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GENDERED DIGITAL INEQUALITIES: HOW DO WE ENSURE GENDER TRANSFORMATIVE LAW AND PRACTICE IN THE AGE OF ARTIFICIAL INTELLIGENCE IN AFRICA?*

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Abstract

The advent of digital technology in Africa presents a dual narrative, offering both promise and peril as nations strive to integrate into the global digital landscape. While digital advancements hold potential for developmental and economic progress, the continent grapples with stark gender disparities in internet access, with women and gender-diverse individuals disproportionately affected. As governments design strategies to harness digital tools for societal advancement, foreign tech firms flock to support these initiatives, particularly in emerging fields like artificial intelligence (AI) and machine learning. This chapter examines the intricate interplay between AI development and data dynamics, emphasizing the gendered dimensions of privacy and data protection. Through a gender-centric lens, it advocates for inclusive policies within the Southern African Development Community (SADC), notably in South Africa, guided by feminist principles of the internet and data feminism. Drawing on primary research with stakeholders, including activists and legal experts, the chapter underscores the imperative of a nuanced approach to AI governance, one that safeguards against exacerbating existing inequalities while fostering a more equitable digital future. Recommendations for policymakers and civil society underscore the need for proactive measures to ensure that digital innovations uphold, rather than undermine, fundamental rights and societal equity.

1   Introduction

The aspirations of African countries and governments to be connected to the new digital ecosystem presents a double-edged sword on what it means to be part of the digital world. Digital technology is seen as part of the solution to the problems that African countries face from a developmental and economic growth perspective. According to the 2019 International Telecommunication Union (ITU) ICT statistics, over half of the world

is estimated to be connected to the internet. In Africa, only a third of the individuals on the continent use the internet, constituting 37 per cent of the male population as compared to 20 per cent of the female population – indicating a gender digital divide.[1] Women and gender-diverse people already bear the societal brunt of inequality, which extends to the digital space.

African governments are developing strategies and policies to ensure access to and use of digital technology in all spheres of life while foreign-based technology companies are convening on the continent to support the technology roll-out. New emergent technologies, in particular, artificial intelligence (AI) and machine learning-based solutions, have become the focus of digital development in a race to be technologically ready for the Fourth Industrial Revolution (4IR). These technologies are found in daily services as people use social media platforms relying on algorithms for moderation and content direction, and in financial services with automated decision-making systems determining who has access to services. Kenya, South Africa, Tunisia and Nigeria are some of the main digital technology hubs developing ways to support AI-based innovations with a thriving start-up ecosystem. However, the development, implementation and governance of these AI-based innovations in the context of inequality, especially around data fed into them, raises important questions as to their impact on society and digital rights.

This chapter is concerned with the way in which personal and non-personal information feeds into the development of AI-based innovations, and regardless of it being in the form of aggregated data sets, shapes how people experience privacy from a gender and sexual orientation perspective. Focusing on gender inequalities in the conversation demands a gender-centred approach to interrogating new technologies that are being implemented, from conceptualisation and design to the safeguards that have been put in place to ensure that inequalities are not increased or new ones formed.

A gender lens is used to propose ways of ensuring gender-responsive laws and policies to privacy and data protection in the Southern African Development Community (SADC) with an extensive focus on South Africa. Feminist principles of the internet and data feminism are conceptual tools used to conduct research and analyse findings.

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1   'Measuring digital development – ITU facts and figures 2019', https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2019_r1.pdf (accessed 20 September 2021).

Primary research is conducted with identified digital rights, gender and sexual justice activists, technical community and policy analysts, and legal experts to gauge awareness and concerns regarding privacy and data protection with the uptake of AI-based innovations. The chapter highlights the context to indicate the issues in which these systems are embedded. Considerations of what a gender-responsive law would look like are provided with recommendations for policy makers and civil society.

2　Conceptual framework and approach

The replication of existing inequalities, development of new social injustices and unequal power dynamics impact the difference in experiences of decisions made by algorithms from AI and machine-learning systems. A feminist approach is used to assess the issues at hand beyond compliance for economic engagement, rather the social aspects of using the technology within the context of social inequalities. Context is central to understanding what may be done to address the issues at hand from a gender perspective. The research questions are (i) what a gender-responsive data protection and privacy law would entail to ensure gender transformative law and practice; (ii) how civil society can play a role in ensuring a gender-transformative law and practice with a focus on the right to privacy.

