ARTIFICIAL INTELLIGENCE AND DATA GOVERNANCE

A Business and Human Rights Approach

This article applies a business and human rights approach to systemic human rights concerns arising from the emergence of artificial intelligence ("AI") and the data economy. It assesses the ability of the business and human rights framework – based on the State's duty to protect human rights, businesses' responsibility to respect and right to remedy – to address and regulate the data-driven business model rather than specific business-related violations of human rights law.

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I. Introduction

1 Artificial intelligence ("AI") is an umbrella term for a set of technologies that improves the ability of machines to do things requiring intelligence.[1] It involves "different processes and technologies leading to an incremental substitution of human actions by automated data processing".[2] AI, or machine-learning, combines large amounts of data with iterative processing and algorithms to identify relationships between inputs and outputs, allowing the software to identify patterns, learn from them, and make predictions.[3]

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1 *Preparing for the Future of Artificial Intelligence* (Office of Science and Technology Policy, October 2016); Stuart Russell & Peter Norvig, *Artificial Intelligence: A Modern Approach* (Prentice Hall, 1st Ed, 1995); Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1.

2 "Freedom of opinion and expression: mandate of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression" (A/HRC/34/L.27, 27 February–24 March 2017); Alexander Kriebitz & Christoph Lütge, "Artificial Intelligence and Human Rights: A Business Ethical Assessment" (2020) *Business and Human Rights Journal* 84 at 85.

3 Frank Pasquale, *The Black Box Society: The Secret Algorithms That Control Money and Information* (Harvard University Press, 2015) at pp 3–14; Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework

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2 Offering greater efficiency, reduced costs, and new insights into current and predicted behaviour or trends, the use of AI is increasingly central to many areas of public and private life – from justice and healthcare to financial services and logistics. For example, in the UK, investment in AI has grown from £245m in 2015 to £1.3bn in 2019.[4] Large-scale data-driven technological change is occurring at an unprecedented pace, which the global response to COVID-19 has only accelerated. AI has become such a prevalent feature of modern life, that it is not always clear when, and how, it is being used.[5] Kai-Fu Lee, author of *AI 2041*, explains how AI is at an inflection point and urges us to wake up to its radiant possibilities as well as to the existential threats it poses to life as we know it.[6]

3 The rise of AI based on machine learning, data driven technology and the ability to collect, analyse and apply large amounts of data has become the basis of new business models. Large scale investment into research and development means that AI and data-related technologies will develop in ways not yet imagined. This new economy will have profound effects on the universal access to human rights. There is considerable research on specific threats: for example, surveillance, the right to privacy, freedom of expression, freedom of thought, as well as algorithmic discrimination in public and private decision making have been the subject of academic research and advocacy.[7] This article analyses the overall emerging data-driven business model and its applications through a business and human rights regulatory approach.

4 The international community has agreed upon a framework of guiding principles to prevent, respect and remedy violations of human rights related to business conduct. The UN's guiding principles on

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for Algorithmic Accountability" (2019) 68 ICQL 309; Eyal Benvenisti, "Upholding Democracy Amid the Challenges of New Technology: What Role for the Law of Global Governance?" (2018) 29(1) EJIL 9; Gheorghe Tecuci, "Artificial Intelligence" (2012) 4(2) *Wiley Interdisciplinary Reviews: Computational Statistics* 168.

4 "UK Tech for a Changing World – Tech Nation Report 2020" *Tech Nation* (17 March 2020) <https://technation.io/news/tech-nation-report-2020/#:~:text=The%20Tech%20Nation%20Report%20has,economic%20growth%20within%20the%20sector.> (accessed 18 August 2022).

5 Paul Taylor, "Insanely Complicated, Hopelessly Inadequate" (2021) 43(2) LRB.

6 Kai-Fu Lee, *AI 2041: Ten Visions for Our Future* (Currency, 2021).

7 Mathias Risse, "Human Rights and Artificial Intelligence: An Urgently Needed Agenda" (2019) 41(1) *Human Rights Quarterly* 1; Valerio De Stefano, "Negotiating the Algorithm: Automation, Artificial Intelligence and Labour Protection" (2019) 41(1) *Comparative Labor Law and Policy Journal* 1; Evelyn Mary, "The Future of Freedom of Expression Online" (2018) 17 *Duke Law and Technology Review* 26; Susie Alegre, "Rethinking Freedom of Thought for the 21st Century" (2017) 3 *European Human Rights Law Review* 221.

business and human rights ("UNGPs"), endorsed in 2011, consolidates international law relevant to: (a) the State's duty to protect human rights; (b) the responsibility of businesses to respect human rights; and (c) the right of victims to remedies.[8] AI is the first truly transformative technology to develop following the drafting of the UNGPs.[9] It is emerging at a time that it is widely understood that businesses have a responsibility to respect human rights, and that human rights due diligence ("HRDD") is the key to doing so. Yet, it remains unclear if and how this can be applied to the emerging AI business model. This article explores the ability of the business and human rights framework to assess the core of the emerging system, rather than violations associated with it. It assesses the "protect, respect and remedy" framework's ability to address and regulate the AI-based and data-driven business model.

5 Part I examines the business and human rights issues raised using AI. It examines a future where advanced technologies could affect the ability of States to protect rights through regulation, companies to respect them and of people to access remedies. Business and human rights standards are framed into three components: (a) the State's duty to protect human rights; (b) the responsibility of businesses to respect; and (c) the victims' right to remedies. Part II applies those three components to the regulation of AI-based and data-driven business. Are States willing and able to fulfil their duty under this framework to regulate this new business model? Should reliance on corporate codes and self-regulation and ethics be questioned and instead, should a mandatory HRDD process be established? What does business and human rights remedy mean in the data-driven economy? This article argues for the establishment of mandatory algorithm impact assessment based on the HRDD concept developed by the business and human rights framework. It focuses on social media companies such as Google and Facebook (now Meta) as they best represent a business model based on data exploitation.

II. Artificial intelligence and business and human rights

6 "Contrary to the more fantastic predictions for AI in the popular press", a Stanford University 2016 paper found "no cause for concern that AI is an imminent threat to humankind".[10] The study expects that

8 *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework* (UN Human Rights Council, A/HRC/17/31, 2011).

9 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 52–57.

10 *Artificial Intelligence and Life in 2030: One Hundred Year Study on Artificial Intelligence* (Stanford University, September 2016) at p 4.

"increasingly useful applications of AI, with potentially profound positive impacts on our society and economy are likely to emerge between now and 2030".[11] The report describes how "AI is already changing our daily lives, almost entirely in ways that improve human health, safety, and productivity".[12] This Part argues, instead, that AI is already having a number of negative impacts on human rights. AI tools are currently deployed without a full understanding of their impact on people and society, and in the absence of effective domestic or international regulatory frameworks. AI systems are being deployed rapidly across areas of considerable human rights significance – in healthcare, education, employment and criminal justice – without appropriate safeguards or accountability in place. Several studies are starting to identify the potential impact of AI on human rights in areas ranging from the right to privacy, freedom of expression and freedom of thought, security and fair trial, to inequality, discrimination, the future of work, climate change, electoral fairness and democracy.[13]

7 Algorithms are typically used to support or inform decision making, including with respect to decisions that directly involve human rights.[14] Systems of social protection and assistance are increasingly driven by digital data and technologies that are used to automate, predict, identify and detect. Optimists about the potential of AI to automate public decision making point to the possibilities of making decision making more predictable and efficient.[15] However, from a human rights perspective, concerns about the use of algorithms in decision making are

11 *Artificial Intelligence and Life in 2030: One Hundred Year Study on Artificial Intelligence* (Stanford University, September 2016) at p 4.

12 *Artificial Intelligence and Life in 2030: One Hundred Year Study on Artificial Intelligence* (Stanford University, September 2016) at p 5.

13 *Algorithms and Human Rights: Study on the Human Rights Dimensions of Automated Data Processing Techniques and Possible Regulatory Implications* (Council of Europe, 2018); *Report of the Office of the UN High Commissioner for Human Rights on The Right to Privacy in the Digital Age* (UN Human Rights Council, A/HRC/39/29, 2018); Mark Latonero, *Governing Artificial Intelligence: Upholding Human Rights and Dignity* (Data & Society, 2018); *Human Rights in the Age of Artificial Intelligence* (Access Now, 2018); *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression on A Human Rights Approach to Platform Content Regulation*, (UN Human Rights Council, A/HRC/38/35, 2018); *Report of the Independent Expert on the Enjoyment of All Human Rights by Older Persons on Robots and Rights: The Impact of Automation on the Human Rights of Older Persons* (UN Human Rights Council, A/HRC/36/48, 2017); *White Paper: How to Prevent Discriminatory Outcomes in Machine Learning* (World Economic Forum, 2018).

14 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 317.

15 Richard Susskind, *Tomorrow's Lawyers: An Introduction to your Future* (Oxford University Press, 2017).

growing. Critics warn of the potential of new forms of social control, surveillance, discrimination, arbitrariness, freedom of expression, lack of transparency and inequality.[16]

8 Scholars have raised similar concerns about automation's effect on civil rights, such as the rights to social security and to fair trial.[17] A book by Amal Clooney and Philippa Webb, for example, discusses the challenges to the right to fair trial posed by the use of AI in criminal proceedings.[18] Steven Feldstein explains:[19]

> A growing number of states are deploying advanced AI surveillance tools to monitor, track, and surveil citizens to accomplish a range of policy objectives – some lawful, others that violate human rights, and many of which fall into a murky middle ground.

9 The field of "algorithmic injustice" is growing.[20] The 2019 *AI Now* report found that AI is "widening inequality, placing information and control in the hands of those who already have power and further disempowering those who do not".[21] The 2020 *AI Barometer* study identified a number of concerns, including the risks of algorithmic bias, a lack of "explainability" in algorithmic decision making, and the failure of those operating technology to seek meaningful consent from people to collect, use and share their data.[22] The Law Society of England and Wales also concluded that "an uncritical and unexplained use of algorithms has serious implications for fundamental human rights and the integrity of the justice system".[23] In 2019, Philip Alston, the UN Special Rapporteur

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16 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 310; Frank Pasquale, "A Rule of Persons, Not Machines: The Limits of Legal Automation" (2019) 87 Geo Wash LR 1; Tania Sourdin, "Judge v Robot? Artificial Intelligence and Judicial Decision-Making" (2018) 41(4) UNSW LJ 1114.

17 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019) at pp 10 and 12; Malcolm Langford, "How will Artificial Intelligence Affect International Law? Taming the Digital Leviathan: Automated Decision-Making and International Human Rights" (2020) 114 *American Journal of International Law* 141.

18 Amal Clooney and Philippa Webb, *The Right to Fair Trial in International Law* (Oxford University Press, 2021).

19 Steven Feldstein, *The Global Expansion of AI Surveillance* (Carnegie Endowment for International Peace, 2019).

20 Ruha Benjamin, *Race after Technology: Abolitionist Tools for the New Jim Code* (Polity, 2019); Safiya Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York University Press, 2018).

21 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019) at pp 10 and 12.

22 *AI Barometer Report: June 2020* (UK Centre for Data Ethics and Innovation, 2020).

