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Submission to the Human Rights and Technology Project

Response to selected questions in the Human Rights and Technology Issues Paper



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In this submission, we provide insights from critical political economy and political philosophy to identify human rights concerns relating to new technologies within the context of the ‘fourth industrial revolution’. This so-called revolution is commonly given the designation ‘Industry 4.0’ to highlight the role played by digitalisation in combining data and AI technologies with production systems to achieve greater efficiency and integration. At the heart of the Industry 4.0 concept are ‘cyber-physical systems’ (CPS). These merge digital technologies with physical production to make it possible for people, machines and broader production systems and networks to become fully and intelligently integrated, increasing the efficiency and flexibility of production.¹

Ostensibly, some new technologies driving this transformation propose to remove the boundaries between humans and technology. Below we draw attention to some of the issues around technology that a) raise concerns about human rights as they relate to work, employment and quality of life; and b) must be further understood in terms of how the deepening integration of humans with technology presents challenges to our conceptualisation of humanity, and therefore of human rights.

1. What types of technology raise particular human rights concerns?

Digital data plays one of the most significant roles in enabling new technologies that will impact humans in the dimensions of work and leisure as they are further integrated into our lives. This presents challenges to our understanding of what it will mean to be human in a world increasingly shaped by intelligent machines and forms of technology capable of manipulating data. Our concern lies with whose interests these technologies will serve, and what some of the implications of this for humans might be.

1.1 Concerns around the impact of new technologies for the future of work and workers

The increasing frequency of use of digital technologies is of possible concern to human rights in the workplace and in the home. Digital applications (‘apps’) that make use of cloud connectivity, virtual reality (VR) and augmented reality (AR) are examples of technologies proposing value to users in their ability to produce flexible work opportunities that drive greater work-life balance. But counteracting the obvious benefits of these technologies are a number of consequences of their use that potentially pose a threat to humans.

First, these digital technologies pose a threat to the freedom and autonomy of humans in the workplace, where there is a possibility that the data collected is used for surveillance of workers and for implementing disciplinary strategies tailored towards individual employees. Technology firms often refer to digital technologies as providing ways to enhance worker productivity and efficiency. But negative impacts of technology based data collection methods are identified by some as being used to extract additional value and productivity from workers, raising both issues of workers’ data privacy rights and of workers’ rights to fair work conditions and quality of life.²

Second, flexible work arrangements transfer these potential negative effects to non-traditional work environments, potentially meaning the home, as business models operating on digital platform-based technologies afford workers flexible work arrangements. This represents a blurring of the line between work and private life. These technologies pose a threat to human rights with the monitoring of employees in the workplace and potentially also in the home as they undertake digitally enabled forms of work. Whilst the creative application of some digital technologies purport to offer greater freedom and flexibility, the manipulation of data to deliver managerial goals may, in reality, increase the intrusive reach of employers into the lives of employees.

Hence, these technologies present the potential for a digital form of ‘managerialism’³ with which firms can organise workplaces in the digital age. This gives employers powers to exert intrusive control over their

¹ Platform Industrie 4.0. (2017). *What is Industrie 4.0?* Available at: <http://www.plattform-i40.de/I40/Navigation/EN/Industrie40/WhatsIndustrie40/what-is-industrie40.html>.

² IndustriALL. (2017). *Industry 4.0 needs to be accompanied by Education 4.0*. Available at: <https://news.industriall-europe.eu/Search/Industry%204.0>.

³ Degryse, C. (2016). *Digitalisation of the economy and its impact on labour markets*. Brussels, Belgium: European Trade Union Institute.

workers.⁴ Reports detailing the warehouse operations of global commerce giant Amazon exemplify this digital form of managerialism when pushed to extremes. Workers at Amazon's Australian warehouses are given work orders via digital technologies that determine priorities and monitor work activity by the minute. Over audio communication devices, workers are frequently told to increase their pace of work. Workers not only face key performance indicators that incur managerial discipline if not met; such treatment of workers produces a range of negative psychological consequences that are troubling in terms of occupational health and safety and basic human rights.⁵ Altogether, these features of digital technologies reveal the potential consequences of the conditions facing workers in new forms of work that are driven by digital technologies. The manipulation of digital technologies in ways that transgress established human rights in the workplace has the potential to produce conditions akin to 'digital despotism'⁶ and in conflict with long-established minimum working conditions.