2.1　Feminist conceptualisation

The replication of existing inequalities, the development of new social injustices and unequal power dynamics impact the experiences of these new technologies with significant impacts on marginalised communities. This research is conducted from a gendered perspective and takes on feminist approach in understanding the issues of concern,[2] drawing from the concepts of data feminism, feminist principles of the internet, intersectionality, and data justice. The novelty of this work in the African region lends itself to drawing from different schools of thought that underpin feminist thought.

The study draws on data feminism principles to guide its methodology.[3] The principles are examining power – the way it operates in the world; challenging power – to push back against these power dynamics and work towards justice; rethinking binaries – challenge the gender binary

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2　C Chair 'A feminist approach to assessing AI, privacy and data protection in South Africa' (2020), https://mydatarights.africa/a-feminist-approach-to-assessing-ai-privacy-and-data-protection-in-south-africa/ (accessed 20 September 2020).

3　C D'Ignazio & LF Klein *Data feminism* (2020).

and binaries that lead to oppression; embracing pluralism – bringing together multiple perspectives while prioritising lived experiences of the communities affected and focusing on local and indigenous knowledge; considering context – locate this conversation in context to understand the unequal social relations; make labour visible and elevate emotion; and the embodiment of value in multiple forms of knowledge. These guiding principles allow for critical engagement and centring of society in relation to technology and current laws. In centring society, we focus on its differences, challenging neutral approaches to law and technology. A feminist approach allows one to ask questions of who is being represented and by whom; whose interests are being centred; why this discussion is important and how it is taking place, allowing for criticism of power and how data can be used to ensure justice in society.[4]

The feminist principles of the internet on privacy and data protection also form the underlying conceptualisation of this work. The cluster of agency specifically involves building the politics of consent into the culture, design, policies, and terms of service of internet platforms; the right to exercise and retain control over our personal history and memory on the internet; the right to privacy and total control over personal data and information online; the right to be anonymous; the inclusion of the voices and experiences of young people in the decisions made about safety and security online; and the agency to address and find solutions to the issues of online harassment and technology-related violence.[5]

The experiences of inequality in society are different. In this study, intersectionality allows us to look at the layers of inequalities based on the different spaces we occupy. Crenshaw highlights that intersectionality allows us to see inequality of gender experienced at various points, including race, where you stay, the class you occupy and sexuality.[6] Furthermore, Hill-Collins shows that there are domains of power in which we exist at different times that shape our experiences of opportunities and inequalities at varying intersectionalities.[7] Hill-Collins identifies four domains of power: the structural domain – the design and focus of the law; the disciplinary domain – the way things are done; the hegemonic domain – norms that drive the space; and the interpersonal domain – how we relate to one another. The intersectional approach allows for an understanding of gender-responsive laws that consider multiple inequalities and locate

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4   As above.

5   https://feministinternet.org/ (accessed 28 September 2020).

6   K Crenshaw 'Mapping the margins: Intersectionality, identity politics, and violence against women of colour' (1991) 43 *Stanford Law Review* 1243.

7   PH Collins *Intersectionality as critical social theory* (2019) 3.

technology in the context of systematic oppressions, including racism, sexism, colonialism, classism, and patriarchy. As Tamale writes, 'while Africans are adversely affected by enduring legacies of colonialism and its convergence with racism, our positioning within diverse social categories based on gender, ethnicity, class, sexuality, disability, religion, age, marital status etc. means we experience oppression differently'.[8]

Feminist research is interested in how the work it does contributes to how technology may be used for transformational change in society for women, gender-diverse and vulnerable groups on the basis of class, sexuality or ethnicity.[9] The research is interested in ensuring data justice as part of the wider underpinnings of a feminist approach. Fraser's work on abnormal justice challenges us to rethink justice by focusing on 'what of justice, who of justice and how of justice as a disruptive way of thinking of justice'.[10] A data justice approach acknowledges the complexity of the new technology systems and how they can be used to discriminate, discipline and control; take into account the positive and negative potential of these new technologies and use principles useful across varying contexts.[11] The data justice approach privileges social conditions and lived experiences of those who are subject to domination and oppression in society. Our entry point is not the data system itself but rather 'the dynamics upon which data processes are contingent in terms of their development, implementation, use and impact'.[12]