23 "Algorithm use in the Criminal Justice System" *The Law Society* (4 June 2019) <https://www.lawsociety.org.uk/topics/research/algorithm-use-in-the-criminal-justice-system-report#:~:text=Increasingly%20algorithms%20are%20being%20used,schedule%20for%20police%20officer%20patrols> (accessed 18 August 2022).

on extreme poverty and human rights, announced that the world was "stumbling zombie-like into a digital welfare dystopia".[24]

10 During the COVID-19 pandemic, governments across the globe turned to data-driven interventions to combat the spread of the virus. Key examples included vaccine and test passports and contact tracing apps. Big data and machine learning were also used to understand and predict disease patterns. These data-intensive measures often challenge public trust, with concerns about public and private sharing of sensitive data, discrimination, social coercion and creation of long-term mass surveillance.[25] A report by the Global Data Justice Project argues that the pandemic public health emergency has "enabled a rapid expansion of commercial technological power in areas where public service provision and private-sector business models are not aligned, and in ways that current regulatory frameworks are ill-equipped to deal with".[26]

11 In the area of electoral fairness, the UK House of Lords' Select Committee on democracy and digital technologies argues that "democracy faces a daunting new challenge".[27] Electoral activity is dominated by digital and social media that operate outside the rules that govern electoral politics. Other examples of AI infringing human rights include the use of data without or against the explicit will of customers, the use of AI to monitor the citizens criticising the government, or machine learning tools deployed to detect sexual orientation without a person's consent or knowledge.[28]

12 Other challenges include the environmental harms caused by AI systems' extraction of materials as large-scale AI systems consume enormous amounts of energy.[29] Finally, automation and the use of big

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24 "World Stumbling Zombie-Like into a Digital Welfare Dystopia, Warns UN Human Rights Expert" *United Nations* (17 October 2019); *Report of the Special Rapporteur on Extreme Poverty and Human Rights* (A/74/48037, 2019) at para 8.

25 Irene Pietropaoli, "Part 2: Getting Digital Health Passports Right? Legal, Ethical and Equality Considerations" *British Institute of International and Comparative Law* (1 April 2021) <https://www.biicl.org/blog/23/part-2-getting-digital-health-passports-right-legal-ethical-and-equality-considerations> (accessed 18 August 2022).

26 Joan Lopez Solano *et al*, *Digital Disruption or Crisis Capitalism?* (Global Data Justice Project, May 2022).

27 United Kingdom, House of Lords Select Committee on Democracy and Digital Technologies, *Digital Technology and the Resurrection of Trust* (HL Paper 77, 29 June 2020) at pp 6–7.

28 Alexander Kriebitz & Christoph Lütge, "Artificial Intelligence and Human Rights: A Business Ethical Assessment" (2020) *Business and Human Rights Journal* 84.

29 Kate Crawford & Vladan Joler, "Anatomy of an AI System" *Anatomy of an AI System* (2018) <https://anatomyof.ai/> (accessed 18 August 2022); Gary Cook, *Clicking Clean: Who Is Winning the Race to Build a Green Internet?* (Greenpeace, 2017).

data and AI to manage the workforce raise concerns for work quality in future labour markets – for example, with click-workers labelling individual data points being paid little to nothing.[30] Stephen Hawking referred to AI as potentially the worst event in human history, capable of spelling the end of humankind;[31] in a BBC Radio programme, Stuart Russell warned: "don't design algorithms that can kill humans".[32]

13 The problem behind all such concerns is that AI systems depend on the generation, collection, storage, analysis and use of vast quantities of data and the manipulation of people's behaviour. Such a data-driven business model based on manipulation and advanced by techn companies for profit gains is growing in the absence of regulation.

A. The data-driven business model

14 In *The Age of Surveillance Capitalism*, Shoshana Zuboff describes how internet companies harvest our behaviour online without our consent or understanding and use it to predict, influence and manipulate our decisions.[33] The power of machine learning means that this unintentionally-shared data is used not just to predict our behaviour but increasingly to manipulate it for profit gain, with clear human rights implications.[34] This is driven by technology that is advancing exponentially: formerly unsophisticated data analytics processes have evolved into new techniques extrapolating, inferring and interpreting human action by consolidating a wide range of data points, often submitted by users on a voluntary basis.[35] As Cathy O'Neil explains, "algorithms are opinions

30 Valerio De Stefano, "'Negotiating the Algorithm': Automation, Artificial Intelligence and Labour Protection" (2019) 41(1) *Comparative Labor Law and Policy Journal* 1; Mathias Risse, "Human Rights and Artificial Intelligence: An Urgently Needed Agenda" (2019) 41(1) *Human Rights Quarterly* 1; Christian Fuchs, *Digital Labor and Karl Marx* (Routledge, 2014).

31 Rory Cellan-Jones, "Stephen Hawking Warns Artificial Intelligence Could End Mankind" *BBC* (2 December 2014) <https://www.bbc.com/news/technology-30290540> (accessed 18 August 2022).

32 "The Reith Lectures" *BBC* <https://www.bbc.co.uk/programmes/articles/1N0w5NcK27Tt041LPVLZ51k/reith-lectures-2021-living-with-artificial-intelligence> (accessed 18 August 2022).

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

34 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at p 12.

35 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020).

embedded in codes".[36] The examples below show how companies such as Google and Facebook (now Meta) have mastered this business model.

15 The business model works as follows: Google and Facebook offer services to billions of people without asking them to pay a financial fee; instead, people pay with their personal data; the companies collect and use this data to analyse people, aggregate them into groups, and to make predictions about their interests, characteristics and ultimately behaviour, primarily so they can use these insights to generate advertising revenue.[37] Google's and Facebook's business model, Amnesty International argues:[38]

> … forces people to make a Faustian bargain, whereby they are only able to enjoy their human rights online by submitting to a system predicated on human rights abuse. Firstly, an assault on the right to privacy on an unprecedented scale, and then a series of knock-on effects that pose a serious risk to a range of other rights, from freedom of expression and opinion, to freedom of thought and the right to non-discrimination.

16 Google's and Facebook's platforms rely not only on extracting vast amounts of people's data, but on drawing further insight and information from that data using sophisticated algorithmic systems. This is the key difference between AI systems and other forms of consumer technology: AI systems rely on the collection and analysis of vast amounts of human-generated data. These systems are designed to find the best way to achieve outcomes in the companies' interests, including finely-tuned ad targeting, and behavioural nudges that keep people engaged on the platforms. The business model of all social media and internet companies is to keep people engaged; they offer services that are not free, they are paid for by advertisements. But this is too simplistic; in the words of Jaron Lanier, "it is the gradual, slight, imperceptible change in your own behaviour and perception that is the product … that is the only possible product: changing how you think, what you do, who you are".[39] As the classic saying goes: if you do not pay for the product then you are the product. Users of an AI system are consumers, but they are also resources, as their data is collected and analysed to build a better system, and they provide labour,

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36 *The Social Dilemma* (2020); *Human Rights in the Age of Platforms* (Rikke Frank Jørgensen ed) (Information Policy, 2019).

37 *Surveillance Giants: How the Business Model of Google and Facebook Threatens Human Rights* (Amnesty International, 2019) <https://www.amnesty.org/en/documents/pol30/1404/2019/en/> (accessed 18 August 2022).

38 *Surveillance Giants: How the Business Model of Google and Facebook Threatens Human Rights* (Amnesty International, 2019) <https://www.amnesty.org/en/documents/pol30/1404/2019/en/> (accessed 18 August 2022).

39 *The Social Dilemma* (2020); *Human Rights in the Age of Platforms* (Rikke Frank Jørgensen ed) (Information Policy, 2019).

as they continually perform the service of contributing feedbacks.[40] In the words of Kate Crawford and Vladan Joler:[41]

> In the dynamic of dataset collection through platforms like Facebook, users are feeding and training the neural networks with behavioral data, voice, tagged pictures and videos or medical data. In an era of extractivism, the real value of that data is controlled and exploited by the very few at the top of the pyramid.

17 Every action taken online is carefully recorded and analysed, fed into a system that has no human supervision that is making better and better predictions about what people want and are going to do.[42] Tech companies have three main goals: (a) the engagement goal to drive up usage and keep people on their platforms; (b) the growth goal to keep people coming back and inviting more people; and (c) the advertising goal to make profit from advertisements.[43] All these goals are powered by algorithms. For example, the initial goal for the recommendations sidebar on YouTube was to maximise watch time – as such it created a "filter bubble" to give people more of the same content they were watching, which also gives people only one side of reality and can make them fall into "rabbit holes". This technique has evolved into "deep learning" – AI is able to mimic the human brain with data to create patterns and connections (including connections and patterns that no human could even think of) and recommend new content that people do not yet realise they are interested in.[44]

18 In 2012, Facebook published the results of research showing it could alter the emotional state of users by manipulating their news feeds.[45] In 2016, the idea of altering emotional states through Facebook was brought together with research on psychological profiling linked to Facebook likes in a technique called "behavioural microtargeting", which was reportedly used by the Trump campaign in the US and by the "leave.

40 Kate Crawford & Vladan Joler, "Anatomy of an AI System" *Anatomy of an AI System* (2018) <https://anatomyof.ai/> (accessed 18 August 2022).

41 Kate Crawford & Vladan Joler, "Anatomy of an AI System" *Anatomy of an AI System* (2018) <https://anatomyof.ai/> (accessed 18 August 2022).

42 *The Social Dilemma* (2020).

43 *The Social Dilemma* (2020).

44 "Rabbit Hole" *New York Times* <https://www.nytimes.com/column/rabbit-hole> (accessed 18 August 2022); see also James Bridle, "Something Is Wrong on the Internet" *Medium* (7 November 2017) <https://medium.com/@jamesbridle/something-is-wrong-on-the-internet-c39c471271d2> (accessed 18 August 2022) about YouTube Kids recommendations.

45 Adam DI Kramer, Jamie E Guillory & Jeffrey T Hancock, "Experimental Evidence of Massive Scale Emotional Contagion through Social Networks" (2014) 111(24) PNAS 8788.

EU" campaign in the Brexit referendum in the UK.[46] Tech companies can affect real world behaviour and emotions without triggering the user's awareness. In 2017, Sean Parker, former Facebook president, admitted: "we are exploiting a vulnerability in human psychology".[47]

19 Crawford and Joler explain how complex sets of information-processing layers needed by devices like Alexa to interact with human commands are fed by constant tides: "With each interaction, Alexa is training to hear better, to interpret more precisely, to trigger actions that map to the user's commands more accurately, and to build a more complete model of their preferences, habits and desires."[48] This requires the extraction of non-renewable materials, human labour, and data: "beneath these connections lie … [the] exploitation of human and natural resources, concentrations of corporate and geopolitical power, and continual energy consumption".[49]

20 Zuboff described the way the technology industry has evolved to become a market in "human futures" with our data providing insights into how we think and what we do. However, she explains:[50]

> Ultimately, it has become clear that the most predictive data comes from intervening in our lives to tune and herd our behavior towards the most profitable outcomes. Data scientists describe this as a shift from monitoring to actuation. The idea is not only to know our behavior but also to shape it in ways that can turn predictions into guarantees. It is no longer enough to automate information flows about us; the goal now is to automate us.

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46 Wu Youyou, Michal Kosinski & David Stillwell, "Computer-based Personality Judgments are More Accurate than those Made by Humans" (2015) 112(4) PNAS 1036; Hannes Grassegger & Mikael Krogerus, "The Data That Turned the World Upside Down" *VICE* (28 January 2017) <https://www.vice.com/en/article/mg9vvn/how-our-likes-helped-trump-win> (accessed 18 August 2022); Nicholas Confessore & Danny Hakim, "Data Firm Says 'Secret Sauce' Aided Trump; Many Scoff" *New York Times* (6 March 2017) <https://www.nytimes.com/2017/03/06/us/politics/cambridge-analytica.html> (accessed 18 August 2022).

47 Olivia Solon, "Ex-Facebook President Sean Parker: Site Made to Exploit Human Vulnerability" *The Guardian* (9 November 2017) <https://www.theguardian.com/technology/2017/nov/09/facebook-sean-parker-vulnerability-brain-psychology> (accessed 18 August 2022).