Furthermore, rights to privacy in the non-work lives of employees is also of concern where digital technologies make possible the extension of this form of control and manipulation into the home. As has been reported in *New Scientist*, fears of robots taking over distract our attention from technology issues that are of more immediate concern to human rights. For example, Amazon's 'Alexa' home assistant has been found to be listening to conversations taking place in the privacy of users' homes when *not* activated, in order to calibrate algorithms for better targeted advertising.⁷ This represents an instance of technology utilising personal data (i.e. private conversations) to bring commerce into the confines of peoples' homes, entailing a creeping commoditisation of our rights to privacy. The 'right to disconnect', and the 'right to be non-reachable' exist in European law to ensure quality of life by guaranteeing there is a clear boundary between work life and private life. These rights would potentially be violated by the invasiveness of new technologies that give employers the power to increase productivity by expanding surveillance.⁸ Furthermore, the right to be non-reachable would be violated by the intrusion of advertising into traditionally non-market areas of our lives.

The concern about the impact of digital technologies linked broadly to the 'fourth industrial revolution' and its Industry 4.0 policy context can be broadened to its impact on long-established workplace practices, which have been developed within a framework of human rights through law and regulation. At present, Australian industrial relations law, regulation and oversight lags behind the rapid transformation of work brought about by digital disruption. In Australia, there is serious concern that the speed of change brought about by the use of digital technologies in the workplace will continue to outpace current forms of regulation. Digitally based businesses like Uber, Deliveroo and Airtasker purport to connect workers with customers in 'the cloud' to 'facilitate' the delivery of services. While there is nothing particularly new about this approach, the technologies available today are enabling it to proliferate globally. These new platforms are testing the robustness of regulatory frameworks designed to protect workers from exploitation and harm.

As the servitisation of many industries comes to define the digital economy, the increasing digital basis of work may set a precedent for the rolling back of typical employee protections and their rights to collective representation. For example, work performed in a factory setting affords employees opportunities to bargain collectively. However, the geographic diffusion of work produced with many digitally based jobs, if applied similarly to digital manufacturing jobs, could create space for employers to dismantle labour protections that apply within traditional geographically confined spaces. Recent analyses of the operation of digital platform service-based business Airtasker in Australia revealed the company's claim to not employ gig economy workers utilising its app-based technology, but rather act as 'facilitator' of their contractual relationships with customers.⁹ The digital basis of manufacturing employment may similarly afford firms scope to define workers

⁴ Triangle, L. (2017). Digitalisation of Industry - Workers and social issues at the centre! *The Digital Single Market Blog*. European Commission.

⁵ Hatch, P. (2018). In Amazon's 'hellscape', workers face insecurity and crushing targets. *The Age*. 7 September.

⁶ Pfeiffer, S. (2017). Industrie 4.0 in the Making - Discourse Patterns and the Rise of Digital Despotism. In: Briken K, Chillias S, Krzywdzinski, M., et al. (eds) *The New Digital Workplace: How New Technologies Revolutionise Work*. London, UK: Springer.

⁷ Brooks, M. (2017). Artificial ignorance. *New Scientist*. 7 October 2017 ed. Cambridge, USA: New Scientist, Ltd., 28-33.

⁸ Hale, J. (2018). Shaping the future of work collectively – How trade unions anticipate the introduction of new technology at the workplace. *International Politics and Society Journal*, <https://www.ips-journal.eu/regions/europe/article/show/shaping-the-future-of-work-collectively-2878/>

⁹ Minter, K. (2017). Negotiating labour standards in the gig economy: Airtasker and Unions New South Wales. *The Economic and Labour Relations Review* 28: 438-454.

as ‘independent contractors’ permitting them to cut labour costs and avoid liabilities, including provision of essential capital equipment.¹⁰

