has been, in the last couple of years, a proliferation of ethics principles besides those issued in the EU institutions, it can be argued that there is a convergence of at least five core-principles which recur in most of the documents. These are: transparency, justice and fairness, non-maleficence, responsibility and privacy (Jobin et al. 2019).² Here, data protection and privacy play a prominent role since they are either invoked, as such, as self-standing principles (EGE, 2018, p. 19) or as requirements (privacy and data governance in AI HLEG, 2019, p. 17). Alternatively, data protection principles are invoked as ethical principles for AI, such as fairness and explicability (in AI HLEG, 2019, pp. 12-13).

It is important to note that this is a prominent, and often criticized, approach to ethics in the private sector, where this “tool” seen as more flexible and can be used by companies and industries in the form of self-regulations. One of the prominent examples is Google’s AI principles.³

3. Business Ethics: While the last two instances of ethics are rule-based, there is at least another sense of ethics which has a different meaning. Ethics is sometimes invoked not a set of strict rules to respect but a way to create a common EU identity, set of shared values, a “human centric AI approach” as distinct from those of competitors like China, Russia or the United States. This programmatic agenda is portrayed in the documents mentioned above (EC 2018a; EC 2018b; EC 2019). Additionally, it is purported by the European Political Strategy Centre (EPSC), the EC’s on-house think tank established in 2014, in its strategic note of 2018 and “Strong Europe, better world” publication. Remarkably, the EPSC’s strategic note states: “Europe should emerge as a quality brand for AI”.

² This research is based on an empirical study of grey literature including ethics principles.

³ See: <https://ai.google/principles>.

With a stronger economic emphasis, ethics can be seen as a business opportunity that can create competitive advantages for industry (Hasselbach & Tranberg 2016). It can be argued that here ethics is an added value to data protection, insofar as it goes beyond mere compliance with data protection law. Framed in economics terms, following this approach might give prosperity *in the long run* despite bringing economic disadvantages in the short term (EPSC, 2018, p. 5). Human centric AI is branded as an enabler, not a barrier, to innovation (EPSC, 2018, p. 6). This is also in line with how the concept of trust and trustworthy is stressed: companies that will gain (early) trust among their users will have a competitive advantage and build a stronger, trustworthy reputation (EPSC, 2018, p. 5). At the moment, this topic is particularly important in relation to privacy and data protection given recent scandals such as Cambridge Analytica.

The table below summarizes the results of the mapping in the previous two sections. The different types of ethics are related to the institutional settings where they are produced and operationalized, the disciplines or practices they involve and how they relate to data protection and AI.

Ethics type	Institutional/ Societal Setting	Disciplines/ Practices involved	Methods used and documents delivered	Relation to data protection	Relation to AI
Research Ethics	Ethics committees EU Institutions: REA, DG Research and Innovation Ethics Experts working for the EC	Research integrity Data protection law Social sciences	Ethics screenings, ethics reviews, codes of conduct (legally or not legally binding)	Reference to general data protection principles or regulations, sometimes framed as ethical issues	Research on AI should be bound by "good" research practices
Innovation Governance Ethics	EU bodies: AI HLEG, EGE, DG Connect (Robotics and AI Unit), EAG on Digital Ethics Private companies	Law Ethics Policy Business	Guidelines, frameworks, EC Communications Principle-based ethics	Data protection or data protection concepts are framed as ethical principles Ethics helps regulating "grey areas" of the law	Ethics as a more flexible way to regulate AI or as a basis to inform traditional regulation on AI Ethics as a way to "steer" governance of AI
Business Ethics	EU bodies: EPSC, DG Connect, EGE Consultancy companies Private companies	Business Law Politics	Codes of conduct, guidelines Reports Organization of events and workshops EC Communications EC website	Going beyond data protection law brings a competitive advantage The GDPR set ethical global standards around data protection and privacy	Going beyond data protection law brings a competitive advantage for AI initiatives Branding of trustworthy AI to harmonize AI approaches in the EU and export EU model in the world ("global standard")

The next section will focus on two particular instances of ethics (i.e. research ethics and innovation governance ethics) and analyze their relationship with the law. This choice is motivated by the fact that here the relation between ethics, law and AI is more evident and is creating more tensions and shifting boundaries than in the case of business ethics.