48 Kate Crawford & Vladan Joler, "Anatomy of an AI System" *Anatomy of an AI System* (2018) <https://anatomyof.ai/> (accessed 18 August 2022).

49 Kate Crawford & Vladan Joler, "Anatomy of an AI System" *Anatomy of an AI System* (2018) <https://anatomyof.ai/> (accessed 18 August 2022).

50 Shoshana Zuboff, "It's Not that We've Failed to Rein in Facebook and Google. We've Not Even Tried" *The Guardian* (2 July 2019) <https://www.theguardian.com/commentisfree/2019/jul/02/facebook-google-data-change-our-behaviour-democracy> (accessed 18 August 2022).

21 AI and big data are increasingly used to infer emotional or mental states. They are also used to influence individuals' mental states to change behaviours. These practices are intrinsic to the current consumer data-driven business model of AI. Never had the world seen a power that can reach directly into our private thoughts and influence so effectively. The same algorithms designed to influence consumer choices can be used to manipulate political opinions and voter behaviour, violating the absolute right of freedom of thought.[51] Susie Alegre argues, "any technology designed to manipulate the way we think or feel would not be permissible, irrelevant of the ultimate goal".[52]

22 Surveillance capitalism is, in the words of Zuboff, "a marketplace that trades exclusively in human futures – this market has produced the trillions of dollars that have made the internet companies the richest companies in the history of humanity".[53] This is also a dehumanising process. Esther Leslie compares people to cows: "The pastures of digital dictatorship – crowded conditions, mass surveillance, virtual reality – are already here."[54] Scholars use the term "extractivism" to name the relationship between different forms of extractive operations in contemporary capitalism, which are repeated in the context of the AI industry.[55]

23 Other scholars use phrases such as "data colonialism" to describe how Western tech monopolies, dominating, controlling and influencing social, political and cultural discourse, share common characteristics with traditional colonialism.[56] The concept of "data mining" shows the extent to which the person behind each data point is disregarded – like

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51 Susie Alegre, "Rethinking Freedom of Thought for the 21st Century" (2017) 3 *European Human Rights Law Review* 221 at 228. Freedom of thought is an absolute right enshrined in Art 9 of the European Convention on Human Rights and Art 18 of the International Covenant on Civil and Political Rights.

52 Susie Alegre, "Rethinking Freedom of Thought for the 21st Century" (2017) 3 *European Human Rights Law Review* 221 at 228.

53 Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (Profile Publishers, 2019); *The Social Dilemma* (2020).

54 Esther Leslie, "Are We the Cows of the Future?" *New York Times* (5 January 2021) <https://www.nytimes.com/2021/01/05/opinion/tech-nature-freedom.html> (accessed 18 August 2022).

55 Sandro Mezzadra & Brett Neilson, "On the Multiple Frontiers of Extraction: Excavating Contemporary Capitalism" (2017) 31(2–3) *Cultural Studies* 185.

56 Ulises Ali Mejias & Nick Couldry, "Resistance to the New Data Colonialism Must Start Now" *Al Jazeera* (28 April 2020) <https://www.aljazeera.com/opinions/2020/4/28/resistance-to-the-new-data-colonialism-must-start-now> (accessed 18 August 2022); Michael Kwet, "Digital Colonialism: US Empire and the New Imperialism in the Global South" (2019) 60(4) *Race & Class* 3; Abeba Birhane, "Algorithmic Colonization of Africa" (2020) 17:2 SCRIPTed 389.

colonisers treated humans as raw material.[57] "Algorithmic colonialism, driven by profit maximization, assumes that the human soul, behavior, and action is raw material free for the taking", says Abeba Birhane.[58] As people produce data and their attention can be mined, they become human natural resources.

24 As an example, when in 2015 DeepMind Technologies, a subsidiary of Google, got access to the health records of 1.6 million patients of the UK's Royal Free Hospital, it performed a particular type of extraction – the extraction of knowledge value by corporate AI systems that use public data to generate profit.[59] Hossein Rahnama and Alex Pentland argue that companies that generate any value from personal data will need to change the way they acquire it, share it, protect it and profit from it.[60] The authors suggest that companies cultivate trust with customers, explaining how their data is being used and what is in it for them, and focus on extracting insight, not personally-identifiable information.[61] What this article is missing is the need to ban the trading of personal data. If personal data can be bought and sold, trust, human rights respect and security will not be achieved. Concepts of the value of data are not yet fully understood by the public. Google, Facebook, and other internet companies know very well what value they can unlock from accessing users' data; but the public does not yet contemplate the value of this commodity only they can create. "Without people, there is no data. Without data, there is no AI", says Julia Powles and Hal Hodson.[62]

25 Crawford and Joler conclude: "At this moment in the 21st century, we see a new form of extractivism that is well underway: one

57 Abeba Birhane, "Algorithmic Colonization of Africa" (2020) 17:2 SCRIPTed 389 at 393.

58 Abeba Birhane, "Algorithmic Colonization of Africa" (2020) 17:2 SCRIPTed 389 at 391.

59 Alex Hern, "Royal Free Breached UK Data Law in 1.6m Patient Deal with Google's DeepMind" *The Guardian* (3 June 2017) <https://www.theguardian.com/technology/2017/jul/03/google-deepmind-16m-patient-royal-free-deal-data-protection-act#:~:text=5%20years%20old-,Royal%20Free%20breached%20UK%20data%20law%20in,patient%20deal%20with%20Google's%20DeepMind&text=London's%20Royal%20Free%20hospital%20failed,to%20the%20Information%20Commissioner's%20Office> (accessed 19 August 2022).

60 Hossein Rahnama & Alex Pentland, "The New Rules of Data Privacy" *Harvard Business Review* (25 February 2022) <https://hbr.org/2022/02/the-new-rules-of-data-privacy> (accessed 19 August 2022).

61 Hossein Rahnama & Alex Pentland, "The New Rules of Data Privacy" *Harvard Business Review* (25 February 2022) <https://hbr.org/2022/02/the-new-rules-of-data-privacy> (accessed 19 August 2022).

62 Julia Powles & Hal Hodson, "Google DeepMind and Healthcare in an Age of Algorithms" (2017) 7 *Health and Technology* 351 at 362.

that reaches into the furthest corners of the biosphere and the deepest layers of human cognitive and affective being."[63] Birhane adds:[64]

> As decision-making of social outcomes is handed over to predictive systems developed by profit-driven corporates, not only are we allowing our social concerns to be dictated by corporate incentives, we are also allowing moral questions to be dictated by corporate interest.

26 The erasure of the person behind each data point makes it easy to manipulate behaviour or "digitally nudge" users towards profitable outcomes. As "nudging" mechanisms become the norm for "correcting" individuals' behaviour, those developing predictive models are granted the power to decide what "correct" is.[65] As Brent Harris explains, "a handful of designers, young white guys from California, make designs that have an impact on two billion people, who will have thoughts that they did not intend to have".[66] This phenomenon becomes particularly severe when considering the power imbalance between companies collecting and processing data and the "data subjects".[67] Social media companies' business models have helped concentrate their power.[68] As Zuboff states: "They know everything abouts [sic] us; we know almost nothing about them."[69] This is a core transparency paradox. Powles and Hodson argue:[70]

> Once our data makes its way onto Google-controlled servers, our ability to track that data – to understand how and why decisions are made about us – is at an end. The public's situation is analogous to being interrogated through a one-way mirror: Google can see us, but we cannot see it.

27 This concentrated power goes hand in hand with the human rights impacts of the business model and has created an accountability gap in which it is difficult for governments to hold companies to account,

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63 Kate Crawford & Vladan Joler, "Anatomy of an AI System" *Anatomy of an AI System* (2018) <https://anatomyof.ai/> (accessed 18 August 2022).

64 Abeba Birhane, "Algorithmic Colonization of Africa" (2020) 17:2 SCRIPTed 389 at 393.

65 Abeba Birhane, "Algorithmic Colonization of Africa" (2020) 17:2 SCRIPTed 389 at 397–399.

66 *The Social Dilemma* (2020).

67 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at p 12.

68 *Surveillance Giants: How the Business Model of Google and Facebook Threatens Human Rights* (Amnesty International, 2019) <https://www.amnesty.org/en/documents/pol30/1404/2019/en/> (accessed 18 August 2022).

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

70 Julia Powles & Hal Hodson, "Google DeepMind and Healthcare in an Age of Algorithms" (2017) 7 *Health and Technology* 351 at 360; Frank Pasquale, "A Rule of Persons, Not Machines: The Limits of Legal Automation" (2019) 87 Geo Wash LR 1.

or for people who are affected to access justice.[71] The business and human rights framework may play an increasingly vital role in setting contextual boundaries to this business model.[72]

III. Artificial intelligence and data governance regulation: A business and human rights approach

28 An intensive debate is underway on how to regulate AI. The uncertainties accompanying this technological change pose new questions concerning the design of regulation.[73] What makes AI different from other technologies? Do we even need regulation tailored to AI?[74] Alexander Kriebitz and Christoph Lütge explain:[75]

> The term comparison to human intelligence refers to the output of an action and not to the input or to the process of the decision-making processes in machines. This understanding has an important implication for human rights, as AI – not being an ontological entity – cannot be regarded as an independent actor or potential perpetrator of human rights violations, at least not yet. Instead, human rights compliance that relates to AI solutions remains in the domain of human responsibility and works to bind nation states, companies … using these technologies.

29 As some of AI's processes run automatically without human intervention, they can develop conclusions unforeseen by humans and result in unintended consequences.[76] As such, Kriebitz and Lütge ask, does the deployment of AI "constitute an inherent violation of human rights, thereby justifying a universal prohibition?"[77] Some ethicists reject the use of AI altogether, pointing to an inherent conflict with moral self-determination.[78]

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71 *Surveillance Giants: How the Business Model of Google and Facebook Threatens Human Rights* (Amnesty International, 2019) <https://www.amnesty.org/en/documents/pol30/1404/2019/en/> (accessed 18 August 2022).

72 Mark Latonero, *Governing Artificial Intelligence: Upholding Human Rights and Dignity* (Data & Society, 2018).

73 Anna Beckers & Gunther Teubner, *Three Liability Regimes for Artificial Intelligence: Algorithmic Actants, Hybrids, Crowds* (Bloomsbury, 2022).

74 Alexander Kriebitz & Christoph Lütge, "Artificial Intelligence and Human Rights: A Business Ethical Assessment" (2020) *Business and Human Rights Journal* 84 at 89.

75 Alexander Kriebitz & Christoph Lütge, "Artificial Intelligence and Human Rights: A Business Ethical Assessment" (2020) *Business and Human Rights Journal* 84 at 89.

76 Alexander Kriebitz & Christoph Lütge, "Artificial Intelligence and Human Rights: A Business Ethical Assessment" (2020) *Business and Human Rights Journal* 84 at 89.

77 Alexander Kriebitz & Christoph Lütge, "Artificial Intelligence and Human Rights: A Business Ethical Assessment" (2020) *Business and Human Rights Journal* 84 at 90.

78 IAP Wogu *et al*, "Artificial Intelligence, Alienation and Ontological Problems of Other Minds: A Critical Investigation into the Future of Man and Machines" (2017) *International Conference on Computing Networking and Informatics (ICCNI)* 1;

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30 Initial proposals for addressing AI concerns and achieving "algorithmic accountability" relied on ethical discussions or focused on technical solutions for improving the transparency of algorithmic systems.[79] Given the concerns that ethical and transparency promises are inadequate in the face of accountability gaps, a number of commentators and other actors are starting to recognise the value of examining the challenges around AI from an international human rights law perspective.[80] Alston argues that tech companies operate in an "almost human rights free-zone".[81] In September 2021, the UN High Commissioner for Human Rights Michelle Bachelet called for stricter legal requirements for the use of AI technology as it poses serious risks to human rights and that

"Artificial Intelligence: An Evangelical Statement of Principles" *The Ethics & Religious Liberty Commission of the Southern Baptist Convention* (11 April 2019) <https://erlc.com/resource-library/statements/artificial-intelligence-an-evangelical-statement-of-principles/> (accessed 19 August 2022).