1.2 Concerns around the impact of new Industry 4.0 technologies and what it means ‘to be human’

Beyond the ability for digital technologies to be utilised in order to exert greater control over workers in the workplace, and potentially violate the private spaces in which humans recreate, such as the home, the actual combination of digital technologies with humans in potentially seamless ways raises concerns in another dimension of the issue, specifically around our definition of humanity. This interaction of new digital technologies with humans can arguably lead to major changes in our understanding of ourselves as ‘human’. The major technologies of concern here are Artificial Intelligence (AI) and robotics on the one hand, and biotechnologies on the other. Apart and in combination, these categories of technology offer clear answers to the question of what it means to be human: namely, it means to ‘enhance’ our species and therefore ‘transition out’ of the species *homo sapiens*. In this way, the combination of humans with enhancing technologies represents a form of ‘trans-humanism’.¹¹

However, AI, robotics and biotechnologies can also be interpreted as ushering in a ‘post-human’ condition.¹² As possible cyber-physical systems, these technologies can allow us to interact on more equal terms with other species, both natural and artificial. For this reason, we can focus on how post-humanism potentially represents not a ‘trans-humanism’ but an ‘inter-humanism’ that understands humanity as a species open to hybridisations with other species, both natural and artificial. Understanding cyber-physical systems in this way means the question in need of investigation is: how will new technologies serve a post-humanity or a trans-humanity?

A second issue to consider relates to the impact of new technologies on our conceptions of human dignity. It is common today to employ the reference to ‘human dignity’ as the last recourse against the development of bio-technologies for human self-enhancement.¹³ We should instead be concerned to formulate what human dignity means in both a trans- and a post-humanist scenario. In trans-humanist terms, technological enhancements suggest the potential creation of super-human intelligences that have surpassed the computing capacities of biological humanity, but will be employed to serve the needs of humans.¹⁴ But once such super-human servants are no longer required to fulfil human tasks, having solved all human problems, the relationship of human as master and super-human as servant may be overturned. Rather than this meaning the enslavement of humanity by a super-human, technologically advanced intelligence, we should focus our attention to the way that this possibly makes humans redundant.

In this situation, our human rights would appear to these superior intelligences to stand in exactly the same relation as the problem of ‘animal rights’ stands for us today, or human rights will be identical to the rights of ‘disabled’ people.¹⁵ This scenario brings to light an important insight, namely, that the function of human rights is to put out of play structural inequalities of the kind that currently apply between human/animal and able/disabled individuals. Additionally, the transhumanist scenario raises the important concern: How does humanity keep from becoming ‘expendable’ in such a trans-human context? This leads directly to proposing a basic principle for the research and implementation of new technologies on a transhumanist trajectory: only the creation of intelligent devices that can undo structural inequalities, and that will not make humanity expendable, is permissible.

Considered as a thought-experiment, the Kurzweil hypothesis of the Singularity forces us to consider the consequences that such new technologies have for our conception of human dignity. A significant challenge for the development of new human rights relating to technological change and its increased influence over our lives will be to combine the concept of human dignity as intrinsic value (non-economic) with the idea of

¹⁰ Stanford, J. (2017). The resurgence of gig work: Historical and theoretical perspectives. 382-401.

¹¹ Harari, Y. N. (2017). *Homo deus. A Brief History of Tomorrow*. New York: Harper.

¹² Braidotti, R. (2013). *The Posthuman*. Cambridge, UK: Polity; Barad, K. (2007) *Meeting the Universe Halfway*. Durham: Duke University Press; Bennet, J. (2010) *Vibrant Matter. A Political Ecology of Things*. Durham: Duke University Press.

¹³ Habermas, J. (2003). *The Future of Human Nature*. Cambridge, UK: Polity.

¹⁴ Kurzweil, R. (2006). *The Singularity is Near. When Humans Transcend Biology*. New York: Penguin.

¹⁵ Nussbaum, M. (2006). *Frontiers of Justice: Disability, Nationality, Species Membership*. Cambridge, USA: Belknap Press

human dignity conceptualised in terms of its service to nature, rather than the other way around. This combination is of particular importance as automation technologies continue to replace workers in jobs faster than those jobs can be replaced; and at the same time human civilisation faces potentially catastrophic scenarios like climate change. In relation to the latter, this concept of dignity as service to nature is appealing, offering a new way to think about human dignity in terms of a meaningful, mission-oriented contribution to our environment, and for human rights to be developed around this noble concept.