3. Ethification Effects: Boundary Work

The effect of the ethification phenomenon on the relationship between law and ethics in data protection will be analyzed under the lens of the concept of “boundary work”. In science and technology studies (STS), and philosophy of science Gieryn (1983) coined the term to describe the practice of demarcating science from other fields of knowledge (e.g. religion, politics or art), and also within science itself. He defines the concept as “[The] attribution of selected characteristics to the institution of science (i.e. to its practitioners, methods, stock of knowledge, values and work organization) for purposes of constructing a social boundary that distinguishes some intellectual activities as ‘non-science’” (Gieryn, 1983, p. 782). Gieryn shows how scientists are interested in demarcating their field (i.e. creating boundaries) from other ones (like religion, mechanics or pseudo-science) not only for academic purposes, but also for both protecting “autonomy” of scientific research and gaining public support. This boundary work can be described by looking at how some individuals or groups of scientists use discursive strategies, through e.g. policy documents or educational settings, to boost authority, expertise and legitimacy of their discipline.⁴ In sum, for Gieryn (1983), the problem of demarcation is not merely analytical, but it affects practical and institutional settings, as it is not only academics who decide what is scientific and what is not (p. 781).

Using Gieryn’s concept, we can characterize the ethification process as a boundary work emerging in the creation of (digital or data) ethics, by “ethicists”, as a discipline that does not only have a theoretical relevance, but that mostly has an enforcing power, a regulatory force and/or an institutional influence in the EU when it comes to data protection and AI. In this case, the boundary work is performed to distinguish between what is a matter of ethics and what is a matter of other practices, such as law, in research and innovation. Besides, boundaries are also traced *within* the field of ethics itself, to disqualify other practices as non-ethical or pseudo-ethics.

Gieryn (1983) notes how also science has ambiguous boundaries, since on the one hand a clear boundary between basic and applied science is established for certain goals, e.g. to cordon science (i.e. research at the universities) from government control (p. 791). On the other hand, the boundary is obscured or dissolved when other goals must be achieved, e.g. for public approval and research funding, by stating that even basic science makes contributions to technological applications and progress, thus downplaying the distinction between basic and applied research. In the former case, science is “made” to look more theoretical, while in the latter it is made to look more empirical. This could also apply in our case. While aiming at tracing clear boundaries to show the urgency of ethics “work”, at the same time, the discourse around ethics that we observe in the EU remains somehow superficial, or lacks “substance”. In contrast to academic debates on ethics or moral philosophy, there is not always much reference to deeper theoretical or analytical discussions, philosophical traditions or arguments.

⁴ For instance, Gieryn shows how in the Victorian England, John Tyndall (1820-1893), a professor of physics at the Royal Institution of Great Britain, performed boundary work by providing a set of ideological arguments to justify the need for greater public support to science against religion and mechanics. Furthermore, Gieryn explains how anatomists in the early 19th Century Edinburgh performed boundary work within science, to exclude phrenologists from enjoying the reputation of being legitimate scientists.

Instead, ethics principles and requirements are often (quickly) justified insofar as they are rooted e.g. in the fundamental rights and values enshrined in the EU Charter. As a result, the boundaries between ethics and the law when it comes to more fundamental issues, like the relation between a human right framework and ethical principles, between data protection legislation and ethical principles, or between data protection risks and ethics/ethical risks become blurred.

This double face of boundary work of tracing and blurring boundaries, depending on the goal to be achieved, will be analyzed symmetrically in two instances of ethics work, i.e. research ethics and innovation governance ethics. For each type of ethics, we will first analyze how boundaries are traced (3.1.1 and 3.2.1); subsequently, we will move to how these boundaries are obfuscated (3.1.2 and 3.2.2).

3.1 “Ethical Boundary Work” in Research Ethics

The phenomenon of boundary work production in research ethics has already been analyzed in medical ethics where the term “ethical boundary work” was coined (Wainwright et al. 2006). Social scientists in this field showed how, in domains like stem cell research or animal experiments, scientists construct a series of boundaries not to distinguish science from non-science, but to determine what is ethical and what not in their research field, as well as to defend their work from the accusation of being unethical (Hobson-West, 2012, p. 652). For instance, researchers draw boundaries between animals and humans to justify how research on animals is needed to benefit humans, or between which embryos can be used in research depending on their source. In sum, the boundary work in these cases is performed between the field of ethics and medical sciences.

