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Adams, R.; Pienaar, G.; Gastrow, W.; Olorunju, N.; Gaffley, M.; Ramkissoon, Y.; Van der Berg, S.; Adams, F.; Thipanyane, T. HSRC Press. 2021. *Human Rights and the Fourth Industrial Revolution in South Africa*. 168 pp. R185.

In this seven-chapter report, the authors present a guide to the policy development of human rights-based fourth industrial revolution (4IR) policies in South Africa. Based on the input given during a workshop organized by the South African Human Rights Commission (SAHRC), at the beginning of March 2020, the comprehensive report covers various areas in which artificial intelligence (AI) and 4IR technologies are employed, or to be employed, in South Africa. The authors lay a foundation for the discussion within the current social-economic

and political development landscape of South Africa, through their engagement with the various development policy trajectories as they conceptualize technological transformation. In the same breath, the report acknowledges that any successfully implemented 4IR policy regime would have to acknowledge and engage sources and dynamics of current socioeconomic challenges in the country, such as unemployment, poverty, and inequality (p. 1; p. 93). The argument put forward in this regard is that while the anticipated technological transformation is meant to help various facets of South African life (p. 8-12), ignoring the extant challenges could hurt any chance of beneficial technological transformation (p.58). In Chapter 2, the report engages various aspects of data governance in South Africa through an analysis of various pieces of extant policy, with a comprehensive comparison to international (UNHRC) and regional (ACHPR) policy instruments. While the report acknowledges the nascency in the development is such policies, both internationally and within the country, it also notices various lacuna in the extant policies. Of concern are various implementation gaps in most sectoral (DSI, DCDT, DTIC) statutes in South Africa.

The use of AI and 4IR technologies to support law enforcement and court systems are also acknowledged as being in infancy in the country, compared to regional and international standards (Japan, Australia, Hong Kong, China) (p. 50). However, the authors do not see this as an indictment of progress and human rights, as they point to negative externalities of technological progress in these areas as experienced in other countries like China ((p.52). In this regard, they raise cautious optimism about the prospects of embracing certain technological facilities due to possibilities of bias and negative discrimination. Caution is also raised in the issues of policymaking regarding the implementation of 4IR in the context of perceptible discrepancies in the digital divide, along with gender, race, and location divide. According to the authors, introducing substantive 4IR revolution policies that are blind to extant inequalities in this regard has real possibilities of accentuating this schism. As such, targeted interventions in bridging the gap between technological infrastructure, knowledge,



and practices must precede and implementation of advanced technological services. These transformative interventions must also inform an epistemological shift that acknowledges not only that citizens' rights online are similar to those they enjoy offline, but also a sense of responsibility for digital citizenry: a balance between what constitutes freedom of expression and hate speech – cybersecurity and cybercrime. Lastly, the authors acknowledged that any human rights-based 4IR policy regime will acknowledge South Africa's unique position in terms of socio-economic rights. As constitutional rights, various socio-economic rights (especially education and healthcare) stand to be helped by the adoption of various technological facilities that constitute the 4IR. While the future of work, in education, healthcare, and other areas, may face short-run challenges as a result of the adoption of progressive technologies, the service provision aspect may experience huge boosts in efficiency and expand the realm of the possibility. Most service delivery in various socio-economic sectors struggle with aspects of transparency, responsiveness, and accountability; adopting AI and 4IR technologies, especially in algorithms and informatics can assist in expediting some of these challenges.

In Chapter 7, the authors reiterate their purpose of offering a policy-making guide in creating a human rights-based 4IR policy regime in South Africa. They see this as possible by focusing on three aspects: (i) the development of 4IR policies; (ii) re-conceptualization and capacitation of constitutional and statutory bodies related to 4IR and human rights, and; (iii) providing awareness and understanding of 4IR and human rights within communities. While acknowledging the comprehensiveness of the South African constitutions in enunciating and protecting human rights, and instituting various bodies (Chapter 9 institutions), the report acknowledges the gap in the implementation of various statutes (PAIA & POPIA) and capacitating statutory bodies such as Information Regulator South Africa (IRSA). This as they argue has ensured that while certain rights are protected through the constitution and various statutes, they remain unrealized due to lack of implementation or enforcement. As such, policy formulation in terms of regulating 4IR technologies must be inclusive and transformative if they hope for a human rights-based approach. In addition, constitutional and statutory bodies charged responsible for ensuring that various rights are observed and protected must collaboratively engage in defining the 4IR space, as well as receive the necessary capacitation to carry out their duties. Finally, while the supply-side of a prospective human rights-based 4IR regime must be enabled, the demand-side need interventions in awareness and capacitation to take full advantage of the changes and facilities afforded by the technological transformation, while protecting themselves and others.

