Constructing
Commercial Data Ethics

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The ethics of big data and AI have become the object of much public debate. Technology firms around the world have set up ethics committees and review processes, which differ widely in their organisation and practice. In this paper we interrogate these processes and the rhetoric of firm-level data ethics. Using interviews with industry, activists and scholars and observation of public discussions, we ask how firms conceptualise the purposes and functions of data ethics, and how this relates to core business priorities. We find considerable variation between firms in the way they use ethics. We compare strategies and rhetoric to understand how commercial data ethics is constructed, its political and strategic dimensions, and its relationship to data ethics more broadly.

1. Introduction

The rapid ascent of big data and AI as objects of attention in public debate over the last decade has created acute visibility and demand for both data and AI ethics. Firms engaged in the data economy have had to engage in discussions on ethics that at first took them largely by surprise, and have experienced a steep learning curve as they have been forced to define a moral stance on civil and political rights, freedom of speech, privacy, autonomy, and to justify their research and operational choices beyond concerns of shareholder value. The applied ethics of data and, more recently, AI have been central to how firms have addressed this challenge, bringing the ethics of technology out of the academy and into the corporate world through consulting, advisory boards and the formation of tools, guidelines and assessment services by third parties on an entrepreneurial basis.

This extraction of applied ethics from its origins in academia and its insertion into the high-stakes, high-velocity field of commercial technology development has resulted in a new commercially stimulated data ethics with its own objectives and rhetoric. This commercial ethics aims to shape social expectations of both data technologies and of the firms that create and deploy them: it is an instrumental ethics that aims to have tangible political and economic effects. In order to understand these effects, one starting point is to analyse data ethics as a discourse, separating out the rhetoric and practices involved in commercial data ethics and exploring them as strategic tools in

a business environment. This paper aims to interrogate its starting points, its moral stance on data technologies and, most importantly, what kind of work its proponents and stakeholders see it as doing in relation to the technology sector.

The research for this paper was conducted over the period 2014-2019. The methods used consisted of institutional ethnography and elite interviews[1] at technology firms including mobile network operators and data analytics consultancies, observation and follow-up interviews conducted by participating in data ethics and governance events where we participated in discussions with a range of groups. These included academic computer science and data science researchers, specialists in NGOs and international organisations conducting data analytics, and commercial data analytics specialists within firms. We also followed policy discussions over this period through meetings and reports. Finally, we conducted participant observation at various events on the ethics of AI and data analytics in the UK, the Netherlands, Germany and hosted by international organisations such as the World Economic Forum and the United Nations.

In order to further inform our findings, we conducted a series of eight interviews comprising three leaders of civil society organisations working on technology and rights, an ethicist, two corporate employees leading data ethics programs, and one independent member of a corporate ethics committee. These interviews focused on the specific issues we planned to focus on in this paper. It is therefore both these

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[1] This paper draws on qualitative research conducted during a Marie Curie postdoctoral fellowship at the University of Amsterdam on big data in the development and humanitarian sectors, and during the 'Global Data Justice' ERC project at the University of Tilburg. Together these projects involved 200 formal and informal interviews with users and managers of big data resources, as well as observation in firms dealing with big data in different sectors. Some of the interviews were also conducted as part of the OSF-funded project 'Toward Democratic Auditing: Civic Participation in the Scoring Society'.

interviews and the fieldwork preceding them which form the basis for our analysis of the current state of play in commercial data ethics. Where possible we reference the source of our findings, but we have also reported some findings where the source or interviewee did not wish to be named, or where doing so would expose them to negative consequences. It is worth noting that this final set of nine interviewees were all based in or worked in Europe. In our research we aimed to understand what the actors involved understand by data ethics, what practices and power relations they observe in relation to the practice of data ethics in the corporate environment, and finally, what is ethical about data ethics.

This paper is not written from either the disciplinary perspective of ethics, or the subdiscipline of data ethics. Our aim, rather than establishing principles or advocating a particular agenda for the field of data ethics, is to provide a critical analysis of the commercial sector's development of 'data ethics' as a guiding set of principles, and to interrogate how it opens up possibilities for action and avenues of discussion while closing down others. As such, the starting point for this analysis is the notion that we can identify particular constructs of 'data ethics' and 'AI ethics' existing amongst private-sector developers and implementers of data technology, and that these need to be interrogated to highlight their power dynamics and politics. Which perspectives and aims do these discourses of ethics centre; which actors in tech companies define and articulate them; and what are the political and rhetorical strategies they use to leverage influence and change? As such, this paper does not offer or endorse any particular ethical view on data technologies, but instead provides a critical perspective on the work these constructs are doing in the private sector, and in society more broadly. The paper therefore takes a political economy approach to the phenomenon of technology firms' ethics processes. Our scope does not extend to the intersecting world of public-sector data ethics, though this type of analysis could also be conducted there (and some of our interviews with activists touched on this area in their responses).

2.   Typology - What kinds of ethics are appearing in relation to data science?

Overall, commercial perspectives on data ethics are, unsurprisingly, defensive. They are defined by a technologically determinist framing where innovation is axiomatically good and therefore marches on, and the economic value of data must be realised. The big tech and advisory firms focus on ethics as a way to build, maintain or resurrect 'consumer trust'[2], a trust that is also cited as an objective to be achieved through investment in ethics centres and research within academia, such as the Facebook-funded AI ethics research centre at Technical University of Munich.[3] But without strong regulation of the technology sector to create trustworthiness, it may be premature to focus on evoking trust in data technologies. It is worth asking what kind of ethics is at work under this rubric of promoting trust and functionality in a world of inexorable technological expansion? Observations in the field suggest various possibilities: ethical discussion is seen by some as the oil that enables the digital economy to run smoothly without interruption from law and regulation; others

pragmatically use ethics discussions for the tactical containment of reputational risk. The bigger firms see data ethics as a kind of insurance: an antidote to moral panic on the part of the public (one of the anxieties driving warnings of 'loss of consumer trust'), while others see it as a variant of corporate social responsibility that is part of a mission statement about promoting certain public values while not doing harm.

Data ethics, as a field, can be thought of as a network of nodes representing frequently entangled and interacting but different streams of thought and practice. First, a philosophical node stemming from the academy, which defines data ethics as the branch of ethics that studies and evaluates moral problems related to data, algorithms and corresponding practices, in order to formulate and support morally good solutions.[4] Second, there is a node of applied ethics conducted by philosophers, computer and social scientists, many of them working within, or in collaboration with, the commercial domain, of which value-sensitive design is one element.[5] Another element within this node continues a long-standing tradition of computer ethics while changing the level of abstraction of ethical enquiries from an information-centric to a data-centric one, i.e. from a focus on how to treat information as an input and output of computing to a focus on how people access, analyse and manage data in particular.[6] This node tends to focus not on any specific technology but on what any digital technology manipulates. Key issues concern re-identification or de-anonymization and risks to privacy, forms of discrimination and abuse, trust, transparency, accountability, lack of public awareness and responsible innovation and usage. This node is connected to one of civil society advocacy where data ethics is providing a framework for guidelines to advance data developments 'for good' across a range of contexts (for example Open Data Institute's 'Data Ethics Canvas' and UNI Global Union's call for a 'Global Convention on Ethical AI'). In the UK, the government agreed to set up a 'Council of Data Ethics' in 2016 in response to a report by the Science and Technology Committee on 'The big data dilemma'[7], which became the Centre for Data Ethics and Innovation. This is in parallel to similar councils being created in the US and elsewhere. Finally, there is a node of the network dominated by industry, incorporating advisory services, tech corporations' own operations with regard to ethical review and reflection, and work by specialists that aims to shape these corporate processes.[8]

Whilst we recognize the entanglement of these different nodes, in

2   Accenture, 'Universal Principles of Data Ethics: 12 Guidelines for Developing Ethics Codes' (2016) https://www.accenture.com/_acnmedia/PDF-24/Accenture-Universal-Principles-Data-Ethics.pdf; World Economic Forum, 'Rethinking Personal Data : A New Lens for Strengthening Trust' (World Economic Forum 2014).