3.1.1 Research Ethics and Data Protection Screenings

However, the type of ethical boundary work that is taking place about data protection research ethics in EU bodies is different. What is interesting here is the boundary work performed by the ethics reviewers or ethics experts working for the EC between the field of ethics and data protection law, as well as the EC’s bodies tasked with managing ethical issues in research and innovation projects. They are re-defining what count as ethical problems or requirements in research borrowing data protection concepts, to increase the authority and the need of ethics experts in this field. While, traditionally, ethics in research was linked with medical issues, such as informed consent about experimental treatments, nowadays we are witnessing how ethics (in the form of ethics committees) 1) is expanding to social sciences too; 2) is giving importance to data protection issues, framed as ethical issues. This phenomenon can be observed from the increasing role of GDPR-related requirements in “ethics screening” of projects, especially when it comes to research with human participants (e.g. H2020). This is evident in the documents drafted by the panels of experts on request of DG Research and Innovations like “Ethics in social science and humanities” (2018) and especially “Ethics and data protection” (2018). In the former document it is written that “the main risk faced by a SSH [social sciences and humanities] research participant is disclosure of identity and insufficient protection of their information” (p. 15). In the latter, data protection issues like anonymization, informed consent, secondary use or a Data Protection Impact Assessment (DPIA) are framed as “ethics issues in your research proposal” (p. 6) and are usually treated in a separate work package of the project.⁵

5 It must be noted that both documents have a disclaimer that says: “[The document] does not constitute official EU guidance. Neither the European Commission nor any person acting on their behalf can be made responsible for the use made of it”. This is interesting for two reasons: 1) it seems that the EC does not want to be held responsible for what is written, in case it is imprecise: 2) although the EC does not support explicitly the documents, this provides good insights on the actual work that is performed by ethics experts at the EC, since the latter wrote the document.

A similar trend can be observed at the research committees at the University of the authors at the Vrije Universiteit Brussel (VUB), as a consequence of the entry into force of the GDPR and possibly to align with the ethics reviews process that takes place in EU projects. The long lasting Commissie Medische Ethiek (Committee for Medical Ethics, established in 1994) and the Ethische Commissie Dierproeven (Ethical Committee for Animal Testing) were recently joined by the Ethische Commissie Humane Wetenschappen (Ethical Committee for Human Sciences, ECHW) and the Ethical Committee for Dual Technologies, Military Research and Misuse (ECDMM). In the ECHW's guidelines for ethical approval,⁶ the concepts of privacy and data protection play an important role, including a link to a brochure made by the Privacy Commission in Belgium (p. 4). EU and Flanders-funded projects at the University have to obtain an approval by such committee for research involving human participants, including e.g. interviews.

3.1.2 Ethics Boundaries Obscuration

The boundaries of research ethics are traced when it comes to talk about “ethics data protection issues” or “ethics data protection risks” in research projects, to give reasons why they would require separate work packages, procedures, ethics committees approvals, ethics expert (ethics advisor, ethics mentor or ethics manager) and so on. At the same, the boundary is made opaque when the goal is to give a foundation to ethics reviews, or to find an authoritative “source”, by clearly defining what makes an issue “ethical” as opposed to legal. Paradoxically, such source is often found in a legal text and the principles therein.

A relevant document to analyze with this idea in mind is “Ethics and data protection” (2018) in H2020 research proposals, mentioned above. Throughout the document, there is a clear reference to GDPR technical concepts (e.g. data subject, processing, pseudonymisation or special categories of data; boxes with definitions from the GDPR are provided all over the document, e.g. p. 5) but with the idea of going *beyond* the letter of the law. The document clearly states that “the objective of this guidance note is to ensure that, *in addition to* respecting legal obligations, all projects are guided by ethical considerations and the values and principles on which the EU is funded” (p. 3, italics added) or “the fact that your research is legally permissible does not necessarily mean it will be deemed *ethical*” (p. 3, italics in the original). From this wording, it seems that GDPR requirements are necessary but not sufficient in research integrity. However, throughout the document, it is not made clear what ethics would add to, and how it would differ from what is already stated in, the letter of the law. For instance, in the section about “identifying ethics issues in your research proposal” (p. 6), the document states that projects raise “higher ethics risks” in case high risk processing activities take place (e.g. special categories of data, children, large scale processing, automated processing and profiling, etc.). What counts as a high risk from a data protection perspective and from an ethics perspective is not further specified. It is also interesting to note that, in case the project involved high risk processing activities, the document states the researchers need to carry out a DPIA according to Art. 35 GDPR, as well as consult a Data Protection Officer (DPO). First, it is not clear how a DPIA would “help researchers [...] to identify and address the ethics issues that arise from their methods and objectives” (p. 14). DPIA is a legal tool, whose provisions in the GDPR are quite minimalistic (“legal hook”) and open to interpretation (Kloza et al. 2019), but they do not refer explicitly to ethics issues. It is unclear why the authors of the guidelines did not put, for instance, an ethics impact assessment as mandatory instead of a DPIA. Also, judging whether a DPIA is carried out according to the letter of the law, would require a data protection expert/reviewer.