2.2   Methodology: Qualitative and quantitative

The research, guided by feminist epistemologies, uses a mixed methods approach of quantitative and qualitative data to collect primary data. The complexity of the topic called for a mixed methods approach to understand the issue at hand better allowing for multiple perspectives of knowledge.[13] Secondary research was also conducted from literature and an assessment of current legislation related to digital rights – specifically

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8   S Tamale *Decolonisation and Afro-feminism* (2020) 94.

9   TS Hussen '"All that you walk on to get here": How to centre feminist ways of knowing' 2019, https://genderit.org/editorial/all-you-walk-get-there-how-centre-feminist-ways-knowing (accessed 28 September 2020).

10   N Fraser 'Abnormal justice' (2008) 34 *Critical Inquiry* 398.

11   L Taylor 'What is data justice? The case for connecting digital rights and freedoms globally' (2017) 4 *Big Data and Society* 2.

12   L Dencik and others 'Working paper: A conceptual framework for approaching social justice in the age of datafication' 2018, https://datajusticeproject.net/ (accessed 18 June 2020).

13   A Tandon 'Feminist methodology in technology research: A literature review' 2018, https://cis-india.org/internet-governance/ (accessed 28 September 2020).

privacy and data protection. The purpose was to understand the current laws in place to the extent to which they are gender-responsive and develop recommendations from there. A qualitative method of interviews was implemented in which ten individuals from the technical, academic and legal communities working on AI were interviewed who have worked on issues of gender, privacy and data protection globally and with expertise in the SADC region. A quantitative closed-ended targeted survey, drawing from the snowball sampling methodology, was used to engage activists working in the gender and sexual justice community. The survey was a tool to gauge awareness and concerns of the right to privacy and data protection considering AI uptake in South Africa for a specific group of people. In total, 25 participants engaged with the survey, which included open-ended questions. The participants represented multiple workspaces such as research, media, human rights, and sexual reproductive health rights that are ultimately focused on gender inequality issues (see table 1). They work across women and gender diverse communities which allows for an intersectional approach to understanding the issues at hand and multiple forms of knowledge and centring marginalised communities.

Table 1: Survey participants' areas of work and community engagement

Occupation	Area of engagement
Research	Women and girls, LGBTIQ community, disabled community, sex workers
Media and communications	Women and girls, LGBTIQ community, disabled community, sex workers
Gender and sexuality rights	Women, LGBTIQ community
Research	Women, women and girls, LGBTIQ community
Tech policy and human rights	Digital rights issues
Activism - Academia; research	LGBTIQ community
gender and human rights	Women, working class communities, migrants and undocumented communities
Marketing, branding and communications	Women, LGBTIQ community
Young women's rights, digital rights	Women and girls, LGBTIQ community, working class communities

Policy and advocacy, governance system	Women, women and girls, Working class communities, migrants and undocumented communities
Media	LGBTIQ community
Philanthropy, civic space (online and offline)	Disabled community, working class communities, migrants and undocumented communities
Bookseller and organiser	Women, women, and girls, LGBTIQ community, working class communities
Knowledge production	Women, LGBTIQ community
Business support services	Women, women, and girls, LGBTIQ community, working class communities
Gender and research	Women and girls
Philanthropy and human rights	LGBTIQ community
Sexual and reproductive rights	Women, LGBTIQ community
Sexual and reproductive services	Women, LGBTIQ community
Philanthropy	Women, women and girls, disabled community, working class communities, migrants and undocumented communities, children
Social media	Women, LGBTIQ community
Community manager	Women, women, and girls, LGBTIQ community, working class communities
Feminist internet rResearch	Women, LGBTIQ community, disabled community
Education - Human rights law	Women, LGBTIQ community