3   See Deutsche Welle, 'Facebook Funds AI Ethics Center in Munich' (DW.com, 2019). Available at https://www.dw.com/en/facebook-funds-ai-ethics-center-in-munich/a-47156591 (last accessed 1 April 2020).

4   Luciano Floridi and Mariarosaria Taddeo, 'What Is Data Ethics?' (2016) What is data ethics? *Phil. Trans. R. Soc. A.* 374: 20160360, https://doi.org/10.1098/rsta.2016.0360.

5   I van de Poel and L Royakkers, 'The Ethical Cycle' (2007) 71 Journal of Business Ethics 1; Jeroen van den Hoven, 'ICT and Value Sensitive Design' in Philippe Goujon and others (eds), *The Information Society: Innovation, Legitimacy, Ethics and Democracy In honor of Professor Jacques Berleur s.j.,* vol 233 (Springer US 2007) https://link.springer.com/10.1007/978-0-387-72381-5_8 (last accessed 1 April 2020); Peter-Paul Verbeek, *What Things Do: Philosophical Reflections on Technology, Agency, and Design,* vol 43 (Penn State Press 2005) https://choicereviews.org/review/10.5860/CHOICE.43-1523 (last accessed 1 April 2020).

6   See e.g. Adams, A. A., Report of a debate on Snowden's actions by ACM members. (2014) *ACM SIGCAS Computers and Society, 44(3),* 5–7. https://doi.org/10.1145/2684097.2684099 *(last accessed 1 April 2020); Jacob Metcalf, and Kate Crawford, Where are human subjects in big data research? The emerging ethics divide. (2016) Big Data & Society, June, 1–34.* https://doi.org/10.1177/2053951716650211 *(last accessed 1 April 2020).*

7   Commons Science and Technology Committee, 'The Big Data Dilemma' (UK House of Commons 2016) https://www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/inquiries/parliament-2015/big-data/ (last accessed 1 April 2020).

8   See e.g. Gry Hasselbalch and Pernille Tranberg, *Data Ethics - the New Competitive Advantage* (Publishare 2016) 11.

this paper we are particularly interested in the corporate engagement with data ethics, its vision and objectives, and the kind of power it draws on. Perhaps the most recognisable narrative for this agenda is articulated by Hasselbalch and Tranberg, who frame data ethics as a new evolution of the corporate social responsibility agenda, forming 'a new competitive advantage':

> A company's degree of "data ethics awareness" is not only crucial for survival in a market where consumers progressively set the bar, it's also necessary for society as a whole. It plays a similar role as a company's environmental conscience – essential for company survival, but also for the planet's welfare.[9]

This struggle for competitive advantage through data ethics is remarkable for its social scope and penetration. For example, on issues relating to data, law and ethics Microsoft has established a theme within its research arm, Microsoft Research, but also makes gifts to universities and think tanks, sponsors conferences such as the Fairness, Accountability and Transparency in Computer Science series, and offers project sponsorship and individual fellowships for scholars. Google's reach is similar, as is Facebook's, creating a web of funding that touches a substantial proportion of the public intellectuals critical of the power and reach of big tech.

This is perhaps not so surprising considering that one of the challenges of applied data ethics is creating a process that has both moral substance and traction at the operational level. A long list of data ethics principles and codes can be found on the websites of tech firms, civil society organisations and government authorities, but principles lack traction on daily behaviour. If employees are required to 'do the right thing'[10], or to 'be fair'[11], very different ideas of 'right' or 'fair' may come into play.[12] Conversely, if a precise taxonomy of harms is produced and operationalised into guidelines, this potentially creates the feeling that employees may do anything that is not on the list.

In the commercial sphere, negotiating this tension is made more difficult by the fact that 'data ethics' is relatively rarely practiced by ethicists and instead tends to become a flexible and general approach to 'doing no evil', unstructured by the apparatus of ethical reflection built up over thousands of years of philosophical tradition. This approach lends itself to relativism, the belief that nothing is inherently right or wrong, and to a situation where ethical reflection is bounded by the moral norms of the environment in which it is practiced. Where the environment in question is the data technology sector, the task of ethical reflection tends to be framed in terms of making it possible for data to flow within market structures – an approach which constitutes an attempt at capture by industry of the starting point for ethical reflection.

One instance of this capture was publicly surfaced in the debate over specific boundaries and no-go areas for AI, in relation to the European Union's economic strategy for the technology over the coming decade. Rapporteur Thomas Metzinger described in his testimony to the European Parliament how after the European Commission's High Level Expert Group worked for several months to establish 'non-negotiable red lines' in relation to the use of AI, 'industry [participants in the expert group] said the word 'red lines' cannot be in this document any more, at any point [...] and the words 'non-negotiable have to be out of this document.'[13]

This need for flexibility can lead to a situation where instead of a process of reflection guided by a core set of philosophical principles, and where the outcome is decided by that reflection, the outcome is already decided at the start and then ethical reflection is shaped to provide a route to it. As Hannah Couchman of Liberty notes, 'the problem with data ethics is it does mean something different to everyone'[14]. This process can also give rise to 'a checklist approach to ethics', according to Javier Ruiz, Policy Director at Open Rights Group in the UK (hereafter 'ORG'), where 'as long as you can tick all these boxes, you can be sure that what you are doing is ethical'[15].

It is possible to distinguish (at least) two main currents in the emerging field of data ethics. One might be described as a micro-ethical approach which asks how the individual should approach their work with data in research or practice. This approach is the basis for guidelines and codes, and for much of the work of consultants and external advisors working with firms on their ethical profile.[16] Accenture, for example, frames 'universal principles' based in biomedical ethics.[17] These endorse the fundamental principles of research ethics: beneficence, respect for persons and justice, and which focus largely on the individual researcher as responsible for his or her own ethical behaviour. They do not point at the organisational level in terms of ethical duty, but instead (quoting the Association of Computing Machinery (ACM)'s guidance) warn that an individual data scientist has a responsibility to warn their organisation if it is using data science unethically overall.

Ethics codes tend to incorporate requirements for legal compliance (citing privacy, informed consent, security and data ownership), again targeted at the individual. This creates a paradox where individuals may be doing ethical and compliant work for a company that is, in the larger context of its business model, using their work to violate rights. One example of this is the justifications provided by both those employed at Cambridge Analytica and at Global Science Research, the two organisations that collaborated to make Facebook user data available for political microtargeting of US voters in the 2016 presidential election. Each claimed to have been doing their own work with due regard for research ethics, privacy and compliance, while also unwittingly collaborating in actions which were overall unethical

9   Hasselbalch and Tranberg (n 8) 11.

10 Kate Conger, 'Google Removes "Don't Be Evil" Clause From Its Code of Conduct' (*Gizmodo*, 2018) https://gizmodo.com/google-removes-nearly-all-mentions-of-dont-be-evil-from-1826153393 (last accessed 1 April 2020).