⁶ Available in Dutch at <https://www.vub.be/sites/vub/files/research/LEO/richtlijnechhw.pdf>

If, say, a philosopher (as ethics reviewer) was to read a DPIA report, she might not have the necessary skills to grasp all the nuances of the data protection jargon. Moreover, while a DPIA in research projects, according to the document, should go *beyond* the law and encompass ethics issues, when the document analyses the cases where a DPIA is required, it refers to the Article 29 Data Protection Working Party's Guidelines on DPIA (2017). Therefore, no relevant criteria are added beyond mere legal ones. As for the role of the DPO in the ethics review, it is unclear why and how she would be qualified to advise on ethics issues.

Instead of going beyond the law, the risk here is that a proper data protection "screening" for research, performed e.g. by data protection experts or lawyers, as separated or in combination with an ethics screening, is transformed into a more "lenient" or, worse, "watered down" screening, thus losing the power and legal safeguards provided by the GDPR. One could reply that such a document is not that important and does not deserve all this attention. It is true that the document just analyzed is not an official document issued by the EC, but it has been used as a guideline to identify and screen ethics issues in projects (also, for instance, at the VUB) and it has therefore had a performative role in steering research projects. Here it seems that the EC does not want to have responsibility over a document, but at the same time it is tolerating, or even encouraging, its use, which is contributing to shape the EU research culture about data protection ethics.

At the same time, one could claim that documents like the one just analyzed can still be beneficial because they raise awareness and introduce researchers to data protection issues in a clearer and layman language. This is a valid point, as it could be argued that there is the need to bridge the gap between lawyers and non-lawyers on data protection; and privacy, more generally, is not just a legal matter. However, this should be stated clearly in the document and not left to the reader to imagine. Currently, it is not reflected in the content of the document how to combine ethics and data protection to go beyond the law. It could be clarified, for example, that the scope of the document is, instead, a way to get closer to compliance with the law for people that are not familiar data protection requirements.

3.2 Boundary Work of Innovation Governance Ethics

Another type of boundary work performed to claim the autonomy and authority of ethics from the law is that of innovation governance ethics that aims at the governance and regulation, *inter alia*, of AI developments. We will look at how specific authors or institutions have been performing boundary work in these directions, and what type of arguments and rhetorical devices they employ to set boundaries and claim which advantages ethics could offer compared to traditional governance and regulation means. To show this phenomenon, it is worth referring to some recent works of the philosopher Luciano Floridi, whose ideas are reflected in the approach to ethics and AI of the EC.⁷

3.2.1 The Expansion of Innovation Governance Ethics Towards the Law

In some of Floridi's later works (2018a; 2018b; 2019), he attributes essential characteristics to ethics and delineates its crucial role in the field of Artificial Intelligence and data protection. He argues that the difference between merely complying with (data protection) law and doing data ethics is like "playing

⁷ Floridi is an Italian philosopher working at Oxford, who is also a member of the EDPS' Digital Ethics Group, the AI HLEG and the Council of Europe's Committee of experts on Human Rights dimensions of automated data processing and different forms of Artificial Intelligence (MSI-AUT).

according to the rules” and “playing well to win the game” (Floridi et al. 2018, p. 694). This is in line with what is said by the EDPS in its Opinion of 2015, or by the documents issued by DG Connect. The regulatory framework in place (mostly the GDPR is referenced) is “good” and “strong”, *but* there are deeper issues that the law cannot answer or address, and therefore ethics is needed. The AI HLEG (2019) also frames the relation of ethics and law this way, when it distinguished between “lawful”, “ethical” and “robust” AI as the three components of trustworthy AI: “While the two latter are to a certain extent often already reflected in existing laws, their full realization may go beyond existing legal obligations” (p. 6).