79 Joshua A Kroll *et al*, "Accountable Algorithms" (2017) 165(3) UPaLRev 633; Mike Ananny & Kate Crawford, "Seeing Without Knowing: Limitations of The Transparency Ideal and Its Application to Algorithmic Accountability" (2018) 20(3) *New Media & Society* 973; Danielle Keats Citron & Frank A Pasquale, "The Scored Society: Due Process for Automated Predictions" (2014) 89(1) WashLRev 1; Tal Zarsky, "The Trouble with Algorithmic Decisions: An Analytic Road Map to Examine Efficiency and Fairness in Automated and Opaque Decision Making" (2016) 41(1) *Science, Technology & Human Values* 118; Nicholas Diakopoulos, "Algorithmic Accountability: Journalistic Investigation of Computational Power Structures" (2015) 3(3) *Digital Journalism* 398; Sandra Wachter, Brent Mittelstadt & Chris Russell, "Counterfactual Explanations Without Opening the Black Box: Automated Decisions and the GDPR" (2018) 31(2) *Harvard Journal of Law & Technology* 841.

80 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 324; "Governance with Teeth: How Human Rights Can Strengthen FAT and Ethics Initiatives on Artificial Intelligence" *Article 19* (17 April 2019) <https://www.article19.org/resources/governance-with-teeth-how-human-rights-can-strengthen-fat-and-ethics-initiatives-on-artificial-intelligence/> (accessed 19 August 2022); Christiaan van Veen, "Artificial Intelligence: What's Human Rights Got to Do with It?" *Data & Society* (14 May 2018) <https://points.datasociety.net/artificial-intelligence-whats-human-rights-got-to-do-with-it-4622ec1566d5> (accessed 19 August 2022); Sherif Elsayed-Ali, "Artificial Intelligence and the Future of Human Rights" *Medium* (20 October 2017) <https://medium.com/amnesty-insights/artificial-intelligence-and-the-future-of-human-rights-b58996964df5> (accessed 19 August 2022).

81 *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression on A Human Rights Approach to Platform Content Regulation* (UN Human Rights Council, A/HRC/38/35, 2018).

States should place moratoriums on the sale and use of AI systems until adequate safeguards are put in place.[82] She warned:[83]

> Artificial intelligence can be a force for good, helping societies overcome some of the great challenges of our times. But AI technologies can have negative, even catastrophic, effects if they are used without sufficient regard to how they affect people's human rights.

31 The UN Human Rights Council clarified that human rights considerations must be central to the current and future AI transformation.[84] The European Commission's High-Level Expert Group on Artificial Intelligence stresses:[85]

> We believe in an approach to AI ethics based on the fundamental rights enshrined in the EU Treaties, the EU Charter and international human rights law. Respect for fundamental rights, within a framework of democracy and the rule of law, provides the most promising foundations for identifying abstract ethical principles and values, which can be operationalized in the context of AI.

32 However, a legal codification tailored to the application of AI in the context of human rights has not been articulated yet.[86] According to the 2019 *AI Now* report, a limitation of international human rights law as it relates to AI and algorithmic accountability is enforcement: "human rights law is mainly focused on government actors, so beyond the current lack of enforcement, the question of how it might serve to curb corporate malfeasance remains unanswered".[87] Within international human rights law, however, the business and human rights framework

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82 "Urgent action needed over artificial intelligence risks to human rights" *UN News* (15 September 2021) <https://news.un.org/en/story/2021/09/1099972#:~:text=Urgent%20action%20is%20needed%20as,of%20AI%20technology%20should%20be%E2%80%9D.> (accessed 19 August 2022).

83 "Urgent action needed over artificial intelligence risks to human rights" *UN News* (15 September 2021) <https://news.un.org/en/story/2021/09/1099972#:~:text=Urgent%20action%20is%20needed%20as,of%20AI%20technology%20should%20be%E2%80%9D.> (accessed 19 August 2022).

84 *The Promotion, Protection and Enjoyment of Human Rights on the Internet* (A/HRC/20/L.13, 2012).

85 *Ethics Guidelines for Trustworthy Artificial Intelligence* (European Commission, 2019) at pp 9–11.

86 Alexander Kriebitz & Christoph Lütge, "Artificial Intelligence and Human Rights: A Business Ethical Assessment" (2020) *Business and Human Rights Journal* 84 at 85; Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 313; Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1; *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression on A Human Rights Approach to Platform Content Regulation* (UN Human Rights Council, A/HRC/38/35, 2018).

87 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019) at p 20.

clarifies the responsibilities of States and businesses. While States have direct obligations to protect, respect and fulfil human rights, businesses have a responsibility to respect human rights.[88] This is not a direct obligation under international law but legislative development at the national and regional level are increasingly translating this standard into a mandatory requirement.[89] As such, the business and human rights framework offers a system for the design, development and deployment of AI, and identifies responsibilities for States and businesses to address human rights impacts.[90]

33 As Lorna McGregor explains, this is a framework that is capable of dealing with multiple actors and different forms of responsibility.[91] In particular, in relation to the use of algorithmic decision making, she argues that its complex nature necessitates that accountability proposals be set within a framework taking into account the rights and responsibilities of all relevant actors.[92] Similarly, the Law Society of England and Wales concluded, "[i]t will take everyone, from those in the supply chain to the various agencies and actors using the technology, to build a consensus rooted in the rule of law, which preserves human rights".[93] The value in adopting a business and human rights perspective to addressing the impacts of AI lies in an agreed standard and processes for assessing the impacts of this technology and the responsibility of both governments and companies.[94] The UNGPs provide a range of measures to guide States

88 *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework* (UN Human Rights Council, A/HRC/17/31, 2011) Principle 11; *Promotion and Protection of all Human Rights, Civil, Political, Economic, Social and Cultural Rights including the Right to Development* (UN Human Rights Council, A/HRC/8/5, 2008) at para 3.

89 *Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and Amending Directive (EU) 2019/1937* (European Commission, COM/2022/71, 22 February 2022); Loi Relative Au Devoir de Vigilance des Sociétés Mères et des Enterprises Donneuses d'ordre (1) (No 2017-399 of March 27, 2017) (France); Gesetz über die unternehmerischen "Sorgfaltspflichten zur Vermeidung von Menschenrechtsverletzungen in Lieferketten (Act No 46 of 2021) (Germany) (also known as the German Supply Chain Act 2021); Transparency Act 2019 (LOV-2021-06-18-99) (Norway).

90 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 313.

91 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 311–313.

92 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 311.

93 "Algorithm use in the Criminal Justice System" *The Law Society* (4 June 2019) <https://www.lawsociety.org.uk/topics/research/algorithm-use-in-the-criminal-justice-system-report#:~:text=Increasingly%20algorithms%20are%20being%20used,schedule%20for%20police%20officer%20patrols> (accessed 18 August 2022).

94 Jason Pielemeier, "The Advantages and Limitations of Applying the International Human Rights Framework to Artificial Intelligence" *Data & Society: Points* (6 June

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in the implementation of their obligations to prevent and protect human rights, and businesses to respect human rights.

34 In line with the UNGPs, the duty to protect lies with the government, as formulated under Pillar I, and is incorporated in international law. Companies, as described in pillar II, have the responsibility to respect human rights. Pillar II requires a company to carry out HRDD to identify, prevent, mitigate and account for its human rights impacts. If violations occur, Pillar III clarifies that victims have the right to remedy, which can be provided by judicial means by the State or by non-judicial means. The next three sections analyse the ability of the (a) State's duty to protect; (b) the responsibility of businesses to respect; and (c) access to remedy framework to address human rights concerns posed by the AI-based and data-driven business model.

A The State's duty to protect

35 Under international human rights law, States are required to put in place a framework that prevents human rights violations from taking place, holds those responsible to account, and provides a remedy to victims if their rights have been violated.[95] States are also required to protect individuals from harm by third parties, including business enterprises.[96] They must devise "appropriate steps to prevent, investigate, punish and redress private actors' abuse".[97] Addressing the potential human rights impact caused by the deployment of AI systems is therefore not a voluntary exercise by the State.[98] Governments have an obligation to protect people from human rights abuses by corporations.

36 Under the UNGPs Principle 1, States' obligations to protect against human rights violations requires that they take measure at the domestic level to ensure that human rights are not violated by businesses.

2018) <https://points.datasociety.net/the-advantages-and-limitations-of-applying-the-international-human-rights-framework-to-artificial-291a2dfe1d8a> (accessed 19 August 2022).

95 *General Comment No 31[80]: The Nature of the Legal Obligation Imposed on States Parties to the Covenant* (CCPR/C/21/Rev.1/Add.13, 26 May 2004) at paras 3–8; UN Committee on Economic Social and Cultural Rights, *CESCR General Comment No 3: The Nature of States Parties' Obligations* (E/1991/23, 14 December 1990).

96 *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework* (UN Human Rights Council, A/HRC/17/31, 2011) Principles 1–10.

97 *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework* (UN Human Rights Council, A/HRC/17/31, 2011) Principle 1.

98 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 327.

To fulfil their duty States must regulate companies. In 2019, the UN Office of the High Commissioner for Human Rights ("OHCHR") launched a project on Business and Human Rights in Technology ("B-Tech") to advance the UNGPs in the tech industry.[99] The B-Tech project foundation paper includes the following key principles: (a) the State's duty to protect human rights includes protecting against human rights abuses involving tech companies; (b) States should apply a "smart-mix" of the regulatory and policy measures to protect against human rights harms by tech companies; and (c) States should reflect the UNGPs' normative expectation that companies conduct HRDD related to the impacts of their products and services.[100]

37 The speed of AI development "has far outstripped the pace of innovation in regulatory tools that might be used to govern it".[101] The UK House of Lords' Select Committee on democracy and digital technologies argues that governments have been dilatory in adjusting regulatory regimes to capture new realities posed by tech companies: "The Government must not flinch in the face of the inevitable and powerful lobbying of Big Tech and others that benefit from the current situation."[102]

38 National and regional regulation in the areas of data protection and privacy, also in relation to AI, have started to emerge. Europe has been at the vanguard of regulation for data protection and privacy in the digital sphere with the EU General Data Protection Regulation ("GDPR"). The GDPR as well as the UK Data Protection Act 2018 ("DPA") regulate the collection and use of personal data.[103] Generally, data protection laws

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99 "B-Tech Project" *United Nations Human Rights Office of the United Nations High Commissioner* (2019) <https://www.ohchr.org/en/business-and-human-rights/b-tech-project> (accessed 19 August 2022).

100 *Bridging Governance Gaps in the Age of Technology: Key Characteristics of the State Duty to Protect* (United Nations Human Rights Office of the High Commissioner, May 2021).

101 Matthew Guihot, Anne F Matthew & Nicolas P Suzor, "Nudging Robots: Innovative Solutions to Regulate Artificial Intelligence" Vanderbilt Journal of Entertainment & Technology Law" (2017) 20(2) *Vanderbilt Journal of Entertainment & Technology Law* 385.

102 United Kingdom, House of Lords Select Committee on Democracy and Digital Technologies, *Digital Technology and the Resurrection of Trust* (HL Paper 77, 29 June 2020) at pp 6–7.