Ethical considerations for this study were based on feminist internet ethical research practices.[14] These ethical principles were built as part of a collaborative process for feminist internet researchers. They draw from feminist politics and values and existing ethical requirements and frameworks for researchers. Feminist ethics take into account care, power dynamics, and approach that dos not result in the extraction of data – but instead value building for participants to understand the related data harms. In thinking of consent in both interviews and surveys, the purpose of the study clearly explained the goals and purposes of the information

14   https://genderit.org/resources/ (accessed 20 September 2020).

provided for the study. Consent could also be withdrawn at any time during the study. This was communicated to all participants at the start of engagement, during the research when they were responding and when the research was complete. At the completion stage, a draft research paper was shared with participants and they had the opportunity to review the work and consent to the final outcome or withdraw consent. In thinking of accountability in ethical practices – the researcher was accountable to the research participants. This was done through open communication on any potential harm and ensuring non-identifiable information would be captured. Power dynamics were also considered during the process such as institutional power dynamics and knowledge expertise of individuals participating. The design of the methodology opted for individual engagement as a better power balance dynamic.

3   Context

In its development, implementation, use and governance, technology is embedded in a context that frames existing social injustices. In this part we frame the social context that shapes the lived realities of women and gender-diverse marginalised groups.

3.1   Regional context: SADC region with a focus on South Africa

This research focuses on developing gender-responsive laws on data protection and privacy by looking at the sub-regional SADC model and South Africa as the country in focus. SADC currently has 16 members and focuses on ensuring sustainable economic growth through cooperation and ensuring peace and security so that the region may become a competitive world economic player.[15] Gender equality forms one of the mainstreams of the region's policies with a strategy that aims to ensure equality and empowerment for women and girls. The 2008 SADC Gender and Development Protocol aims to deepen regional integration and strengthen community capacity in eliminating gender inequalities and marginalisation of women.[16]

Looking at digital development in the region – internet uptake in the region is relatively low at 22.3 per cent, with individual country uptakes ranging from 9,8 to 58,8 per cent. There are guiding legal and regulatory

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15   40th SADC Summit 17 August 2020, https://www.sadc.int/files/4415/9760/6150/40th_SADC_Summit_Brochure_2020.pdf (accessed 30 September 2020).

16   SADC 'Gender mainstreaming' 2012, https://www.sadc.int/issues/gender/gender-mainstreaming/ (accessed 30 September 2020).

frameworks to respond to digital development. The SADC Harmonised Cyber Security Legal and Regulatory Framework of November 2012 consists of three SADC Harmonised Cyber Security Model Laws that currently regulate e-transactions/e-commerce, data protection and cybercrime.[17] The Digital SADC 2027 provides a blueprint for ICT infrastructure.[18]

South Africa is the leading economy in the region, and it was ranked the second largest economy on the continent, after Nigeria, in 2019.[19] Despite this economic status, South Africa exists in the context of a triple threat of high inequality, poverty and unemployment, remnants of colonisation and apartheid. South Africa's inequality is steeped in layers of race, spatial distribution and gender, which impacts how its society experiences this triple threat.[20] Women represent approximately 51.2 per cent of the population in the country, yet there exists gender gaps in the income and labour market. Women are less likely to participate in the labour market than men.[21] The gender wage gap is stark, with women's monthly earnings remaining around 70 per cent of men's earnings.[22] The wage gap is further illustrated in the expenditure abilities of female and male-headed households. Male-headed households are better in terms of consumption and livelihood; female-headed households are at lower ends of expenditure deciles.[23]

In addition to this economic inequality, gender-based violence disproportionately affects women, girls and non-gender conforming individuals such as lesbian, gay, bisexual, transgender and/or intersex people.[24] Gender-based violence in South Africa manifests itself as intimate partner violence and/or sexual violence and is usually perpetrated by men.[25] In the current health pandemic, together with having the

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17   SADC Summit (n 15).

18   As above.

19   African Development Bank 'Southern Africa Economic Outlook' 2019, https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2019AEO/REO_2019_-_Southern_africa.pdf (accessed 30 September 2020).

20   Statistics South Africa 'Inequality trends in South Africa' 2019, http://www.statssa.gov.za/publications/Report-03-10-19/Report-03-10-192017.pdf (accessed 30 September 2020).