This is a crucial and timely seminal work on one of the global topical subjects. As argued in the report, 4IR while crucial, has been used as a heuristic for several technological changes experienced in the country (p. 21). Normatively, 4IR is seen as a cross-sectoral panacea to many national challenges and priorities. The report does a great job covering many major sectors in which technological transformation associated with AI and 4IR are likely to lead to human rights concerns. It rightly discusses the "double-edged sword" (p.12) effect of 4IR, and charts various sectoral and national remedies to a number of possible violations. While international concern on progress in AI and related developments is pervasive, the current report is one of the few comprehensive treatises on the subject. The report is mainly targeted at public officials and private actors, who are responsible for advocating for and creating regulatory and substantive policies and sectoral statutes. A lot of experience has indicated the need for cautious optimism as we embrace many developments associated with "the internet", yet many actors overemphasize the 'optimism' and overlook the caution. Emanating from the national human rights institute (NHRI), SAHRC, the report justifiably dwells on cautioning various actors responsible for designing and implementing 4IR policies. The authors do this meticulously by grounding their arguments on the contextual realities of South Africa. They then argue, and rightly so, that the issues of digital rights must supervene from basic socio-economic rights. The resolution of inequality, in access and outcomes, poverty and unemployment must be prioritized even as the country tends towards technological progress. One would even argue, that the report does not emphasize, that South Africa has the moral obligation to prioritize the adoption of 4IR technologies that would enable the delivery and access of various socio-economic services. Discretionary innovation is a running theme in the report, mainly achieved through comparison with international and regional practices. The report also recommends the institutionalization of human rights impact assessment (p. 57) to ensure that whatever technologies are adopted are human rights compliant.

The report deals comprehensively with the nexus of privacy and cybersecurity. As already gleaned from experiences with social media and various information management systems within public and private organizations, the inception of 'the internet' has led to the need to re-conceptualize our understanding of the right to privacy and freedom of expression in a manner that embraces conventions on cybersecurity. As rightly averred, 4IR is data- and information-driven. It is important therefore for national policies to ensure that personal data and information with individual implications be treated with respect. The report deals comprehensively with this theme in Chapters 3 and 5, arguing that while South Africa has pieces of legislation regulating access to various pieces of information and freedom of expression, regulatory safeguards need to be vigilantly enforced to ensure that these rights continue to be enjoyed by all.

However, the overemphasis on drafting regulations loses sight that South Africa has one of the more elaborate rights-based institutions in the region. The issue becomes implementation, monitoring, and evaluation. While communal awareness and capacitation are crucial for participation in the 4IR and ensuring bulwark against rights violations, however, another crucial aspect of implementing a human rights 4IR regime is securing buy-in from various street-level bureaucrats. Ensuring substantive monitoring of such compliance will be crucial in achieving the stated objective, yet the report has de-emphasized this. Another blindside in the report is the conceptualized relationship between 4IR and human rights. In most cases, the authors argue that the unregulated embrace of 4IR technologies in various sectors will either exacerbate extant human rights challenges or produce new ones (p.58). While this is a pertinent point in the context of South African inequalities, the report fails to sufficiently raise optimism on the role of 4IR in bridging the inequality gap in information and opportunity access. It is a fact that countless examples of individuals and organizations have benefited from technological advancement. Several scholars have conceived of the internet "as the great equalizer"- enabling individuals and organizations access to a global wealth of relevant information which would have been otherwise the preserve of the privileged in a pre-internet epoch. The authors missed the opportunity to show how 4IR technologies could be used to bridge the gaps between social groups in South Africa. However, these minor omissions do not dent the value of this comprehensive and novel report, with clear national and transnational applicability.