103 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) ("GDPR") Arts 13 and 14 on right to be informed of the existence of solely automated decision-making producing legal or similarly significant effects; Art 15 on the right of access to information on the existence of solely automated decision-making producing legal or similarly

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do not directly reference AI or machine learning but the GDPR and the DPA do have a focus on large scale automated processing of personal data, and several provisions specifically refer to the use of profiling and automated decision making. This means it applies to the use of AI to provide a prediction or recommendation about someone.[104] Where AI uses personal data – *eg*, through the use of personal data to train, test or deploy an AI system – it falls within the scope of this legislation.[105] The GDPR requires some human involvement in automated decision making and encourages the development of "a right to an explanation".[106] The Preamble recognises that: "The processing of personal data should be designed to serve mankind."[107] However, focusing on the data misses the real problem.[108]

39 The business model, not just data, should be the heart of AI regulation. The European Commission's White Paper on Artificial Intelligence focuses on building an "ecosystem of trust" based on European values and the rule of law.[109] Again, the list of potential rights implications misses the essential problem of a business model based on extracting personal data.[110] Regulations so far neglect that fundamental problem with this business model, focusing instead primarily on privacy, data protection, and content. A failure to regulate this business and human

significant effects; Recital 71 provides interpretative guidance on rights related to automated decision-making; Art 21 on the right to object to processing of personal data, specifically including profiling, in certain circumstances.

104 "Legal Framework" *Information Commissioner's Office* <https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/explaining-decisions-made-with-artificial-intelligence/part-1-the-basics-of-explaining-ai/legal-framework> (accessed 19 August 2022).

105 "Legal Framework" *Information Commissioner's Office* <https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/explaining-decisions-made-with-artificial-intelligence/part-1-the-basics-of-explaining-ai/legal-framework> (accessed 19 August 2022).

106 GDPR Art 22 and Recital 71; Bryce Goodman & Seth Flaxman, "European Union Regulations on Algorithmic Decision-Making and a 'Right to Explanation'" (2017) 38(3) *AI Magazine* 50; Sandra Wachter, Brent Mittelstadt & Luciano Floridi, "Why a Right to Explanation of Automated Decision-Making Does Not Exist in the General Data Protection Regulation" (2017) 7(2) *International Data Privacy Law* 76.

107 GDPR para 4.

108 Susie Alegre, "Regulating Around Freedom in the '*forum internum*' (2021) 21 *ERA Forum* 591 at 595–600.

109 *White Paper: On Artificial Intelligence – A European Approach to Excellence and Trust* (European Commission, COM(2020) 65, 19 February 2020).

110 Daniel Aguirre & Susie Alegre, "UN Human Rights Business and Human Rights in Technology Project (B-Tech) Applying the UN Guiding Principles on Business and Human Rights to digital technologies", response to the Draft Scoping Paper for Consultation (unpublished).

rights issue undermines the State's duty to protect rights.[111] No regulation related to AI has addressed the overall human rights implication and specifically the manipulation problem of the business model. As Alegre argues, while regulations have been developed around privacy and data protection in both the public and private sectors, freedom of thought has remained a blind spot in the legal framework: "Unlike privacy and freedom of expression, international human rights law protects our right to freedom of thought in the '*forum internum*' of our minds absolutely."[112]

40 Building on the emergence of data protection approaches, policymakers have begun to develop legal norms and standards to regulate the deployment of AI technologies.[113] These include, for instance, the Montreal Declaration for a Responsible Development of AI, UNESCO's recommendation on the ethics of AI, and more recently the draft UK Online Safety Bill and draft EU AI Act. Some countries have taken a practical approach to AI governance. For example, Singapore has developed guideline metrics for companies to assess the impact of the use of AI in high risk cases such as algorithmic credit scoring.

41 Yet, beside specific regulation around data protection and privacy, non-binding standards, guidance and ethical principles, so far social media and other tech companies have been largely left to self-regulate. In 2013, former Google CEO Eric Schmidt described the online world as "the world's largest ungoverned space".[114] According to Raso:[115]

> It as a promising sign that so many of the private enterprises at the forefront of the AI revolution are recognizing their responsibility to act in a rights-respecting manner. But the private sector cannot do it alone, nor should it: governments have a crucial role to play, both in their capacities as developers and deployers of this technology, but also as the guarantors of human rights under international law.

111 Daniel Aguirre & Susie Alegre, "UN Human Rights Business and Human Rights in Technology Project (B-Tech) Applying the UN Guiding Principles on Business and Human Rights to digital technologies", response to the Draft Scoping Paper for Consultation (unpublished).

112 Susie Alegre, "Rethinking Freedom of Thought for the 21st Century" (2017) 3 EHRLR 221 at 223, 226–227 and 231–232.

113 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019) at p 31.

114 Eric Schmidt & Jared Cohen, *The New Digital Age: Reshaping the Future of People, Nations, and Business* (Knopf, 2013) at p 3.

115 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 58.

42 Joan Lopez Solano argues that to address tech firms' strategies and power accumulation, it is necessary to go beyond arguments based on privacy alone; a more holistic approach is needed:[116]

> … although privacy is a key point of leverage on technological power, it has been used strategically by companies to distract from broader problems of domination … we need to understand and contest the far-reaching ramifications of the increased presence and power of tech firms in all areas of public and private life.

43 The international business and human rights framework detailing the obligations of States and responsibilities of companies can provide such holistic approach. Research by the University of Essex recommends a human rights-based approach to algorithmic accountability, arguing that States and companies engaged in any part of the algorithmic life cycle should embed a human rights-based approach.[117] It clarifies that the international human rights law framework complements existing mechanisms for algorithmic accountability such as data protection but offers a more comprehensive approach for algorithmic accountability assessing the full scope of impact.[118]

44 Big tech companies do influence human rights in ways traditionally reserved for governments but operate outside the direct reach of human rights law.[119] As Rikke Frank Jørgensen points out, in most national contexts, business human rights responsibilities are governed by soft-law frameworks and voluntary measures defined and enforced by the industry itself.[120] States are failing to regulate tech companies and recognise the data-driven business model as a business and human rights issue despite their commitment to the UNGPs.

45 Most rights violations linked to business activities deploying AI systems are attributable to States' failures to regulate the marketplace. The underdevelopment of the regime of AI regulation makes it difficult even for businesses engaged in HRDD to know what they should do when

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116 Joan Lopez Solano et al, Digital Disruption or Crisis Capitalism? (Global Data Justice Project, May 2022).

117 "Algorithmic Accountability" *University of Essex* <https://www.essex.ac.uk/research-projects/human-rights-big-data-and-technology/algorithmic-accountability> (accessed 19 August 2022).

118 "Algorithmic Accountability" *University of Essex* <https://www.essex.ac.uk/research-projects/human-rights-big-data-and-technology/algorithmic-accountability> (accessed 19 August 2022).

119 *Human Rights in the Age of Platforms* (Rikke Frank Jørgensen ed) (Information Policy, 2019) at p 163.

120 *Human Rights in the Age of Platforms* (Rikke Frank Jørgensen ed) (Information Policy, 2019) at p 163.

their systems adversely impact human rights.[121] While domestic and regional laws have developed around privacy and data protection in both the public and private sectors, an overall human rights impact assessment through HRDD process as detailed in the UNGPs is not considered in the legal framework around AI. Governments should therefore regulate business activities deploying AI through mandatory HRDD laws.

46 Two core human rights law obligations are relevant when States consider how to approach the regulation of AI. First, the obligation to respect, requiring States to refrain from action resulting in human rights violations; second, the protection of people against rights interferences. Daragh Murray argues that these features require States to conduct a pre-deployment impact assessment.[122] New York University's AI Now Institute has also developed a framework for public sector entities in the US for "algorithmic impact assessments" prior to purchasing or deploying automated decision systems.[123] Governments should establish similar impact assessment requirements for businesses deploying AI systems based on the principle of HRDD. The EU should strengthen the HRDD processes provided by the GDPR to fully cover the challenges posed by AI to data subjects.[124]

47 The European Commission's Expert Group on AI concluded that "ensuring trustworthy AI is not about ticking boxes, but about continuously identifying and implementing requirements, evaluating solutions, ensuring improved outcomes throughout the AI system's lifecycle, and involving stakeholders in this".[125] This is a similar approach to HRDD as detailed in the UNGPs. In 2019, the Council of Europe Commissioner for Human Rights released guidance on how to prevent or mitigate negative impacts of AI systems on human rights.[126] The recommendations are addressed at Member States, but the principles concern anyone who significantly influences the development, implementation or effects of an AI system: "AI developed in the private sector should be held to the same standards as that developed in the

121 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 56.

122 Daragh Murray, "How Will Artificial Intelligence Affect International Law? Using Human Rights Law to Inform States' Decisions to Deploy AI" (2020) *American Journal of International Law* 158 at 159.

123 Dillon Reisman *et al*, *Algorithmic Impact Assessments: A Practical Framework for Public Agency Accountability* (AI Now Institute, April 2018).

124 Human Rights International Corner, "Position Paper on Artificial Intelligence and the United Nations Guiding Principles on Business and Human Rights, Shaping the Debate at EU Level" (2020) (unpublished).

125 *The Promotion, Protection and Enjoyment of Human Rights on the Internet* (A/HRC/20/L.13, 2012) at pp 2–3.

126 *Unboxing AI: 10 Steps to Protect Human Rights* (Council of Europe, 2019).

public sector if and when there is any intention to work with public bodies and public services".[127] The Commissioner recommends Member States to establish a legal framework that sets out a procedure for public authorities to carry out HRIAs on all AI systems that have the potential to interfere with human rights at any stage of the AI system lifecycle.[128] Member States should also require businesses to conduct HRIAs based on the concept of HRDD.

48 So far, the HRDD framework provided by the UNGPs – and currently being translated into mandatory legislation at the EU level and in several European countries – has been overlooked by States in terms of its possible application to AI. A 2022 report of the UN OHCHR on the practical application of the UNGPs to the activities of tech companies points out that States' responses to the challenges posed by digital technologies "have tended to be reactive and ad hoc, at times overlooking existing corporate responsibility and accountability frameworks and standards that can provide principled and rights-based responses".[129]

49 HRDD, as detailed in the UNGPs, is the essential first step towards identifying, mitigating and redressing the adverse human rights impacts of AI. Policymakers should take AI impact into account in legislative proposals on corporate HRDD and revisit whether existing protection can still cover emerging AI issues.[130] The UNGPs, and specifically the HRDD process described in Pillar II, should be the basis and the benchmark for the development of an AI that is respectful of all internationally-recognised human rights. In April 2021, the European Commission proposed a Regulation Laying Down Harmonised Rules on Artificial Intelligence, known as the AI Act.[131] This draft Act is the first attempt in the world to set a legal framework for AI technology at a supranational level. However, the draft does not provide standards for States and businesses to prevent and provide effective remedies for human rights abuses committed via the use of AI technology.[132] In February 2022, the European Commission also published a draft directive on mandatory

127 *Unboxing AI: 10 Steps to Protect Human Rights* (Council of Europe, 2019).

128 *Unboxing AI: 10 Steps to Protect Human Rights* (Council of Europe, 2019) at pp 7–8.

129 *The Practical Application of the Guiding Principles on Business and Human Rights to the Activities of Technology Companies: Report of the Office of the United Nations High Commissioner for Human Rights* (A/HRC/50/56, 21 April 2022).

130 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at p 9.

131 *Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts* (COM/2021/206, 4 April 2021).

132 *Comments by the International Commission of Jurists on the proposal for a Regulation of the European Parliament and the Council Laying Down Harmonised Rules on*

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HRDD.[133] These two pieces of regulations need to be linked – the concept of HRDD integrated into the AI Act and the specific AI challenges mentioned in the HRDD Directive.