21   As above.

22   As above.

23   African Development Bank (n 19).

24   Safer Spaces 'Gender-based violence South Africa' 2014, https://www.saferspaces.org.za/understand/entry/gender-based-violence-in-south-africa (accessed 30 September 2020).

25   As above.

highest recorded cases of COVID-19 infections on the continent, gender-based violence cases spiked as lockdown measures were instituted.[26] To understand the context of violence in South Africa, Pumla Dineo Gqola in 'Rape – A South African nightmare' highlights the complexity and societal attitudes towards which we may see rape as a norm and excuse it and, at the same time, the toxic masculinity discourse.[27]

In terms of digital technologies, South Africa is also one of the leaders in internet use, with over half of the population (53 per cent) having access to the internet.[28] Connectivity is well developed in urban and semi-urban areas with gaps remaining in rural areas. Digital inequalities between men and women in South Africa reflect underlying inequalities in education and income, which impact access and use of the internet.[29]

3.2   Digital rights: The right to privacy and data protection

Data feminism captures a wide understanding of social injustices and digital rights, but this chapter focuses on privacy and data protection. The concept of the right to privacy and data protection on the continent has steadily progressed over the last decade with laws developing at various times at national, sub-regional and regional levels. The African Declaration on Internet Rights and Freedoms accurately notes that 'many governments in Africa lack both the technical and legal resources to legislate appropriately and the political will to provide comprehensive protection to human rights in the context of internet and digital technologies'.[30] Where data protection laws do exist, they either replicate European law models or do not sufficiently protect and promote human rights and freedoms as they concentrate more on curbing cybercrime, terrorist activities, or curtailing criticism of governments.

The revised Declaration of Principles of Freedom of Expression and Access to Information adopted in 2019 provides guiding principles

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26   The Presidency South Africa 'President Cyril Ramaphosa condemns surge in murders of women and children' 13 June 2020, http://www.thepresidency.gov.za/press-statements/president-cyril-ramaphosa-condemns-surge-murders-women-and-children (accessed 30 September 2020).

27   R Davis 'Review – Rape: South Africa nightmare' 2015, https://www.dailymaverick.co.za/article/2015-09-25-review-rape-a-south-african-nightmare/ (accessed 30 September 2020).

28   A Gillwald 'After access: State of ICT in South Africa' 2018, https://researchictafrica.net/wp/wp-content/uploads/2018/10/after-access-south-africa-state-of-ict-2017-south-africa-report_04.pdf (accessed 28 September 2020).

29   As above.

30   https://africaninternetrights.org/en/about (accessed 30 September 2020).

on freedom of expression and access to information on the internet.[31] Principles 40 to 42 focus on privacy and protection of personal information and place the onus on states to adopt laws for the protection of personal information in accordance with international human rights laws and standards. The guiding principles for privacy laws notably focus on the harmful sharing of non-consensual intimate images and prescribe that these offences should be punishable by law. The African Union (AU) also published the African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention) which contains provisions that must be adhered to once the Convention becomes legally binding.[32] However, only 14 countries have signed the document, and only eight have ratified it.[33]

The SADC Model Law on Data Protection (SADC Model Law) is a non-binding law developed as part of the Harmonisation of ICT Policies in sub-Saharan Africa (HIPSSA).[34] The South African Protection of Personal Information Act of 2013 (POPIA) came into full effect in July 2020, with a 12-month grace period for compliance. Its provisions are framed in a way that ensures compliance for regional and global business practices and provides for the collection, processing and use of personal information.[35]

Table 2 provides insights on definitions of personal and sensitive data; consent; data subjects' rights that are covered in the laws; and how gender and sexuality are identified as categories of personal information in the SADC Model Law and POPIA. Gender and sexuality concerns are not fully engaged with in these laws, suggesting that justice may only be available to heteronormative and cisgender persons. In the SADC Model Law the processing of personal data relating to a data subject's sex life and, perhaps indirectly, gender identity is authorised, an alarming

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31   The African Commission on Human and Peoples' Rights Declaration of Principles on Freedom of Expression and Access to Information in Africa 2019, https://www.achpr. org/legalinstruments/detail?id=69 (accessed 29 September 2020).