11 Monetary Authority of Singapore, 'Principles to Promote Fairness, Ethics, Accountability and Transparency (FEAT) in the Use of Artificial Intelligence and Data Analytics in Singapore's Financial Sector' (Monetary Authority of Singapore 2019) https://www.mas.gov.sg/publications/monographs-or-information-paper/2018/feat (last accessed 1 April 2020).

12 See e.g. Keyes, O., Hutson, J., & Durbin, M., A Mulching Proposal: Analysing and Improving an Algorithmic System for Turning the Elderly into High-Nutrient Slurry. (2019) *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems - CHI EA '19, 1–11.* https://doi.org/10.1145/3290607.3310433 on how a formalised idea of fairness could be employed for entirely ethically impermissible on how a formalised idea of fairness could be employed for entirely ethically impermissible purposes.

13 Thomas Metzinger, 'Dialogue Seminar on Artificial Intelligence: Ethical Concerns; European Parliament' (2019) https://www.europarl.europa.eu/streaming/?event=20190319-1500-SPECIAL-SEMINAR1&start=2019-03-19T15:44:53Z&end=2019-03-19T15:56:00Z&language=en (last accessed 1 April 2020).

14 Interview with Hannah Couchman, Advocacy and Policy Officer at Liberty, 1 June 2018.

15 Interview with Javier Ruiz, Policy Director at Open Rights Group, 22 June 2018.

16 Luke Stark and Anna Lauren Hoffmann, 'Data Is the New What? PopularMetaphors & Professional Ethics in Emerging Data Culture', 2 May 2019 *Journal of Cultural Analytics.*

17 Accenture (n 2).

in their outcomes.[18] As Wagner points out, corporations' actions may simultaneously be in line with their ethics statement but in conflict with the law on a more general level, leading to a situation where firms simultaneously act both in accordance with ethical guidelines and illegally.[19] He draws on an example of this reported by Powles and Hodson[20], where Google DeepMind processed UK patients' data without a legal basis based on the claim that DeepMind was 'an ethical company developing ethical products'[21].

The second current of ethical thinking that has surfaced in relation to the use of private-sector data technology is a more macro-ethical one that asks how such technologies should be governed, how we should think of their implications across space and time, and what boundaries should be set in relation to their use. This other level of ethical inquiry incorporates a political view on data, and does not always refer to itself as ethical reflection. This work takes place mainly within academia but aims to impact the ways in which data technologies are developed and applied. Examples include the work of Floridi et al. regarding 'Onlife' and its implications for society[22], and the research conducted under the Virt-EU project[23], which includes topics such as how (digital) 'things shape values' and how accountability for data technologies' application should operate. This strand of work also takes in the notion of social justice[24] in relation to data technologies' use and governance.

These two perspectives come into conflict around the tension explored above, where structural market realities limit the space for ethical behaviour. This tension has surfaced in the form of employee resistance, including the 'Tech Won't Build It' movement, where workers at the largest technology firms registered their unwillingness to develop technology that would support human rights violations by US immigration and border enforcement[25] and link technology ethics to labour rights and to the #metoo movement, as occurred with the Google Walkout where tens of thousands of the firm's employees demonstrated over workers' rights at the firm.[26]

The tension is also manifested in the separation observable in the field between the search for guidelines (imagined as a static, durable set of principles to resolve individual-level dilemmas), and the search for more dynamic, flexible processes of reflection and policy-building which are relevant on the collective level and which can provide leverage against damaging corporate practices. Pasquale criticises this formalisation of ethical reflection, where 'firms assume that the demand for accountability must be translated in some way into computer science, statistics, or managerialist frameworks, where concerns can be assuaged by a tweak of a formula or the collection of more data'[27]. Dynamic reflection on ethics is risky for a corporate sponsor. It opens up the possibility that experts may disagree with each other, or worse still, may come to a consensus that the company is wrong. Citing the use of guidelines, however, is a weak response to public criticism and does not remedy reputational damage with immediate activity signifying the potential for change.

These micro and macro approaches tend toward different streams of thinking on ethics. The micro-ethics approach draws on deontological frameworks in terms of discussing duty toward research subjects, as framed in the US Common Rule and bioethics in general, and by doing so offers principles and duties to shape the choices of individuals working with data (rather than, for instance, setting out an explicitly utilitarian requirement that they personally balance costs and benefits). When framed in regard to data science this stream of thinking usually starts from an acknowledgement of the human right to privacy and the related responsibility to practice confidentiality when handling data. Ethics codes aimed at corporate activity, however, do not offer an account of what to do when a firm's business model brings law and ethics into conflict.[28] Nor do they address the complex political questions raised by principles of transparency, accountability or fairness, namely what their operationalisation should achieve and for whom. Instead commercial data ethics might be seen as a kind of branding activity, using discourses shaped to appeal to the corporate client, such as 'competitive advantage'[29]. This commercial ethics does not posit a process that could fundamentally change the course or focus of an organisation's dealings, but instead promises to shape existing activities in accordance with ethical principles. In line with this appeal to the corporate survival instinct, it is often framed as a longer term strategic necessity for foreseeing legal challenges and harms that might lead to customer churn through reputation damage, and a shorter term tactical one for avoiding regulatory action when things go wrong. This branded data ethics also draws strongly on utilitarianism[30] in its claim that negative consequences of data science applications can be predicted and pre-empted through compliance with standard principles. Javier Ruiz of ORG identifies this approach as a 'utilitarian aspect which is also quite problematic because it allows you to justify pretty much everything'[31].

This commercial brand of data ethics is based in the liberal individual model of the individual rights claimant and does not easily take into account notions such as group interests in privacy in response to invisible algorithmic groupings[32], or the collective origins and downstream effects of much data processed today, particularly in

18 Carole Cadwalladr, '"I Made Steve Bannon's Psychological Warfare Tool": Meet the Data War Whistleblower' (theguardian.com, 17 March 2018), 2018. Available at https://www.theguardian.com/news/2018/mar/17/data-war-whistleblower-christopher-wylie-faceook-nix-bannon-trump (last accessed 1 April 2020).

19 Ben Wagner, 'Ethics as an Escape from Regulation: From "ethics-Washing" to Ethics-Shopping?' in Emre Bayamlioglu and others (eds), Being Profiled, Cogitas Ergo Sum (Amsterdam University Press 2018).

20 Julia Powles and Hal Hodson, H., 'Google DeepMind and healthcare in an age of algorithms' (2017) Health and Technology, 7(4), 351–367. https://doi.org/10.1007/s12553-017-0179-1.

21 Wagner (n 19) 84.

22 Luciano Floridi, 'The Onlife Manifesto: Being Human in a Hyperconnected Era' (2015).

23 https://virteuproject.eu/ (last accessed 1 April 2020).

24 Lina Dencik, Arne Hintz and Jonathan Cable, 'Towards Data Justice? The Ambiguity of Anti-Surveillance Resistance in Political Activism' (2016) 3 Big Data & Society 1; Linnet Taylor, What Is Data Justice? The Case for Connecting Digital Rights and Freedoms Globally (June 26, 2017). Available at SSRN https://dx.doi.org/10.2139/ssrn.2918779.