A recurring argument by Floridi is that compliance with the law is necessary but insufficient to steer technological developments in a desirable direction (Floridi, 2018a, p. 4). To this end, he distinguished between “hard” and “soft” ethics. The former, with a hint to Natural Law theories, is “what makes or shapes the law” (Floridi, 2018a, p. 4). Its goal therefore is to push (“lobby”) for some good legislation or improve what is already in place. The underlying assumption here is that the law may be *wrong* in certain cases, or that “‘ought’ may be followed by ‘even if not’” (Floridi, 2018a, p. 163). To give an example of hard ethics, Floridi refers to how ethics helped to overcome the apartheid in South Africa (Floridi, 2018a, p. 4). By contrast, soft ethics aims to intervene “over and above the existing regulation, not against it”. Soft ethics (such as in the case of AI) thus works only where “good” regulation is already in place, like in the EU with the GDPR and unlike China, Russia or even the United States.

The relation between soft ethics and the GDPR is delineated more carefully in Floridi (2018b). Floridi puts ethics both *before* and *after* data protection law (p. 166). On the one hand, hard ethics “generates” the GDPR articles and Recitals, which “may be seen in action by looking at a comparative analysis of drafts from the European Parliament and European Commission and the amendments to the Commission’s text proposed by the European Council” (Floridi, 2018b, p. 165). Here hard ethics enables negotiations and discussions, and takes place before a regulation is made. This is in line with the EU’s coordinated plan on AI: first, ethics guidelines are developed; then, *based on* them, regulations on AI are made. On the other hand, a soft ethical framework helps to interpret (“to provide the best interpretations of”) the GDPR Recitals, which in turn are non-legally binding texts that explain the provisions of the GDPR articles (Floridi, 2018b, p. 165). Here soft ethics has a hermeneutic power and takes place after the regulation is already in established.

A second argument to justify why ethics is needed is that the law lags behind, which is known as “the pacing problem” (Marchant et al. 2011). The idea is that changes in the technological landscape are so quick and profound, that the moment legislators try to regulate, such regulations become rapidly outdated and therefore ineffectual. Ethics, by contrast, is portrayed as a more agile and flexible alternative that can produce more desirable results. This is stressed also by the AI HLEG (2019): “Laws are not always up to speed with technological developments, can at times be out of step with ethical norms or may simply not be well suited to addressing certain issues. For AI systems to be trustworthy, they should hence also be ethical, ensuring alignment with ethical norms” (pp. 6-7). Ethics has a “dual advantage”, which echoes the expression “dual use” to refer to technologies that can have both a civilian and military application, such as nuclear technologies (Floridi 2018b). On the one hand it enables opportunities offered by digital technologies (against regulations that might be “too rigid”). On the other hand, it helps to minimize mistakes and possible risks, by intervening at a very early stage. Using a metaphor, “the best way to catch the technology train is not to chase it, but to be at the next station” (Floridi, 2018a, p. 6).

3.2.2 Ethics Boundaries Obscuration for Innovation Governance Ethics

Similar to research ethics, as for innovation governance ethics, the boundary with law is traced when it comes to stress the need of ethics to steer or complement innovation in a certain direction. By contrast, such boundary is glossed over when ethics so conceived needs to be grounded, and the distinction between ethics (or moral) and legal rights or principles need to be explained. To achieve a common foundation of ethics in the EU landscape, whereby any EU citizen can identify, the authoritative source is found once again in legal texts.