32   African Union African Union Convention on Cyber Security and Personal Data Protection 2014, https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection (accessed 29 September 2020).

33   African Union List of countries which have signed, ratified, acceded to the African Union Convention on Cyber Security and Personal Data Protection 2020, https:// au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protectionUnion (accessed 29 September 2020).

34   SADC Model Law on Data Protection, https://www.itu.int/en/ITU-D/Projects/ ITU-EC-ACP/HIPSSA/Documents/FINAL%20DOCUMENTS/FINAL%20 DOCS%20ENGLISH/sadc_model_law_data_protection.pdf (accessed 30 September 2020).

35   Protection of Personal Information Act 4 of 2013.

provision as it is to be done by an association with a legal personality or an organisation of public interests 'whose main objective, according to its articles of association, is the evaluation, guidance and treatment of persons whose sexual conduct can be qualified as an offence'.[36] This clause is a challenge to gender and sexual minorities whose lifestyle may be considered deviant and, therefore, qualify as an offence. At the time of this research, concerns or criticisms of this clause were not found within the digital rights or queer community.

Table 2: Breakdown of selected data protection principles

Data protection principles	SADC Model Law	POPIA
Definition of data	Personal information relates to data subjects that is processing of an individuals' personal data and who is identified or identifiable. Sensitive data is considered data that may reveal genetic data, biometric data, race, gender, and processing of data concerning health and sex life	Personal information means information relating to an identifiable, living, natural person, and, where it is applicable, an identifiable, existing juristic person. This also covers, race, ethnicity, language, health, and sexual orientation

36   SADC Model Law (n 34) sec 15 (4).

Consent	Consent refers to any manifestation of specific, unequivocal, freely given, informed expression of will by which the data subject or his/her legal, judicial, or legally appointed representative accepts that his/her personal data be processed. Processing of sensitive data requires written consent.	Consent means any voluntary, specific, and informed expression of will in terms of which permission is given for the processing of personal information. The processing of personal data is only allowed with the data subject's consent or their parent or guardian if they are minors.
Purpose specification	Right to notice on purpose of data processed and whether compulsory or not.	Requirement that data be collected for a specific purpose and the person to whom the information relates must be notified when their data is being processed, must be able to access information on whether their data is being collected or processed, and must be able to object to the processing of their data.
Data security	Provisions of security in data collection and processing for data controller and processor	A data subject and the data Regulator must be notified of any security breaches
Purpose limitation	Data processed must be limited to what is necessary and not excessive.	Personal information may only be processed if it is adequate, relevant, and not excessive for the purpose it has been collected for. Further processing of information must be in line with the initial purpose of collection.

Retention	Data must be accurate and kept up to date, and the data subject must be informed of the purpose which it is collected	Information must not be retained any longer than necessary unless based on exemptions
Right to erasure	Right to rectification or erasure by bringing complaints to relevant authority free of charge	A data subject has the right to have their personal information corrected or deleted upon request
Right to be informed	Right to consent through an agent and right to object to processing	A data subject has the right to be notified when their personal information has been collected and is being processed.
Provisions for automated decision making	-	A data subject may not be subject to a decision with legal consequences solely on the basis of automated processing of personal information

3.3   Artificial intelligence discourse in the region

The discourse on AI in the region has been that of a developmental and economic growth paradigm based on the idea of the fourth industrial revolution.[37] Birhane describes the discourse of AI-based innovations in some circles being taken up with much enthusiasm as follows: 'Mentions of "technology", "innovation" and AI continually and consistently bring with them evangelical advocacy, blind trust and little, if any, critical engagement. They also bring with them invested parties that seek to monetize, quantify and capitalise every aspect of human life often at any cost.'[38]

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37   S Sanyal 'AI to change the world in our lifetime' 2018, https://digitalskillsglobal.com/blog/ai-to-change-the-world-in-our-lifetime (accessed 30 September 2020); T Marwala 'Fourth industrial revolution: Let's all work in a synchronised manner' 2019, https://www.uj.ac.za/newandevents/Pages/Fourth-Industrial-Revolution-Let%E2%80%99s-all-get-to-work-in-a-synchronised-manner.aspx (accessed 18 January 2020).