25 Science for the People, 'Solidarity Letter: Tech Won't Build It!' (25 September 2018) https://scienceforthepeople.org/2018/09/25/solidarity-letter-tech-wont-build-it/ (last accessed 1 April 2020).

26 Mar Hicks, 'The Long History behind the Google Walkout' (The Verge, 9 November 2018) https://www.theverge.com/2018/11/9/18078664/google-walkout-history-tech-strikes-labor-organizing accessed 16 February 2020.

27 Frank Pasquale, Odd numbers: Algorithms alone can't meaningfully hold other algorithms accountable. (Real Life, 20 August 2018) https://reallife-mag.com/odd-numbers/

28 Wagner (n 19).

29 Hasselbalch and Tranberg (n 8).

30 Linnet Taylor, 'The Ethics of Big Data as a Public Good: Which Public? Whose Good?' (2016) 374 Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences 20160126.

31 Interview with Javier Ruiz, Policy Director at Open Rights Group, 22 June 2018.

32 Linnet Taylor, Luciano Floridi and Bart van der Sloot, Group privacy: New challenges of data technologies (Berlin etc: Springer International Publishing, 2017).

machine learning models.[33] Following from the individual nature of its responsibilisation and the claims it can answer, it also relies, like data protection, on the idea that data can be anonymised and that it is rendered harmless by doing so. This focus on compliance and on individual responsibility has the effect of making a strong claim for voluntary self-regulation, and allowing (commercial) data science to proceed with business as usual.

This also suggests that the concern of data ethics is with data that is personally identifiable. Yet in both the fields of law and social justice concern is emerging around the notion that data not attached to a personal identity should not be subject to ethical or legal consideration. As Purtova demonstrates, many forms of data usually considered non-personal may in fact come within the bounds of data protection.[34] One salient example is the case, discussed at a 2018 data protection conference[35], of an AI application on a production line where the system assessed the average speed at which workers performed a particular task, and which then resulted in those judged below average losing their jobs. In this case, at the point where the data affected workers negatively it is judged to have become personal data, and therefore to trigger obligations under the GDPR for the firm in question.

The influence of data protection's individual- and identifiability-focused starting point on data ethics becomes problematic in relation to the main objective of avoiding harm because it permits the data handler to stop at compliance rather than demanding consideration of the public interest. Moreover it demands a clear picture of the consequences of data use, whereas those practicing data science are usually doing so remotely, without a clear idea of the context or the people implicated. A cost-benefit analysis is an accessible form of reasoning for data scientists trained in exact science disciplines, and one that they are comfortable with as a test. Drawing on experiences of teaching data ethics to economics and business students in a university context,[36] each time a group was presented with different framings for ethical reflection and asked to indicate which they used in their own work, they universally indicated consequentialism, and in a majority of cases argued for this to the exclusion of other modes of reasoning.

2.1   Deflecting and repositioning regulation and governance

Floridi, in his review of the misuse of ethical review processes, foregrounds the dual aims of distracting people from what is going wrong, and masking or not changing behaviour that should be changed.[37] In line with this, one main observable characteristic of commercially-targeted data ethics guidelines and principles is that they tend to emerge at moments where reputational damage is occurring and regulatory attempts to change or limit firms' business models are a possibility[38]. Google established, then rapidly disbanded, an

AI Ethics Council in 2019 around the same time that employees had protested its work developing AI for weapons systems;[39] Dutch bank ING claimed to have established a 'data ethics council' after a series of highly publicised missteps on customer data reuse[40]. Facebook established an Ethics Working Group in 2016 after several instances where its use of data did not match up with its users' expectations[41], later to be disbanded when the Cambridge Analytica scandal forced the company to justify its actions in political fora. Ethics remained a tool for managing the company's position with regard to regulation, however: interviewed in 2018, Norberto Andrade, Facebook's Privacy and Public Policy Manager, explained that 'ethics is becoming an important platform for legal discussions'[42].

Yet establishing ethics for such discussion may also be part of serving various strategic ends for firms as ORG's Javier Ruiz outlined:

> at the moment a lot of the data ethics debate is really about how do we avoid regulation. It's about saying this is too complex, regulation cannot capture it, we cannot just tell people what to do because we don't really know the detail. Everything is moving too fast so the best thing we can do is to try to give people some more general criteria to allow them to make decisions as best as they can. And also by bringing all these ethical discussions, we can generate trust because if you put the word ethics on something, you automatically make a mental connection with trust and goodness.[43]

The philosopher Thomas Metzinger, serving as rapporteur to the European Commission-convened High Level Group on Artificial Intelligence (2019), noted that industry members of the group had come to the process with a very different motivation from the academic members. Such debates, he said, represent an important tactical weapon for industry:

> You organise and cultivate ethical debates because you want to delay, postpone, avoid or deter people from policymaking or regulation. That is actually the major goal of the industry, to do everything to avoid concrete, enforceable law. For instance, Facebook and Amazon, they like it if we have long ethical debates in Europe, because the longer we have these debates, the longer they have before we can enforce law.[44]

If regulation is something to be avoided in high-income regions such as the EU and US, it is also something to be negotiated and repositioned in regions where the data economy is less regulated. In commercial and research activities conducted in relation to low- and middle-income countries, firms may actively seek a form of trans-

33 Metcalf and Crawford (n 6).

34 Nadezhda Purtova, 'The law of everything. Broad concept of personal data and future of EU data protection law' (2018) *Law, Innovation and Technology*, 10:1, 40-81, https://doi.org/10.1080/17579961.2018.1452176.

35 Computers, Privacy and Data Protection (CPDP) conference, Brussels, January 24-26 2018, panel with Peter Hustinx, European Data Protection Supervisor.

36 Observations based on ten academic courses given in the Netherlands in association with Tilburg University, ranging from bachelors' to professional executive level, between 2016 and 2019.

37 Luciano Floridi, 'Translating Principles into Practices of Digital Ethics: Five Risks of Being Unethical' (2019) *Philosophy & Technology*, 32(2), 185–193, 188 https://doi.org/10.1007/s13347-019-00354-x

38 See also Metcalf and Crawford (n 6).

39 Google's AI ethics council was disbanded due to controversy over the appointment of a member from the politically conservative Heritage Foundation, and resulting employee pushback over this appointment (see, e.g., *BBC News*, 'Google's Ethics Board Shut Down' May 4, 2019. Available at https://www.bbc.com/news/technology-47825833 (last accessed 12 April 2020).

40 ING.com, 'Data Ethics' https://www.ing.com/Sustainability/Our-Stance/Data-ethics.htm (accessed 24 June 2019).

41 Anna Lauren Hoffmann, 'Facebook Has a New Process for Discussing Ethics. But Is It Ethical?' *The Guardian* (17 June 2016) https://www.theguardian.com/technology/2016/jun/17/facebook-ethics-but-is-it-ethical (last accessed 1 April 2020).

42 Interviewed 21 May 2018

43 Interview with Javier Ruiz, Policy Director at Open Rights Group, 22 June 2018.

44 https://www.europarl.europa.eu/streaming/?event=20190319-1500-SPECIAL-SEMINAR1&start=2019-03-19T15:44:53Z&end=2019-03-19T15:56:00Z&language=en

parency to authorities through processes of data ethics in an effort to demonstrate that they are not behaving irresponsibly in countries where they hold a licence from the government to do business. When commercial data is extracted from populations where data is un- or under-regulated, as occurs in the fields of international development and humanitarian work[45], reputational risk and contractual repercussions become an issue for multinational firms. These firms can be observed to be using ethics as a basis for their operations where, for example, data protection law or a constitutional right to privacy are missing in a particular national context. In a good scenario, industry incorporates local representatives in its boundary-setting process, as Orange Telecom did when it established an ethical advisory board for its 'Data for Development' challenge in Senegal.[46] In a less good scenario, institutions establish their own boundaries for these environments. This can be problematic when those institutions also enjoy legal immunity with relation to their use of data, such as UN bodies.