50 Adopting a business and human rights perspective would allow the proposed EU Act to address the impact of AI on human rights.[134] A step in this direction, Daria Onitiu argues, would be to lay the foundations for a mandatory HRDD obligation within the framework.[135] Based on the UNGPs' HRDD process, AI companies would have to address any "actual and potential" impact of emerging technology. The HRDD process invokes that companies need to be bound by a set of procedures to identify human rights risks, such as a human rights impact assessment ("HRIA").[136] The European Commission has, however, left out the obligation of AI providers and users to conduct HRIAs. The EU should mandate the use of HRIA to be conducted at all stages of the AI lifecycle as a mechanism for evaluating the impacts of AI systems.[137] HRIA as part of a HRDD process can provide an assessment of the potential or actual impacts of a technology, mitigating measures to address potentially harmful outcomes, documentation of impacts to share with stakeholders, and a mechanism to engage with affected communities.[138]

B. Corporate responsibility to respect

51 AI concerns have given rise to calls for fairness, accountability, and transparency. Many view the response in terms of ethics. For example, the Institute of Electrical and Electronics Engineers, the world's

Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts (International Commission of Jurists, 2021) at p 11.

133 *Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and Amending Directive (EU) 2019/1937* (European Commission, COM/2022/71, 22 February 2022).

134 Daria Onitiu, "How a Human Rights Perspective Could Complement the EU's AI Act" *LSE* (31 January 2022) <https://blogs.lse.ac.uk/europpblog/2022/01/31/how-a-human-rights-perspective-could-complement-the-eus-ai-act/> (accessed 19 August 2022).

135 Daria Onitiu, "How a Human Rights Perspective Could Complement the EU's AI Act" LSE (31 January 2022) <https://blogs.lse.ac.uk/europpblog/2022/01/31/how-a-human-rights-perspective-could-complement-the-eus-ai-act/> (accessed 19 August 2022).

136 Daria Onitiu, "How a Human Rights Perspective Could Complement the EU's AI Act" LSE (31 January 2022) <https://blogs.lse.ac.uk/europpblog/2022/01/31/how-a-human-rights-perspective-could-complement-the-eus-ai-act/> (accessed 19 August 2022).

137 *Mandating Human Rights Impacts Assessments in the AI Act* (The European Center for Not-for-Profit Law & Data & Society, 2021).

138 *Mandating Human Rights Impacts Assessments in the AI Act* (The European Center for Not-for-Profit Law & Data & Society, 2021).

largest technical professional body, suggests that "the full benefit of these technologies will be attained only if they are aligned with our defined values and ethical principles".[139] An ethical framework for the development and use of AI became a key focus of the UK Select Committee on AI, which recommended that:[140]

> … a cross-sector ethical code of conduct, or 'AI code', suitable for implementation across public and private sector organisations which are developing or adopting AI, be drawn up and promoted by the Centre for Data Ethics and Innovation … with a degree of urgency … In time, the AI code could provide the basis for statutory regulation, if and when this is determined to be necessary.

52 Since the publication of the Committee's report in 2018, many companies and organisations have produced their own ethical AI codes of conduct. In its 2020 report, the Committee concluded: "Although we welcome this progress, we believe a solely self-regulatory approach to ethical standards risks a lack of uniformity and enforceability."[141] Carly Kind, Director of the Ada Lovelace Institute, told the Committee that "self-regulation and internal ethics processes have not kept up and have not proved to be sufficient to ensure accountability and public trust".[142] She went on to say that the Institute hears "time and time again from members of the public that their trust in technologies is contingent on external oversight of those technologies".[143]

53 Companies and governments are dedicating great efforts to generating AI ethics principles and statements.[144] Over the past few

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139 *Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems* (IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems, 2017).

140 United Kingdom, House of Lords Select Committee on Artificial Intelligence, *AI in the UK: Ready, Willing and Able?* (HL Paper 100, 18 December 2020) at para 420.

141 United Kingdom, House of Lords Liaison Committee, *AI in the UK: No Room for Complacency* (HL Paper 196, 18 December 2020) at para 24.

142 United Kingdom, House of Lords Liaison Committee, *AI in the UK: NoRoom for Complacency* (HL Paper 196, 18 December 2020) at fn 36, whereas Prof Wendy Hall told the Committee, "we have to self-regulate" at para 25, fn 35.

143 United Kingdom, House of Lords Liaison Committee, *AI in the UK: No Room for Complacency* (HL Paper 196, 18 December 2020) at para 25, fn 37.

144 Meredith Whittaker *et al*, *AI Now Report 2018* (AI Now Institute, December 2018); "OECD Principles on Artificial Intelligence" (OECD) <https://www.oecd.org/digital/artificial-intelligence/#:~:text=The%20OECD%20Principles%20on%20Artificial,Council%20Recommendation%20on%20Artificial%20Intelligence.> (accessed 19 August 2022); Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019); Jessica Fjeld *et al*, *Principled Artificial Intelligence: A Map of Ethical and Rights-Based Approaches* (Berkman Klein Center for Internet & Society at Harvard University, 2019); Luciano Floridi & Josh Cowls, "A Unified Framework of Five Principles for AI in Society" *HDSR* (2 July 2019) <https://hdsr.mitpress.mit.edu/pub/l0jsh9d1/release/8> (accessed 19 August 2022); Thilo Hagendorff, "The

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years, a number of public-private initiatives have arisen globally to define values, principles, and standards for the ethical development and deployment of AI. Dozens of "AI ethics" initiatives have published reports describing high-level ethical principles and values. The vast majority of these, however, say little about implementation, accountability and enforcement.[145] Tech companies do not suffer consequences if they violate their ethical principles.[146] Many initiatives, particularly those sponsored by tech companies, have been characterised to focus debate on technical solutions and arguably to delay regulation.[147] Declarations by AI companies committing to high-level ethical principles and self-regulatory codes may provide policy-makers with a reason not to pursue new regulation.[148]

54 A paper entitled "On the Dangers of Stochastic Parrots", with two of the co-authors from Google, criticise machine-learning language models.[149] The authors identified "a wide variety of costs and risks" including environmental costs and "the risk of substantial harms, including stereotyping, denigration, increases in extremist ideology, and wrongful arrest".[150] Writing for *The Guardian*, John Naughton argues that the authors' treatment by Google has highlighted:[151]

> … the extent to which the tech industry's recent obsession with 'ethics' is such a manipulative fraud. As the industry's feeding frenzy on machine learning has gathered pace, so too has the proliferation of ethics boards, panels and oversight bodies established by the same companies … The result is a kind of ethics theatre. And the reason this farcical charade goes on is that tech companies see it as a pre-emptive strike to ward off what they really fear – regulation by law.

Ethics of AI Ethics – An Evaluation of Guidelines" (2019) 30 *Minds and Machines* 99; Anna Jobin, Marcello Ienca & Effy Vayena, "The Global Landscape of AI Ethics Guidelines" (2019) 1(9) *Nature Machine Intelligence* 389; Daniel Greene, Anna Lauren Hoffmann & Luke Stark, "Better, Nicer, Clearer, Fairer: A Critical Assessment of the Movement for Ethical Artificial Intelligence and Machine Learning" (2019) HICSS 1.

145 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019) at p 11.

146 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019).

147 Brent Mittelstadt, "Principles Alone Cannot Guarantee Ethical AI" (2019) 1 *Nature Machine Intelligence* 501.

148 Thilo Hagendorff, "The Ethics of AI Ethics – An Evaluation of Guidelines" (2019) 30 *Minds and Machines* 99.

149 Emily Bender *et al*, "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?" (2021) FAccT'21 610.

150 Emily Bender *et al*, "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?" (2021) FAccT'21 610.

151 John Naughton, "Google might ask questions about AI ethics, but it doesn't want answers" *The Guardian* (13 March 2021) <https://www.theguardian.com/commentisfree/2021/mar/13/google-questions-about-artificial-intelligence-ethics-doesnt-want-answers-gebru-mitchell-parrots-language> (accessed 19 August 2022).

55 Companies have taken upon themselves to set out their visions and strategies for the future of AI.[152] By claiming a commitment to ethics, companies implicitly claim the right to decide what it means to "responsibly" deploy these technologies, and thus the right to decide what "ethical AI" means.[153] Scholars and advocates have increasingly called attention to the gap between high-level statements and meaningful accountability.[154] Brent Mittelstadt makes the observation that, unlike medicine, AI has no formal professional governance structure or norms, no external oversight or standard protocols for enforcing ethical principles.[155] Tech companies are engaging in a governance exercise in regulating their operations. For example, social media companies exercise traditional governmental functions by, among other things, enforcing their own speech codes on their platforms.[156] Facebook's move to block Australian users from viewing or sharing news[157] proves how urgent it is to curb its power. One company should not have such a stranglehold over a country's information system. Big tech companies often have governmental approval for removing content according to their version of what constitutes hate speech.[158]

56 Jørgensen describes tech companies' narrative concerning the role as safeguards against government overreach.[159] This focus is also reflected in the Global Network Initiative ("GNI"), established in 2008 with a limited corporate member base that includes Google, Facebook and Microsoft. The GNI has developed a set of standards to guide

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152 Christiaan van Veen, "Artificial Intelligence: What's Human Rights Got to Do with It?" *Data & Society* (14 May 2018) <https://points.datasociety.net/artificial-intelligence-whats-human-rights-got-to-do-with-it-4622ec1566d5> (accessed 19 August 2022).

153 Jacob Metcalf, Emanuel Moss & Danah Boyd, "Owning Ethics: Corporate Logics, Silicon Valley, and the Institutionalization of Ethics" (2019) 82(2) *Social Research: An International Quarterly* 449.

154 Daniel Greene, Anna Lauren Hoffmann & Luke Stark, "Better, Nicer, Clearer, Fairer: A Critical Assessment of the Movement for Ethical Artificial Intelligence and Machine Learning" (2019) HICSS 1.

155 Brent Mittelstadt, "Principles Alone Cannot Guarantee Ethical AI" (2019) 1 *Nature Machine Intelligence* 501.

156 Evelyn Aswad, "The Future of Freedom of Expression Online" (2018) 17 *Duke Law & Technology Review* 27.

157 "Facebook to block Australian users from viewing or sharing news" *BBC News* (18 February 2020) <https://www.bbc.com/news/world-australia-56099523?at_medium=custom7&at_custom3=%40BBCWorld&at_custom1=%5Bpost+type%5D&at_custom2=twitter&at_campaign=64&at_custom4=847FCA8C-7164-11EB-9CD6-232816F31EAE> (accessed 19 August 2022).

158 *Human Rights in the Age of Platforms* (Rikke Frank Jørgensen ed) (Information Policy, 2019).

159 *Human Rights in the Age of Platforms* (Rikke Frank Jørgensen ed) (Information Policy, 2019) at pp 168–169.

corporate policies responding to situations where local laws differ from international standards on rights to privacy and freedom of expression.[160] The standards focus entirely on company pushback against illegitimate government requests, while failing to provide similar benchmarks for other types of business practices. Jørgensen argues:[161]

> The corporate approach to translating the companies' human rights responsibility is based on a selective understanding of human rights threats, in which governments are depicted as the main violators and the role of the company is to protect users and thus to safeguard the boundaries of the system from unjustified interference. Google and Facebook identify governments as the core threat to their users' rights and freedoms and have established systems and processes to secure their services from governmental interference. From this perspective, the boundaries of their users' right to freedom of expression and privacy is protected by the companies, whereas there is no acknowledgment of the fact that such rights are vulnerable to intrusion by the companies themselves.