2. How should Australian law protect human rights in the development, use and application of new technologies? What principles should guide regulation in this area?

A number of legal, Industrial Relations and taxation measures for state and federal Australian governments to consider in regulating the sharing economy to enact worker protections against radical platform-driven disruptions have been proposed.¹⁶ Further related attention to these issues with reference to human rights will help to measure the success of regulating the gig economy at national and state/territory levels in Australia, and serve as an example for addressing the digitalisation of work. Attention must also be given more broadly to the techno-utopian vision promoted in much of the Industry 4.0 policy and strategic materials which is most often conspicuously silent on the human dimensions of digitally driven change, and hence silent on technology's impacts on the rights of humans.^{17,18}

With respect to AI and robotics, the debate for the development of "a common, international ethical and legal framework" is perhaps most advanced in the EU. Recently the EU Commission has called for the development of EU Civil Law Rules for Robotics. The Commission proposed: "Creating a specific legal status for robots in the long run, so that at least the most sophisticated autonomous robots could be established as having the status of electronic persons responsible for making good any damage they may cause." The assumption behind this call for granting legal status to intelligent machines was that decisions made by autonomous AI systems could not be traced back to any human agent, and thus would not be the ground for liability, leaving the human rights of users of such technology without protection. By giving the AI machine a "robotic personality," compensation for damages occasioned by such robotic intelligence could be made by affected citizens.

The 'AI and Robotics Community' wrote a response in which it argued that: "A legal status for a robot can't derive from the Natural Person model, since the robot would then hold human rights, such as the right to dignity, the right to its integrity, the right to remuneration or the right to citizenship, thus directly confronting the Human rights" (<http://www.robotics-openletter.eu/>). The argument seems to be that if robots, in virtue of their electronic personality, were granted human rights, then human beings could be deprived of theirs: things done by robots that human beings consider to be human rights violations could arguably be defended as being within the new rights of robots. Alternatively, the argument can be construed as follows: if robots have human rights, then human beings could be treated like robots, thus depriving them of their human rights, which is contrary to human rights declarations.

It is unclear where this counter-argument is valid. For it is common practice, precisely in the EU, to treat artificial persons like corporations as if they too can make human rights claims against governments. If the argument assumes that human rights cannot be given to 'artificial persons' because they only belong to 'natural persons,' i.e., human beings, then it encounters several objections: first, other living beings who are not 'natural persons' are deprived of (human) rights, making the possibility of animal rights or nature rights highly problematic. Second, the conception of 'personhood' is not itself 'natural' but quite artificial, a product of a legal system. This point can be articulated in two distinct ways: A) since personality is a legal artifice, it can be applied in trans- or post-human ways, namely, to give legal personality to intelligent robots as much as to rivers. B) since personality is artificial, and human rights ought to be given to human beings as 'natural' beings, then the basis of human rights is not legal artifice but natural life, which is common to many living species, not only biological species but also autopoietic systems, and in this way we reach, by different means, the same conclusion, namely, that new technologies lead to the extension of human rights beyond

¹⁶ Minifie, J. (2016). *Peer-To-Peer Pressure: Policy for the Sharing Economy*. Melbourne, Australia: Grattan Institute.

¹⁷ Dean, M. and Spoehr, J. (2018). The fourth industrial revolution and the future of manufacturing work in Australia: challenges and opportunities. *Labour & Industry: a journal of the social and economic relations of work*: doi:10.1080/10301763.10302018.11502644.

¹⁸ Pfeiffer, S. (2017). The Vision of "Industrie 4.0" in the Making - a Case of Future Told, Tamed and Traded. *Nanoethics* 11: 107-121.

the human species. These considerations lead us to formulate the following principle when considering extending rights to intelligent, autonomous systems: rights can be extended to artificial forms of life only if the same rights, and on the same basis, are extended to natural forms of life. The development of new technologies is acceptable if and only if it allows the human species to abandon its claim to be the 'master of nature'.