The relationship between data protection and data ethics is a tangled one precisely because one deals with what can be pinned down and demanded of those handling data, and the other with what should be. In practice, what Floridi terms 'ethics shopping'[47] is common, with data protection and ethics principles being cherry-picked in the search to retrofit guidelines to behaviour. The risk of this is that firms may frame compliance with data protection law as a complete ethical approach to data and thus miss other important subjects of ethical reflection. Examples would be a concern with only personal data, or the idea that once consent has been acquired from the subject no further problems are possible. It also does not help where legal systems diverge: as Zara Rahman of the Engine Room points out, 'The things that are legal in certain countries are outrageously not ethical'[48].

2.2   De-politicising data's politics

The ethics initiatives observable at big tech firms can also be seen as strategic public relations efforts which allow firms to make public statements about their values without framing it as advertising. For example, statements about ethics are a safe space in which to discuss the fact that technology is not neutral and firms' applications have social and political impacts. Andrade, for example, describes the Facebook review process explicitly in terms of the firm's aim to create social and behavioural change: the firm's aim with ethics, he says, is 'to create ethically responsible outcomes for people on our platform and for society. To empower them to make ethically sound decisions on our mission to bring the world together. It's not a neutral statement, or mission'[49].

Where these political implications and effects have a destabilising internal impact, an ethical review or discussion process can provide scaffolding for resolving disputes and defusing tensions, thus preserving the internal status quo that allows firms to do business. Palantir, the US data analytics giant, is one example of this. The company has come under public criticism for, among other things, accepting core funding from the CIA[50], supporting the Trump

regime's effort to separate children of undocumented immigrants from theirfamilies[51], and avoiding public scrutiny when providing potentially discriminatory urban policing systems.[52] Palantir started to publicise its ethical credentials in 2012 when it established a 'Civil Liberties Board' staffed by leading privacy scholars from the US and EU[53]. The company also established a 'privacy and civil liberties engineering team' which offers ethical guidance to employees. Courtney Bowman, co-director of the team, explains that the purpose is to help employees reconcile progressive political views with the work Palantir does:

> Most of the institutions we draw from in terms of CS [computer science] hires are bastions of more left-leaning political views – Stanford, Berkeley, Harvard, MIT, CalTech. The majority of employees come from a general leaning of real interest and concern about the fate of Western liberal democracies and the importance of not undermining and eroding those institutions, so I don't think they would feel comfortable working at a company with the reputation... [...] there's a disconnect between the way Palantir is represented in the media and my experience of working on these issues. [So the ethics process means] that we can get these candidates who otherwise would be unwilling to engage with us. They can see it's not us privacy-washing or paying lip service, there's a real credible effort on the ground.[54]

In setting up its ethics process, Palantir was ahead of the game. Over the 2010's almost all the technology giants experienced employee pushback on a level that threatened their public image. Microsoft employees protested their firm's work with the US border authority at the start of the Trump administration's family separation initiative in 2018[55]; the same year Google experienced a rebellion over providing AI to a Pentagon weapons program, and the year before Silicon Valley employees had protested the Trump administration's banning of travel from certain Muslim-majority countries.[56] Employee unrest also occurred at Facebook when Joel Kaplan, Facebook's vice president for global public policy, sat behind Brett Kavanaugh at the congressional hearing where he was interrogated over accusations of sexual assault.[57] Like Palantir, by 2019 Google and Facebook had both set up expert-led ethics advisory processes, while Microsoft so far has not.

45 Linnet Taylor and Dennis Broeders, 'In the Name of Development: Power, Profit and the Datafication of the Global South' (2015) 64 *Geoforum* 229.

46 Taylor (n 30).

47 'the malpractice of choosing, adapting, or revising ... ethical principles, guidelines, codes, frameworks, or other similar standards (especially but not only in the ethics of AI), from a variety of available offers, in order to retrofit some pre-existing behaviours', Floridi (n 38) 186.

48 Interview with Zara Rahman, Deputy Director of Engine Room, 14 June 2018.

49 Interview with Norberto Andrade, Privacy and Public Policy Manager for Facebook, 21 May 2018

50 Andy Greenberg, 'How A "Deviant" Philosopher Built Palantir, A CIA-Fund-

ed Data-Mining Juggernaut' (*Forbes*, 2013) https://www.forbes.com/sites/andygreenberg/2013/08/14/agent-of-intelligence-how-a-deviant-philosopher-built-palantir-a-cia-funded-data-mining-juggernaut/ (last accessed 1 April 2020).

51 Mijente.net, Who's Behind ICE? The tech and data companies fueling deportations (mijente.net, 23 October 2018) https://mijente.net/2018/10/whos-behind-ice-the-tech-companies-fueling-deportations/ (last accessed 1 April 2020).

52 Ali Winston, 'Palantir Has Secretly Been Using New Orleans to Test Its Predictive Policing Technology' (*The Verge*, 27 February 2018) https://www.theverge.com/2018/2/27/17054740/palantir-predictive-policing-tool-new-orleans-nopd (last accessed 1 April 2020).

53 Palantir.com, 'Announcing the Palantir Council on Privacy and Civil Liberties' (*Palantir*, 2012) https://palantir.com/2012/11/announcing-the-palantir-council-on-privacy-and-civil-liberties (last accessed 1 April 2020).

54 Courtney Bowman, director, privacy and civil liberties engineering team, Palantir. Interviewed 11 October 2018

55 Sheera Frenkel, 'Microsoft Employees Protest Work With ICE, as Tech Industry Mobilizes Over Immigration , *The New York Times* (19 June 2018) https://www.nytimes.com/2018/06/19/technology/tech-companies-immigration-border.html (accessed 21 June 2019).

56 Kenneth P. Vogel, 'New America, a Google-Funded Think Tank, Faces Backlash for Firing a Google Critic', *New York Times* (1 September 2017) https://www.nytimes.com/2017/09/01/us/politics/anne-marie-slaughter-new-america-google.html (last accessed 1 April 2020).

57 New York Times, 'Rifts Break Open at Facebook Over Kavanaugh Hearing', 4 October 2018, https://www.nytimes.com/2018/10/04/technology/facebook-kavanaugh-nomination-kaplan.html (accessed 21 June 2019).

Instead the company claims to focus on business ethics, corporate social responsibility and 'integrity and governance'[58].

Aside from internal ethics processes, firms also use external engagement on ethics-related issues, apparently to support their ethical branding and neutralise protest. Technology giants sponsor academic research, fund think tanks and sponsor both conferences and specific sessions in the domain of law, human rights and privacy studies. In terms of conference support, Palantir, Google and Facebook are commonly found on the list of sponsors of major law and privacy conferences including the Amsterdam Privacy Conference and the Privacy Law Scholars Conference. This process establishes tech companies as a highly visible presence where regulation or the politics of technology are being discussed. For instance, Facebook announced in early 2019 that it would sponsor an AI ethics centre within the Technical University of Munich, run by Professor of Business Ethics Christoph Luetge[59], previously a member of Facebook's 2016-17 ethics review group. Microsoft Research in the US has served as a research hub for many scholars doing critical work on privacy and rights; Google extensively sponsors institutes and academic research projects in the US and EU, as well as independent research projects. The firm received public criticism when it de-funded a research group at the New America Foundation after its lead researcher praised the EU's fining of Google for antitrust violations.[60] Internal criticism led to the dropping of Palantir as a long-time sponsor of the Privacy Law Scholars Conference after the program committee raised objections to its sponsorship[61].