57 Thus far, privacy and freedom of speech have been the main issues that the tech sectors have been focusing on. However, there is a lack of approaches that address how new technologies create wider systemic human rights issues.[162] Google and Facebook have established policies and processes to address their impacts on privacy and freedom of expression but are not questioning whether their business model itself violates human rights.[163] Amnesty International argues that "the era of self-regulation in the tech sector is coming to an end: further state-based regulation will be necessary – governments must take positive steps to reduce the harms of the surveillance-based business model".[164]

58 Scholars have suggested that tech companies turn to international human rights law.[165] The UN High Commissioner for Human Rights

160 "Implementation Guidelines" *Global Network Initiative* <https://globalnetworkinitiative.org/implementation-guidelines/> (accessed 19 August 2022).

161 *Human Rights in the Age of Platforms* (Rikke Frank Jørgensen ed) (Information Policy, 2019) at p 173.

162 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at pp 21–22.

163 *Surveillance Giants: How the Business Model of Google and Facebook Threatens Human Rights* (Amnesty International, 2019) at pp 5–7 <https://www.amnesty.org/en/documents/pol30/1404/2019/en/> (accessed 18 August 2022).

164 *Surveillance Giants: How the Business Model of Google and Facebook Threatens Human Rights* (Amnesty International, 2019) at pp 5–7 <https://www.amnesty.org/en/documents/pol30/1404/2019/en/> (accessed 18 August 2022).

165 Evelyn Aswad, "The Future of Freedom of Expression Online" (2018) 17 *Duke Law & Technology Review* 27; Article 19, "Side-stepping Rights: Regulating Speech by Contract" *Article 19* (19 June 2018) <https://www.article19.org/resources/side-

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restated the need to "address the human rights challenges raised by digital technology" and that the human rights framework will be essential in ensuring adequate responses by tech companies to their negative impacts.[166] In 2019, the UN High-Level Panel on Digital Cooperation said that there is a "critical need for clearer guidance about what should be expected on human rights from private companies as they develop and deploy digital technologies".[167] The UNESCO report recommends transparency and identifies some high level principles which companies should explicitly recognise as they have an obligation to protect human rights, and particularly freedom of expression and access to information, and the privacy of their users.[168] In 2018, the UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression recommended that private companies re-align their speech codes with the existing international human rights law regime.[169] He referred to social media platforms as "enigmatic regulators" that were developing an obscure type of "platform law".[170] The report noted it would be in the companies' interests to align their internal speech codes with international human rights law.[171] The decision, however, should not be left to the companies based on their best interest; governments should impose this through regulation. Some commentators have suggested that:[172]

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stepping-rights-regulating-speech-by-contract/> (accessed 19 August 2022); *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression on A Human Rights Approach to Platform Content Regulation*, (UN Human Rights Council, A/HRC/38/35, 2018); Michael Lwin, "Applying International Human Rights Law for Use by Facebook" (2020) 38 *Yale Journal of Regulation* 53.

166 "41st Session of the Human Rights Council" *United Nations Human Rights Office of the High Commissioner* (24 June 2019) <https://www.ohchr.org/en/statements/2019/06/41st-session-human-rights-council?LangID=E&NewsID=24724> (accessed 19 August 2022).

167 *The Age of Digital Interdependence* (Digital Cooperation, 2019) at p 17.

168 *Letting the Sun Shine In: Transparency and Accountability in the Digital Age* (UNESCO, 2021).

169 *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression on A Human Rights Approach to Platform Content Regulation*, (UN Human Rights Council, A/HRC/38/35, 2018).

170 *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression on A Human Rights Approach to Platform Content Regulation*, (UN Human Rights Council, A/HRC/38/35, 2018) at para 1.

171 *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression on A Human Rights Approach to Platform Content Regulation*, (UN Human Rights Council, A/HRC/38/35, 2018) at paras 42–43 and 70.

172 Cigdem Cimrin, "Human Rights Due Diligence in the Context of Corporate Responsibility to Respect Human Rights and Artificial Intelligence", paper presented at Ankara Bar's International Law Congress (9 January 2020) at p 1.

> … instead of waiting for or expecting regulatory bodies to tailor a response to the everchanging nature and impacts of technology and its specific uses … technology companies should themselves start integrating and taking actions depending on specific dynamics and needs caused as a result of their operations.

59 Instead, governments should regulate tech business operations. Another dimension to AI legislation is algorithmic transparency.[173] This relates to the disclosure of information regarding how algorithms work.[174] The focus on transparency is a result of the view that if algorithms cannot be scrutinised, it would be difficult to identify any human rights risks.[175] A growing number of companies have committed to publishing voluntary transparency reports. Transparency is essential for trust but insufficient of itself.[176] There is a need to move from self-regulation, ethical codes and mere transparency and reporting requirements to mandatory HRDD laws.

60 In a 2021 report, the OHCHR finds that States and businesses often rushed to incorporate AI applications, failing to carry out HRDD.[177] Back in 1992, the ACM Code of Ethics already said that computer professionals must give "comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks".[178] The UNGPs are now the key framework for addressing human rights in the data economy.[179] The UNGPs establish that in order to "identify, prevent, mitigate and account for how they address their impact

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173 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019) at pp 8–9.

174 Nicholas Diakopoulos & Michael Koliska, "Algorithmic Transparency in the News Media" (2017) 5(7) *Digital Journalism* 809.

175 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 321.

176 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 323–324; Nicholas Diakopoulos & Michael Koliska, "Algorithmic Transparency in the News Media" (2017) 5(7) *Digital Journalism* 809 at 810–812; Lilian Edwards & Michael Veale, "Slave to the Algorithm: Why A 'Right to An Explanation' Is Probably Not the Remedy You Are Looking For" (2017) 16(1) *Duke Law & Technology Review* 18 at 39.

177 "The Right to Privacy in the Digital Age" *United Nations Human Rights Office of the High Commissioner* (1 November 2013) <https://www.ohchr.org/en/stories/2013/10/right-privacy-digital-age#:~:text=In%20its%20resolution%20on%20the,in%20particular%20freedom%20of%20expression%E2%80%9D.> (accessed 19 August 2022).

178 "ACM Code of Ethics and Professional Conduct" *ACM Ethics* (22 June 2018) <https://ethics.acm.org/code-of-ethics/> (accessed 19 August 2022).

179 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at pp 23–26.

on human rights" business should undertake ongoing HRDD.[180] HRDD, as both a management practice and ongoing process, offers a preventative approach to respecting human rights.

61 As a first step, tech companies need to identify and assess the actual and potential adverse impacts on the full range of human rights recognised in international human rights law.[181] Determining the impacts of AI systems that utilise machine learning may be a challenge. Raso suggests that "new analytical techniques and performance metrics may need to be developed to determine how AI systems are impacting human rights".[182] A life cycle approach is necessary to capture emerging and systemic human rights issues.[183] AI companies need to have risk management systems in place that trigger HRDD processes at all stages in the lifecycle of a technology. Second, tech companies need to address and mitigate such impacts, with the salience of risk to rights holders as a priority.[184] Companies need to ensure that respect for human rights is incorporated into the design, operation, development, deployment and evaluation of AI technologies. They should establish a human rights policy commitment throughout all business functions. Finally, companies should monitor and communicate their performance. The UNGPs make clear that HRDD is an ongoing responsibility.

62 For tech companies to carry out proper HRDD, algorithmic impact assessments ("AIAs") are particularly important.[185] AIAs require

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180 *Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework* (UN Human Rights Council, A/HRC/17/31, 2011) Principle 15.

181 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 4–5.

182 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 53–54.

183 "Artificial Intelligence: A Rights-Based Blueprint for Business" *BSR* (28 August 2018) <https://www.bsr.org/en/our-insights/report-view/artificial-intelligence-a-rights-based-blueprint-for-business> (accessed 19 August 2022); Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at p 9.

184 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at pp 23–26.

185 Andrew Selbst, "Accountable Algorithmic Futures: Building Empirical Research into the Future of the Algorithmic Accountability Act" *Data & Society: Points* (19 April) 2019 <https://points.datasociety.net/building-empirical-research-into-the-future-of-algorithmic-accountability-act-d230183bb826> (accessed 19 August 2022); Alessandro Mantelero, "AI and Big Data: A Blueprint for a Human Rights, Social and Ethical Impact Assessment" (2018) 23(4) *Computer Law & Security Review* 754; *Guidance on Human Rights Impact Assessment of Digital Activities* (Danish Institute for Human Rights, 2020); Dillon Reisman *et al*, *Algorithmic Impact Assessments:*

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tech companies to understand and assess the social implications of their technologies before they are used.[186] UNESCO also recommends AIAs for ethical AI.[187] Some scholars have advocated for a model AIA to complement data protection impact assessments.[188] Some are proposing public agency AIAs to identify impacts on fairness, justice, and bias.[189] A 2022 Ada Lovelace Institute's report sets out the first detailed proposal for the use of an AIA for data access in a healthcare context.[190] The 2019 *AI Now Report* recommends that those using AIAs should expand to consider a wider range of issues, including environmental impacts.[191] Actually, AIAs based on the concept of HRDD should include all internationally-recognised human rights. HRIAs need to start with an assessment of the business model and the AI tech as such.

C. Access to remedy

63 The right to remedy is the "third pillar" of the "protect, respect, remedy" framework on which the UNGPs rest. Under the UNGPs, both governments and companies should provide remedies to victims of business-related human rights abuses. While governments have the obligation to provide judicial remedies, businesses have the responsibility to provide other form of remedies, including company-level grievance mechanisms. In the AI sector, this requires establishing monitoring and oversight mechanisms that apply throughout the entire algorithmic process.[192] To date, the concept of remedy has narrowly focused on fixing the operation of the algorithm where bias is identified, but the concept of an effective remedy under international human rights law is much broader as it focuses on the victim rights holder as well as on measures

A Practical Framework for Public Agency Accountability (AI Now Institute, April 2018).

186 Dillon Reisman *et al*, *Algorithmic Impact Assessments: A Practical Framework for Public Agency Accountability* (AI Now Institute, April 2018).

187 "Recommendations on the Ethics of Artificial Intelligence" *UNESCO* <https://en.unesco.org/artificial-intelligence/ethics> (accessed 19 August 2022).

188 TAP Staff Blogger, "How the GDPR Approaches Algorithmic Accountability" *Technology Academics Policy* (8 November 2019) <https://www.techpolicy.com/Blog/Featured-Blog-Post/How-the-GDPR-Approaches-Algorithmic-Accountability.aspx#:~:text=Algorithmic%20Accountability%20in%20the%20GDPR&text=The%20GDPR%20largely%20governs%E2%80%94both,use%20of%20public%2Dprivate%20partnerships.> (accessed 19 August 2022).

189 Dillon Reisman *et al*, *Algorithmic Impact Assessments: A Practical Framework for Public Agency Accountability* (AI Now Institute, April 2018) at pp 3–4.

190 *Algorithmic Impact Assessment: A Case Study in Healthcare* (Ada Lovelace Institute, February 2022).

191 Kate Crawford *et al*, *AI Now Report 2019* (AI Now Institute, December 2019).

192 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 327–329.

to ensure that harm is not repeated in the future.[193] Transparency is also often cited as a form of remedy, but AI transparency is not a remedy, it is a means to end – victims do not want to know how the company breached their rights, they want the company to stop doing it.

64 Under the UNGPs, a company's responsibility results from its being involved with an adverse human rights impact. The nature of the responsibility depends on how the company is involved and is proportional to its involvement.[194] A tech company should provide grievance mechanisms when violations result from decisions made by machines or algorithms.[195] Non-state grievance and remedy mechanisms can provide effective redress for some, but not all the adverse impacts that AI may produce. Governments have an important role to play in creating effective mechanisms to remedy human rights impacts of AI.[196] The UK House of Lords Select Committee concluded that "[i]ndividual users need greater protection. They must have redress against large platforms through an ombudsman tasked with safeguarding the rights of citizens".[197] Governments should provide enhanced due process mechanisms for affected people to challenge inadequate assessments of harmful AI systems that public agencies have failed to regulate or correct.[198] So far, they are failing to do so. For example, in the EU Draft AI Act there is no role for citizens or consumers to file a complaint with the supervising authority or to seek redress if they were harmed by non-compliance with the regulation.