Let us recall the two arguments used by Floridi, the EDPS and the AI HLEG to trace boundaries in section 3.2.1, i.e. the fact that:

1. Compliance with the law is necessary but insufficient
2. Legislation cannot keep pace with technology, therefore ethics is needed

The first argument assumes that ethics adds something to legal principles and requirements that go beyond the law. However, like in the case of research ethics outlined above, this is not made sufficiently clear. In the AI HLEG (2019), “privacy and data protection” is considered a sub-requirement of the broader requirement “privacy and data governance”. One could expect here that this requirement includes broader aspects of privacy beyond informational privacy and data protection, like social and political dimensions of privacy, power asymmetries, and so on. Instead, the focus is mostly on data protection, as the sub-requirements are “privacy and data protection”, “quality and integrity of the data” and “access to data” (p. 17), which recalls, implicitly, data protection principles (Art. 5 GDPR) and the Right of Access by the data subject (Art. 15 GDPR). Even later on in the document, at the section “relation to existing law and processes”, the matter is not clarified: “For example, data protection law sets out a series of legal requirements that must be met by those engaged in the collection and processing of personal data. Yet, because Trustworthy AI also requires the ethical handling of data, internal procedures and policies aimed at securing compliance with data protection laws might also help to facilitate ethical data handling and can hence complement existing legal processes” (AI HLEG, 2019, p. 26).

The problem is: what is *ethical handling* of data? The boundary between ethical and legal handling here is blurred. It must be acknowledged that the document provides a thorough assessment list, including self-assessment questions for AI practitioners, that does include issues that go beyond the law, such as societal and environmental well-being, ranging from job de-skilling to environmental impacts of AI. However, the questions related to “privacy and data governance” include mostly a “checklist” of GDPR requirements, such as minimal use of sensitive data, consent, encryption, or consultation with a Data Protection Officer (AI HLEG, 2019, p. 28). This list of questions is per se not problematic; quite the contrary, it could be very useful in certain situations to help ensuring GDPR compliance. However, it remains unclear how these questions would address ethical issues. Like the case of research ethics above, no relevant criteria are added beyond mere legal ones.

Secondly, the pacing problem argument assumes that, while the law cannot keep pace of technologies, ethics *can*. This argument is problematic both from a substantive and from a procedural point of view. From a substantive point of view, it is not clear why ethics would also not suffer from being “left behind”. “Our” ethics norms, concepts and values might also change due to technological development or require to be adjusted. This type of reasoning is echoed by the EDPS’ EAG report (2018), which aims at

“considering more general and fundamental questions about what it means to make claims about ethics and human conduct in the digital age, when the baseline conditions of “human-ness” are under the pressure of interconnectivity, algorithmic decision-making, machine-learning, digital surveillance and the enormous collection of personal data, about what can and should be retained and what can and should be adapted, from traditional normative ethics” (p. 11). The report shows how digital technologies might bring about socio-cultural shifts that would make us “amend” or “revisit” traditional concepts such as trust, friendship, community and so on (p. 15) or values like autonomy, dignity and equality (p. 18).

From a procedural point of view, ethics is preferred to law because the latter is deemed too rigid and always lagging behind technological development, whereas the former is more flexible since it does not need to go through the lengthy procedures of legislation or adjudication. The problem that however arises in this case is that ethics would lack both the credentials of democratic representativity and the legal checks and balances and processual quality guarantees, thus constituting “rule-making beyond the Rule of Law” (Felt et al. 2007; Tallacchini 2015). This aspect has already been harshly criticized when companies, such as, recently, Google, come up with their list of ethics principles. In such cases it is unclear e.g. who took part in the decision-making process to elaborate those principles and their formulation, who is making sure that the principles are respected and through which means, when there is a violation of an ethical principle, who is going to be held accountable if the principles are violated, and so on.

In sum, at a further scrutiny, the argument that resorting to ethics is necessary to remedy to the law-lag issue, despite being invoked by several authoritative sources including legal ones, is controversial, since ethics principles (or requirements, or guidelines) would also need to be revisited in the light of technological developments. If ethics can also suffer from the pacing problem, the boundaries between ethics and law become once again opaque.

3.3 Boundary Work Within Ethics

When describing the boundary work performed by scientists, Gieryn (1983) notes also how scientists aim not only to demarcate science from other disciplines, but also to exclude from science some disciplines, which claim to be “scientific”, as non-science or pseudo-science. This type of boundary work “from within” is also performed by ethicists, to distinguish between what counts as “genuine” ethics practices and what does not, who is a real ethicist and who is not. One of the most criticized forms of ethics in data protection is self-regulation. For example, ethics as self-regulation has been criticized for being a form of escape from regulation or a way to delay the debate and work on law for AI (Nemitz 2018). In this case, the proliferation of ethics principles, self-made by companies, would be just a way to slow down or avoid AI (traditional) regulation altogether.