This external engagement has been called 'ethics-washing'[62] where it deflects from actual violations of rights or norms in their everyday activities. It may also, however, represent pre-emptive action in response to growing pressure on firms to engage with public criticism of their work. MariaRosaria Taddeo, a philosopher and ethicist of technology at the Oxford Internet Institute, makes this connection:

> We may see ethics more outside academia because we are starting to see the consequences of company behaviour. Even if it's not for goodwill they will have to deal with ethics. It's easier to stay with compliance but it will be hard, and maybe not safe for committees not to go beyond compliance and seek for ethics.[63]

The aim of this mix of strategies seems to be instrumental: used strategically to preserve the status quo, an ethics advisory process can act to de-politicise highly sensitive concerns around rights and public values by changing the discourse (for example shifting attention from the legitimacy of a particular intervention to privacy compliance), and thus allow contracts to go forward while paying attention to employees' and the public's concerns. Asked if the scholars on Palantir's Civil Liberties Board, or its own internal privacy and civil liberties team, could veto any of the company's activities, Bowman answers,

'I wouldn't characterise it as an explicit veto.' He describes the latter team as being established 'so you can achieve furthering the mission of sovereign nations or organisations in a way that is privacy protective and sensitive to social concerns'[64].

MIT's 'Moral Machine' project illustrates how the rhetoric of ethics can serve to shape the future along particular paths. The researchers asked people around the world to respond to the 'trolley problem' – a classic thought experiment where the subject is asked to decide how to direct an out-of-control vehicle heading for a group of people, but which could be diverted by a lever to a track where it would hit just one person instead.[65] The problem offers different variants (for instance, would you divert the trolley if the one person on the other track was a child? Would you feel different about hitting old people? Overweight people?). The problem is designed to highlight differences in ethical frameworks and ways of thinking. Instead of a trolley, however, MIT frames the problem around a self-driving car. This choice has several potential effects: the existence of self-driving cars becomes normalised as an everyday problem; public anxiety is allayed by the sense that ethical issues are being addressed and thus policymakers' options for allowing such cars into the road are widened; people can be reassured that the governance of this new technology is taking their opinion into account,[66] and they may feel some resulting ownership of the policy decisions that are made to allow such cars into public space. MIT's choice of focus, as an institution working to develop new technologies, is strategic. Created in 2016, at a time when self-driving cars were starting to appear (and malfunction) on roads in the US, the Moral Machine project, though framed as academic research, can also be seen as a pre-emptive political and regulatory play: a statement that automated vehicles are an inevitability.

2.3   Data ethics as a route to technical standardisation

One positive view on data ethics is that of its emergent concerns and responses as the basis for guidance for the field. Silkie Carlo, director of Big Brother Watch, a UK organisation that advocates for a human rights approach to developing technology, describes data ethics as 'a guiding way of thinking about how the law should be shaped', but also 'of growing importance when we come to design new frameworks. For example, if we need to develop, which we probably do, a framework for dealing with artificial intelligence, then clearly some ethical background is going to be absolutely vital'[67].

On the technical level, we might similarly see data ethics as a form of standard-setting, where the local development of principles and guidelines can create opportunities for discussion and training that then may become institutionally embedded into practice, and reflected back to the field through inter-firm collaborations.[68] The

58 Microsoft, 'Microsoft Code of Conduct | Ethics & Compliance' https://www.microsoft.com/en-us/legal/compliance/default.aspx (accessed 21 June 2019).

59 Deutsche Welle (n 3).

60 Vogel (n 56).

61 Lizette Chapman, 'Palantir Dropped by Berkeley Privacy Conference After Complaints' Bloomberg (5 June 2019) https://www.bloomberg.com/news/articles/2019-06-05/palantir-dropped-by-berkeley-privacy-conference-after-complaints (last accessed 1 April 2020).

62 Elettra Bietti, 'From Ethics Washing to Ethics Bashing: A View on Tech Ethics from within Moral Philosophy', *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency* (2020); Wagner (n 19).

63 Mariarosaria Taddeo, Research Fellow and Deputy Director, Digital Ethics Lab, Oxford Internet Institute, interviewed 20 April 2018

64 Courtney Bowman, director, privacy and civil liberties engineering team, Palantir. Interviewed 11 October 2018

65 MIT Media Lab, 'Moral Machine' (*Moral Machine*, 2016) https://moralmachine.mit.edu (accessed 19 June 2019).

66 The author of the project writes that one main justification for the work is 'to uncover [people's] biases and know when to anticipate them in order to plan regulations that achieve public acceptance', and later adds that 'a platform to promote public discussion about the ethics of machines [...] to provide one input to policy makers and regulators, highlighting the factors that may raise public concern.' Edmond Awad, 'Moral Machine: Perception of Moral Judgment Made by Machines' (Massachusetts Institute of Technology 2017, MA Thesis) 63.

67 Interview with Silkie Carlo, Director of Big Brother Watch, 26 June 2018.

68 AF Winfield and M Jirotka, 'Ethical Governance Is Essential to Building Trust in Robotics and Artificial Intelligence Systems' (2018) 376 *Phil. Trans.*

potential disadvantage of this approach, however, is that to succeed companies must determine for themselves what is good or right without routing through public discussion or governance processes. This relies heavily on their being able to engage in ethical reflection without being influenced by profit motives, shareholder demands or pressure of competition, and furthermore on a race to the top where ethical principles and practice spread between companies. Instead the current state of play in the technology field involves separate ethical ecosystems, each formed in the image of a company's own business model and each with different standards for what is acceptable.

As well as using ethical thinking to shape new requirements and standards, Norberto Andrade of Facebook describes Facebook's 2017-18 review process as also trying to standardise ethical thinking across the company's different product development teams:

> We were having discussions with product managers and engineers that were ethical. They weren't named that way but were debating ethical questions. I wanted to standardise the ethics discussion around all the products we were developing, and I wanted to do an ethics discussion without intimidating people.[69]

A high-profile example of this is the various governmental and private-sector discussions around ethics for artificial intelligence.[70] This standard-setting process can also involve confirmation and scaffolding of the company's business model. Javier Ruiz from ORG explains how ethics can help make a business model more acceptable:

> [P]art of the problem is they say they are going to carry on business as usual, [...] you're having to use ethics [...] as almost a harmonisation exercise at the end. It's like we're going to do this and we're going to build a nuclear missile system and then at the end, you're going to bring ethics to see how do you minimise so we're [...] going to hit as far away from a school as possible.[71]

In this vein, Palantir's ethics statement[72] emphasises privacy by design, keeping humans in decision-making loops where AI is used, making systems accessible to oversight and not engaging in solutionism (using technology to 'solve' problems where it is inappropriate). These are all credible principles rooted in various approaches to technology and data ethics. None of these, however, addresses the higher-level problem of whether it is ethically permissible to engage with a maleficent system or process, which is the main criticism which has been levelled at Palantir over time.[73] Palantir's website, for example, emphasises ensuring the effective implementation of 'rigorous privacy policies' in the provision of analytic systems for policing. The privacy problem, however, has not been central to debates on the ethics of data-driven policing. Social justice issues including discrimination, racial and economic inequality and issues of using probabilistic analysis in relation to decisions that affect people's freedom and civil rights have been more prominent.[74] Hannah Couchman, Advo-

cacy and Policy Officer at civil rights organisation Liberty, cited this problem of different levels of ethical concern: 'Liberty as an organisation is hesitant, in some senses, to talk about what we need to do to make [a particular technological solution] safe when essentially, we fundamentally object to what's going on'[75].