65 It is not clear yet what access to remedy exactly looks like in the data economy. A complication arises from the uncertainty as to what constitutes an effective remedy to a human rights impact generated by an AI system. As Raso argues, judicial remedies may be better suited to address the adverse consequences of AI for some human rights over

193 Lorna McGregor, Daragh Murray & Vivian Ng, "International Human Rights Law as a Framework for Algorithmic Accountability" (2019) 68 ICQL 309 at 323–324.

194 John Gerard Ruggie & John F Sherman, "The Concept of 'Due Diligence' in the UN Guiding Principles on Business and Human Rights: A Reply to Jonathan Bonnitcha and Robert McCorquodale" (2017) 28(3) EJIL 921.

195 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at pp 23–26.

196 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 4–5.

197 United Kingdom, House of Lords Select Committee on Democracy and Digital Technologies, *Digital Technology and the Resurrection of Trust* (HL Paper 77, 29 June 2020) at pp 6–7.

198 Dillon Reisman *et al*, *Algorithmic Impact Assessments: A Practical Framework for Public Agency Accountability* (AI Now Institute, April 2018) at pp 3–4.

others.[199] Another major challenge is the nature of the harm that AI may produce. Remedial systems are better at addressing harms suffered by one or few people, as opposed to less significant harms suffered by many. These difficulties are magnified in the AI field by the challenge of proving causation.[200] Civil society may need to develop new methods to hold companies accountable for AI-related human rights violations.[201] Public policy recommendations and regulatory frameworks need to find answers to the question of who is to be held accountable for adverse impacts on human rights caused by tech companies, both individually and collectively. The following cases exemplify the problems of relying on self-assessments over proper remedies.

66 In 2016, DeepMind Technologies, a Google subsidiary, announced a collaboration with the UK's Royal Free London NHS Foundation Trust to assist in the management of acute kidney injury with an app called "Streams".[202] Like other tech companies, DeepMind also took steps towards self-regulation. When DeepMind announced Streams in 2016, it also announced the creation of a self-appointed oversight board of "independent reviewers" to scrutinise the company's work with the NHS.[203] The data that DeepMind processed was transferred to it without obtaining explicit consent from any of the patients, or without consulting relevant public bodies.[204] Instead, the parties only went through a privacy self-assessment form, which commenced only after the deal was signed.[205] The failure on both sides to engage in any conversation with patients means lack of stakeholder consultation, a key part of any proper HRDD process. DeepMind benefitted from the absence of public law obligations, accountability, and remedies.[206] Currently, tech companies

199 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 55.

200 Filippo Raso *et al*, "Artificial Intelligence and Human Rights: Opportunities and Risks" (2018) 6 *Berkman Klein Center for Internet & Society* 1 at 55.

201 Isabel Ebert, Thorsten Busch & Florian Wettstein, *Business and Human Rights in the Data Economy: A Mapping and Research Study* (Institute for Business Ethics & St Gallen University, 2020) at p 9.

202 Julia Powles & Hal Hodson, "Google DeepMind and Healthcare in an Age of Algorithms" (2017) 7 *Health and Technology* 351 at 352.

203 "Scaling Streams with Google" *DeepMind* (13 November 2018) <https://deepmind.com/applied/deepmind-health/independent-reviewers/> (accessed 19 August 2022); Julia Powles & Hal Hodson, "Google DeepMind and Healthcare in an Age of Algorithms" (2017) 7 *Health and Technology* 351 at 361.

204 For *eg*, the Information Commissioner's Office, responsible for enforcing the UK Data Protection Act, or the Health Research Authority.

205 "Scaling Streams with Google" *DeepMind* (13 November 2018) <https://deepmind.com/applied/deepmind-health/independent-reviewers/> (accessed 19 August 2022).

206 Julia Powles & Hal Hodson, "Google DeepMind and Healthcare in an Age of Algorithms" (2017) 7 *Health and Technology* 351 at 360.

are not required to account in the same way as public institutions – even when they deliver public services.[207]

67 In 2020, Facebook established an Oversight Board to address freedom of expression complaints about removal or non-removal of content. This body underwent a human rights review and is committed to taking the UNGPs into consideration in its decision-making processes. At a consultation organised by the OHCHR in March 2022, a member of the Oversight Board described the body as fully independent and functioning like a non-judicial grievance mechanism.[208] Critics have instead pointed out that the degree of independence of the board and its efficacy is not clear yet and more transparency and independent oversight is needed.[209] Facebook's Oversight Board is paid by Facebook – even if through a trust – and thus is unaccountable. The answer to how to regulate online content should be with government policy and regulation.

68 Michael Lwin argues that Facebook and the Oversight Board should not adopt all international human rights law sources; instead, he recommends that both Facebook and the Oversight Board just start with freedom of expression.[210] This approach is, however, inconsistent with the UNGPs, which requires respect for all internationally-recognised human rights. Impacts on all human rights, and not only freedom of expression should be considered by Facebook and its Oversight Board. Sam Zarifi also questioned Facebook about considering other types of remedies, and remedies for other breaches of its policy, in addition of the limited freedom of expression approach.[211] Lwin continues:[212]

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207 Julia Powles & Hal Hodson, "Google DeepMind and Healthcare in an Age of Algorithms" (2017) 7 *Health and Technology* 351 at 360.

208 "OHCHR Consultation and Call for Submission on the Practical Application of the United Nations Guiding Principles on Business and Human Rights to the Activities of Technology Companies" *United Nations Human Rights Office of the High Commissioner* (7–8 March 2022) <https://www.ohchr.org/en/events/consultations/2022/ohchr-consultation-and-call-submission-practical-application-united> (accessed 19 August 2022).

209 Alex Hern, "DeepMind Announces Ethics Group to Focus on Problems of AI" *The Guardian* (4 October 2017) <https://www.theguardian.com/technology/2017/oct/04/google-deepmind-ai-artificial-intelligence-ethics-group-problems#:~:text=Deepmind%2C%20Google's%20London%2Dbased%20AI,questions%20raised%20by%20artificial%20intelligence.> (accessed 19August 2022).

210 Michael Lwin, "Applying International Human Rights Law for Use by Facebook" (2020) 38 *Yale Journal of Regulation* 53.

211 Sam Zarifi, "Facebook's Answers to Questions about its Human Rights Policy" *OpinioJuris* (11 June 2021) <http://opiniojuris.org/2021/06/11/facebooks-answers-to-questions-about-its-human-rights-policy/> (accessed 19 August 2022).

212 Michael Lwin, "Applying International Human Rights Law for Use by Facebook" (2020) 38 *Yale Journal of Regulation* 53.

> The Facebook Oversight Board has the potential to become an immense, world-changing success. It could constitute a new quasi-judicial body that draws on a respected source of law, the IHRL … and advance freedoms of expression … The Oversight Board would give international law teeth … At the same time, the Oversight Board could also become what its detractors fear: a kangaroo court … Article 19 of the ICCPR can allow the Oversight Board to come up with its own 'common law'.

69 The idea that Facebook can be the enforcer of international law or create its own law is extremely problematic. In addition, focusing only on the content and on how Facebook should be the content gatekeeper does not address the core business model problem – that content is targeted at people with the intention of manipulation. Siva Vaidhyanathan rightly argues:[213]

> The board … will have no authority over advertising or the massive surveillance that makes Facebook ads so valuable … most importantly, the board will have no say over how the algorithms work and thus what gets amplified or muffled by the real power of Facebook.

70 Victims have also attempted judicial remedies. In January 2022, Meta was sued at the Competition Appeal Tribunal in London for £2.3bn in a class action lawsuit which claimed that 44 million Facebook users in the UK had their data exploited. The case argues that Meta has broken the UK Competition Act by setting an "unfair price" for Facebook's UK users when given access to the service. The lawsuit argues that the price for getting on Facebook, which does not charge its users, is handing over personal data that generates most of the company's income. Globally, Facebook makes 98% of its income from advertisers, who target specific people because the company has built up profiles of its users through their online activity. "They are exploiting users by taking their personal data without properly compensating them for taking that data", said the lawyer bringing the lawsuit.[214]

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213 Siva Vaidhyanathan, "Facebook and the Folly of Self-Regulation" *Wired* (5 September 2020) <https://www.wired.com/story/facebook-and-the-folly-of-self-regulation/> (accessed 19 August 2022).

214 Dan Milmo, "Meta sued for £2.3bn over claim Facebook users in UK were exploited" *The Guardian* (14 February 2022) <https://www.theguardian.com/technology/2022/jan/14/meta-sued-for-23bn-over-claim-facebook-users-in-uk-were-exploited#:~:text=6%20months%20old-,Meta%20sued%20for%20%C2%A32.3bn%20over,users%20in%20UK%20were%20exploited&text=Mark%20Zuckerberg's%20Meta%20is%20being,up%20to%20the%20social%20network.> (accessed 19 August 2022).

IV. Conclusion

71 The data-driven business model described in this article is profoundly changing society. In the words of Lanier: "there is an entire global generation of people who are raised in a context where the very meaning of culture is manipulation".[215] Tech companies are transforming the world without taking responsibility for taking over the public square. AI technology is going to become more integrated into our lives and is going to become better at predicting our behaviour.

72 With the goal of financial gains for private corporates, AI systems stand in opposition to human rights.[216] The negative impacts emerging from AI systems, as well as the lack of responsibility taken by businesses designing, selling and deploying such systems, remains the most pressing discussion in AI.[217] Zuboff concludes, "[t]hese markets undermine democracy and freedom and should be outlawed, this is not a radical proposal: we do outlaw markets in human organs, or markets in human slaves".[218] The data extraction business model should be strictly regulated. The future of human rights depends on whether we can change this business model so people are not treated as extractable resources.

73 Human rights play an increasingly vital role in setting contextual boundaries to AI deployment.[219] The problem is that there is no regulation of the business model as such and no accountability while companies are acting as *de facto* governments. As the AI Now 2019 report found:[220]

> There are significant consequences of AI's use and developments, and the danger of leaving determinations around these issues in the hands of a small number of individuals and corporations, whose incentives and world views are often at odds with the interests of those who bear the consequences of such decision.

74 Tech companies insist that they can regulate themselves. For them, the solution is to build more AI tools to solve the problems posed by AI. Companies are framing it as a problem that they are equipped to solve by themselves. Currently, laws are not for the protection of users, but for the protection of big tech companies. Governments urgently need to regulate the establishment of a framework to assess AI systems

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215 *The Social Dilemma* (2020).

216 Abeba Birhane, "Algorithmic Colonization of Africa" (2020) 17:2 SCRIPTed 389; Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (Profile Publishers, 2019).

217 Abeba Birhane, "Algorithmic Colonization of Africa" (2020) 17:2 SCRIPTed 389.

218 *The Social Dilemma* (2020).

219 Mark Latonero, *Governing Artificial Intelligence: Upholding Human Rights and Dignity* (Data & Society, 2018).

220 Kate Crawford *et al*, *AI Now 2019 Report* (AI Now Institute, 2019) at pp 10 and 12.

and the business model behind it and to ensure public accountability. The AIA framework proposed in this article is based on the concept that the HRDD of the UNGPs can support affected communities and stakeholders as they seek to assess the claims made about AI systems, and to determine if their use is acceptable.