This type of critique, has not come just from legal scholars. Ethicists too are warning about the possible “pseudo” forms that ethics can take. We will label these forms as “pseudo-ethics”, in analogy to the idea of “pseudoscience”, to suggest the fact that there are some activities that are alleged to look only superficially as ethics but serve instead other goals. Several types of such “pseudoethics” have been distinguished:⁸

8 For a typology, see (Floridi 2019).

- **Ethics dumping**, i.e. the practice of carrying out (digital) research activities, by EU organizations, outside the EU in ways that would be ethically unacceptable in the place of origin (EC, 2015, p. 35; Schroeder et al. 2019);
- **Ethics shopping**, i.e. the practice of “mixing and matching” ethics principles from various sources in order to justify, a posteriori, some pre-existing behaviors, instead of promoting new behaviors based on public ethical standards (EGE 2018; Wagner 2018);
- **Ethics washing**, i.e. the practice of public and private actors to make their digital initiatives appear more ethical than they really are (Metzinger 2019; Wagner 2018). In an article in Der Tagesspiegel, Metzinger (2019) talks about ethics washing and “fake ethics” (in analogy with fake news) to lament how industry organizes ethics debates to delay effective regulation and policy making by “including lots of conceptual smoke screens and mirrors, highly paid industrial philosophers, self-invented quality seals and non-validated certificates for ‘Ethical AI made in Europe’”. As a concrete example, he refers to the defusal, by the president of the AI HLEG, to include “red lines” (i.e. non-negotiable ethical principles) in the Guidelines. In parallel to “greenwashing” for environmental initiatives, such activities can be called “blue-washing” since they often relate to first-generation human rights as civic and political freedoms often called “blue rights” (van Dijk et al. 2018). Digital ethics is here used to delay, replace or avoid altogether necessary legislation about technological solutions (also called “ethics lobbying”, Floridi 2019);

In this sense, the boundary work performed here is meant to distinguish ethics from other practices that look like ethics but do not belong to the field. This double-edged strategy, again, is not merely on a theoretical level. On the one hand, it is defensive, to defend ethics and make it more credible and necessary, in its form of self-regulation, from the accusation of e.g. lawyers for being too superficial and lacking accountability mechanisms. On the other hand, it serves to disqualify pseudo- or fake-ethicists, and exclude them from enjoying the reputation of being legitimate experts.

4. Concluding remarks

To conclude, this working paper offers a preliminary analytical interpretive framework to understand the role of ethics in the EU data protection landscape, and more specifically in the debate on the regulation of AI. To do this, we first carried out a mapping exercise to identify the “sites” where the ethics work is produced in the EU bodies and institutions to then elaborate different types of ethics practices with different ambitions, methods and relations to privacy, data protection and AI. To analyze the relation of ethics with data protection law, we made use of the concept of boundary work to show how ethics (through institutions, ethicists and other bodies) is creating boundaries to claim authority and autonomy, especially from data protection law. Taking inspiration from Gieryn (1983), we showed how there is a double boundary work going on for ethics depending on the goal that is pursued. Sometimes, ethics claim autonomy and novelty from data protection concepts, reasoning and approaches to solve problems brought about by technological (AI) developments. In other situations, to achieve foundations, claim authority and increase public support, such boundaries are blurred or made opaque, and it is not clarified how ethics problems, risks, principles or methods differ from legal ones. Instead of recurring to philosophical concepts and reasoning, data protection principles or fundamental rights are referred to as the main authoritative source.

The results of this preliminary analysis can have both a practical and theoretical impact. From a theoretical perspective, the analysis can urge legal scholars to address the topic of the relation between ethics and law in data protection, in the light of the novel phenomenon of ethification. It can also open up the discussion to interdisciplinary researchers, by broadening the scope of traditional legal analyses through interpretive tools from the field of STS. From a practical perspective, the analysis can help policymakers and legislators to think critically about ethics as a regulatory strategy, especially for EU’s strategy for AI. We believe that, before embracing ethics as a more desirable way to protect individuals and steer research and innovation, there is a need to tinker or better define the role of ethics in terms of content of ethical principles, checks and balances systems and public legitimacy of ethics work.

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