A micro-ethics of data often points away from the political questions. An individual worker or a group within a technology company may be following the company's ethical code or guidelines, designing for privacy, practicing data minimisation, and generally working on their own level for the betterment of humanity. But if the company as a whole is engaged in providing software for autonomous weapons systems, supporting discriminatory law enforcement, or helping to jail children and separate them from their parents, it is not hard to see how a focus on micro-level privacy and ethics, however necessary, could pull focus from higher-level ethical problems.

Javier Ruiz (ORG) surfaces this tension between data ethics as an instrument for integrating new technological applications into society and data ethics as philosophical inquiry - part of a larger ethics of building a good society. He asks:

> How do you build common values in diverse societies and how do you do it in a way that doesn't mean that you become reactionary, or automatically conservative, where you freeze those values and they can't evolve? The premise of data ethics, it's almost like it sits on top of huge ethical challenges [...] you cannot just tackle data ethics in isolation without having a broader discussion.[76]

An optimistic vision of the theory of change involved in corporate ethics processes might identify Google DeepMind Health's ethics committee as an example of one which had a greater degree of freedom and scope than the classic problem-oriented or guidelines-based processes. Julian Huppert, who was appointed chair of the committee when it was formed, explained that as far as the committee could tell, their brief was 'largely to hold [Mustafa Suleyman, CEO of DeepMind Health] and the organisation to account and to push them in the right directions.' The committee members were under no confidentiality agreements, and could hire external researchers to do investigations or analyses. The committee did publicly express concern about the Google subsidiary's ability to keep Alphabet, Google's parent company, from using health data gathered by DeepMind Health for profit when DeepMind Health was absorbed into Google in 2018[77], moving the analysis of NHS patient data one step closer to the for-profit functions of the company. In 2018, possibly a victim of its own success, the ethics committee was disbanded.

The overall business model of informational capitalism - data extraction and marketing - is itself an ethical minefield and often seen as undemocratic and exploitative.[78] Ethics potentially allows for higher-level questions such as whether people should be treated as a means to an end. These considerations can inform questions such

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69 Interview with Norberto Andrade, Privacy and Public Policy Manager for Facebook, 21 May 2018

70 Luciano Floridi, J. Cowls, M. Beltrametti, R. Chatila, P. Chazerand, V. Dignum, C. Luetge, R. Madelin, U. Pagallo, F. Rossi, B. Schafer, P. Valcke, E. Vayena, 'AI4People---An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations' (2018) 28 *Minds and Machines* 689.

71 Interviewed 22 June 2018.

72 Palantir, 'Privacy and Civil Liberties Engineering' (2019) https://www.palantir.com/pcl/ (accessed 5 April 2019).

73 Mijente.net (n 51).

74 J. Angwin, J. Larson, S. Mattu, & L. Kirchner, L., Machine Bias. (ProPublica,

23 May 2016). https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing; W. Dieterich, C. Mendoza, & T. Brennan. COMPAS Risk Scales: Demonstrating Accuracy Equity and Predictive Parity, (8 July 2016) Northpointe inc.

75 Interview with Hannah Couchman, Advocacy and Policy Officer at Liberty, 1 June 2018.

76 Interviewed 22 June 2018.

77 Sam Shead, 'DeepMind Is Handing DeepMind Health Over To Google' Forbes (13 November 2018) https://www.forbes.com/sites/samshead/2018/11/13/deepmind-is-handing-over-deepmind-health-to-google/#c03e21e2d551 (last accessed 1 April 2020).

78 Shoshana Zuboff, *The Age of Surveillance Capitalism The Fight for a Human Future at the New Frontier of Power* (Profile 2019).

as whether it matters if informed consent is only based on partial disclosure, or whether we should define behavioural data as a fundamental component of people's identity or an asset to be traded (and if both, as we do currently, what this means for rules and boundaries). Industry ethics codes and review processes, based on the empirical research conducted for this paper, are not designed to address these questions, nor do they take account of employee unease with exploitative labour practices such as Facebook's use of low-paid workers in lower-income countries to vet content for violence and sexual abuse[79]. The latter is evidenced by the fact that during Facebook's 2016-17 ethics review process the company's labour practices were marked as out of scope.

3.   Towards an ethical data ethics

There are good reasons why the notion of ethics in relation to digital data has been subject to corporate capture. We need an ethics of the digital because commercially produced data is becoming the bedrock of many economies around the world. AI, based on huge amounts of data, is forecast to generate 13 trillion dollars in economic activity by 2030, primarily for OECD countries.[80] Data technologies also increasingly play an important role in how people form and exercise their identities, on both the group and the individual levels. Data ethics is a thriving and well-funded field of inquiry within academia and beyond that seeks to inform how data should be used in society for the public good. However, it is exactly this demand that offers opportunities for capture. As Floridi points out just claiming to be engaging in data ethics in no way guarantees that any ethical reflection is happening.[81]

If we address data ethics as a discourse, separately from its existence as a subject of study and a process of reflection, we can see that discourse doing particular work in society. First, an ethical process that focuses on reducing harm from particular technologies, for example autonomous vehicles, also has its own politics. Centring autonomous vehicles sidelines the politics of the car industry, and by extension urban development and industrial policy. While we are deciding how many people autonomous cars can ethically kill, we are not looking at the larger ethical question about whether we should be aiming for a world of cars at all. Similarly if a social media company mandates its workers follow ethical guidelines when they build applications or moderate content, this may serve as a way of distracting attention from the larger problem of an extractive business model.

If an ethics process is used strategically to justify an unjust business model, or if it takes place without consideration of the underlying assumptions about society and justice, then the process is cosmetic. Metzinger's criticism of the EU's High-Level Group on AI takes this view: if the possibility of delineating meaningful boundaries for technology – something the advocates of corporate data ethics interviewed for this paper claim is its function – is off the table, then so is an important part of the task of ethics. At this point, as Metzinger demonstrated by going public with his criticism, politics becomes instrumental in establishing a meaningful space for ethical reflection. This dynamic means that without acquiring traction through an accompanying consideration of politics, much of 'data ethics' may be

reduced to selecting new wallpaper for a building that is on fire.

If we wish to promote an approach to the commercial use of data technologies that takes social justice as well as legal compliance into account, then integrating data ethics into business models becomes the central problem that anyone working on this problem academically or commercially must confront. This is also the task of law, but many of the problems highlighted in this paper (including the support of unjust government policy and the development of technologies that have a high likelihood of resulting in rights violations) can be characterised, as Wagner argues, as not illegal but nevertheless unjust.[82] This suggests that ethics needs to concern itself explicitly with not only what constitutes the public good, but the dynamics and power relations in place that shape the processes of such assertions. A data ethics process separate from the decision-making core of a company signals that ethics is an add-on, something that must not come into conflict with the bottom line. Defining ethical reflection as a separate process to the everyday business of the company also runs the risk of demanding too little from management and employees: perhaps the question we should be asking is not how companies should integrate ethics processes into their work, but why those ethics processes need to be integrated in the first place. Adding in a discourse of data ethics to the corporate mission may also, ironically, absolve companies from interrogation about their business models. If another sector with implications for public safety and wellbeing such as airlines or civil engineering, began setting up public-facing ethics review boards, we might take this as a cue to ask whether the planes we fly on and the bridges we walk over were safe.

The activists interviewed for this research suggest that there are several possible ways in which data ethics might facilitate change in corporate practice. Regarding public understanding and behaviour, one is a 'moment of truth'-type strategy[83], where discussions about ethics help to clarify that a problem exists, and the public starts to reject technologies that have been shown to have abusive business models or effects. Routes to change might include smaller technology developers (if ethics really does become 'a new competitive advantage'), a rise in ethical consumption amongst the general public, and finally, the creation of governmental initiatives on data ethics which shape law and regulation. This mechanism is clearly the one envisaged by the German national data ethics commission, whose mission is to create 'suggestions for possible legislation'[84]. Christiane Woopen, the commission's chair, asked:

> What are the alternatives to considering ethics as a basis for regulation? Ethics is often captured but our commission looks at ethics as a basis for regulation, for setting rules. Can you have a different yardstick in a democratic society than ethical and fundamental values?[85]

This is not true everywhere. Despite recommendations from its parlia-

79 Joshua Brustein, 'Facebook Grappling With Employee Anger Over Moderator Conditions' Bloomberg (25 February 2019) https://www.bloomberg.com/news/articles/2019-02-25/facebook-grappling-with-employee-anger-over-moderator-conditions (last accessed 1 April 2020).

80 Bhaskar Chakravorti, Ajay Bhalla and Ravi Shankar Chaturvedi, 'Which Countries Are Leading the Data Economy?' (2019) Harvard Business Review https://hbr.org/2019/01/which-countries-are-leading-the-data-economy (last accessed 1 April 2020).

81 Floridi (n 37).

82 Wagner (n 19).

83 Ian (Gus) Hosein, 'A Research Note on Capturing Technology: Toward Moments of Interest' (2003) 110 IFIP Advances in Information and Communication Technology 133; Esther Görnemann, 'Digital Privacy Moments of Truth: A Concept of Moral Indignation over Personal Data Usage' (unpublished 2018).

84 German Data Ethics Commission, 'Data Ethics Commission' (Federal Ministry of the Interior, Building and Community, 2018) http://www.bmi.bund.de/EN/topics/it-internet-policy/data-ethics-commission/data-ethics-commission.html;jsessionid=29BF9E2D3283A4EDAD9BB756BE0089F5.2_cid295?nn=9385466 (accessed 24 June 2019).

85 Christiane Woopen, closing statement. German Data Ethics Commission open meeting, 9 May 2019, German Ministry of the Interior.

mentary committee[86], the UK's 'Council of Data Ethics' was not created as a regulatory body but as an advisory one instead (named the Centre for Data Ethics and Innovation), bearing out the committee's evaluation that the government was taking a pragmatic pro-business perspective at the expense of protecting individuals from negative impacts. Pasquale[87] sees this privileging of the business perspective as risky because it separates academia from policy. Under these conditions, he says, 'it is easy for academics to give up on trying to influence government policy and seek changes directly from corporate leaders.' This then creates a risk of 'translating one's work into a way of advancing overall corporate goals [...] Such corporate goals may help burnish scholars' reputations at first, but eventually they need to boost the bottom line.'

4.   Conclusion

We have made the case that, as well as a branding exercise, commercial processes of data ethics are one forum where the responsibilities of firms toward the public – and therefore what firms may be held accountable for – are negotiated. If this is true, and if we wish to develop a response to corporate (mis)uses of data ethics, we might begin by reframing the question to include other relevant perspectives on what is ethical. These might include a rights-based perspective that focuses on profiles and inferences as well as personal data[88]; approaches to averting harm that go beyond personal identification[89], and an ethics of algorithms[90]. For instance, moving from an individual to a collective anchoring for ethics, as suggested by work on group privacy[91], would suggest direct engagement with impacted communities and social groups, and creating a diverse set of fora where different opinions about what data and uses matter can be heard. This engagement situates data ethics in a social and economic justice framework, where datafication is not a revolution that is drastically changing the structural power and political economy of modern society, but an extension of conditions that have resulted in grievances and injustices towards historically marginalised and politically constructed targets.[92] Similarly, the social stratifications of different (data) classes are an expression of concentration of power and related to a wider trend of privatization and deregulation, along with a shift in decision-making away from the public realm. This perspective is in line with that of Gangadharan and Niklas, who advocate '"see[ing] through" technology, acknowledging its connection to larger systems of institutionalized oppression'[93].

Commercial data ethics processes have multiple functions. They can serve as a political strategy to avoid governmental regulation in favour of self-regulation and to deflect attention from unjust business models, but they are also used pragmatically to manage internal and external expectations. As such, they also serve a purpose in relation to

governance, as a claim by corporations about their legitimacy as custodians of the public's data. All of these functions are of importance to technology firms, but none of these bear a clear relation to genuine ethical reflection, which has the essential characteristic of taking place before action is taken, rather than during or afterwards, and in a context where there is some freedom to choose one's actions. Where the path is already set by the company's business model, this freedom is missing: the underlying purpose of data ethics becomes to justify the path and mitigate, rather than avoid, harm, while cultivating trust amongst those affected by the technology in question. If we can better interrogate companies' ethical claims, we may be able to change the demands we make of those companies. Rather than reducing net harm, we could frame harm as unacceptable. Rather than weighing how many people automated cars may kill in comparison to conventional ones, we might engage in a different debate about the kind of world we wish to live in, and the kinds of technology that would help build that world. Finally, rather than aiming to evoke public trust in technology-sector business models as they currently exist, we might move instead towards enforcing greater trustworthiness through regulation and enforcement, and shaping business models in line with the public interest. Moving from a bounded and instrumental data ethics to a more expansive ethics of the digital that takes in the broader social context and aims for justice seems a necessary first step.

86 Commons Science and Technology Committee (n 7) 36.
87 Pasquale (n 27).
88 Sandra Wachter and Brent Mittelstadt, 'A Right to Reasonable Inferences: Re-Thinking Data Protection Law in the Age of Big Data and AI' (LawArXiv 2018) preprint https://osf.io/mu2kf accessed 18 June 2019.
89 Purtova (n 34); Taylor, Floridi and van der Sloot (n 32).
90 Louise Amoore, Doubt and the algorithm: On the partial accounts of machine learning. (2019) *Theory, Culture & Society*, 36(6), 147-169.
91 Taylor, Floridi and van der Sloot (n 32).
92 Lina Dencik,Fieke Jansen and Philippa Metcalfe, (2018) 'A conceptual framework for approaching social justice in an age of datafication. datajusticeproject.net. Available at: https://datajusticeproject.net/2018/08/30/a-conceptual-framework-for-approaching-social-justice-in-an-age-of-datafication/
93 Seeta Peña Gangadharan and Jedrzej Niklas, Decentering technology in discourse on discrimination. Information, (2019) *Communication and Society*, 22 (7). 882-899, 883 https://doi.org/10.1080/1369118X.2019.1593484