38   A Birhane 'Algorithmic colonisation of Africa' (2020) 17 *SCRIPTed* 394.

AI discourse often focuses on (i) its capabilities – the growth of economies, increase in production, reduction in labour costs, and so forth, and (ii) the regulation of data processors and data controllers and how people's data can be protected in order to give effect to the rights of privacy and access to information, which are protected by most African constitutional decrees.

Figure 3: Mapping of adoption of AI in Africa[39]

Those extensively engaging with AI are from the data science community, governments, the business sector, and lawyers, but the insights of civil society are few and far in between. As seen in figure 3, there is a proliferation of AI initiatives in the SADC region. In South Africa, AI development takes place in response to increased efficiency in industries, by cities in smart city programmes, and in use by non-profits as well.[40] An interview participant in the study pointed out that the sector is more responsive to business needs than societal issues.[41]

The focus on growing Africa's tech capacity has been marked by initiatives emerging to support a growing science, technology, engineering, and mathematics (STEM) workforce. Google established one of the first

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39   https://briterbridges.com/innovation-maps (accessed 15 June 2020).

40   South African AI initiatives mapped as part of this project, https://mydatarights. africa/wp-content/uploads/2020/12/AI-Initiatives-2020.pdf (accessed 15 June 2020).

41   Respondent from the Technical Community interviewed 16 June 2020.

schools dedicated to AI in Ghana, led by Moustapha Cisse.[42] In Kigali, Rwanda, the African Institute for Mathematical Scientists (AIMS) is running a one-year Master's degree programme in partnership with Facebook and Google to create the next generation of tech leaders.[43] South Africa has the Centre for Artificial Intelligence Research, a university consortium focused on building research on AI.[44] Communities such as the Deep Learning Indaba have also emerged, which focuses on strengthening machine learning and AI in Africa. Their mission statement states they 'work towards the goal of Africa being not only observers and receivers of the ongoing advances in AI, but active shapers and owners of these technological advances'.[45]

However, as these efforts escalate, so does the gender gap in STEM fields, which is an issue that impacts those participating in these processes. The 2018 AI Index reported that women are severely underrepresented in university faculties and, consequently, as candidates for jobs in the AI sector.[46] Women account for only 28 per cent of science researchers while men dominate at 72 per cent.[47] As Leavy points out, the over-representation of men in the design of AI and technologies could quietly undo decades of advances in gender equality.[48] In addition, the way in which AI is gendered often frames women in subservient positions such as using female names in voice recognition systems and using 'female personas' as digital assistants.[49]

Policy conversations on AI-based innovations also focus on ensuring economic gains through the creation of employment opportunities,

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42   K Lijadu 'How a Master's programme in machine intelligence is trying to close an African tech gap' 2018, https://qz.com/africa/1344552/google-facebook-back-african-machine-intelligence-program/ (accessed 18 June 2020).

43   N Munyampenda 'AIMS launches African Master's in Machine Intelligence' 2018, https://nexteinstein.org/aims-launches-first-of-its-kind-african-masters-in-machine-intelligence-at-rwanda-campus/ (accessed 18 June 2020).

44   https://www.cair.org.za/ (accessed 30 September 2020).

45   Deep Learning Indaba, https://deeplearningindaba.com/2020/ (accessed 15 June 2020).

46   Artificial Intelligence Index *2018 Annual report*, http://cdn.aiindex.org/2018/AI%20Index%202018%20Annual%20Report.pdf (accessed 30 September 2020).

47   https://www.aasciences.africa/news/bridging-gender-gap-women-science-africa (accessed 30 September 2020).

48   S Leavy 'Gender bias in artificial intelligence: The need for diversity and gender theory in machine learning' (2018) Conference Paper 1st International Workshop on Gender Equality in Software Engineering, https://doi.org/10.1145/3195570.3195580 (accessed 15 June 2020).

49   P Fung 'This is why AI has a gender problem' 2019, https://www.weforum.org/agenda/2019/06/this-is-why-ai-has-a-gender-problem (accessed 18 June 2020).

ensuring that citizens are upskilled to be ready for the revolution, being innovative enough to attract global business as well as being compliant enough for global trade. SADC is looking at AI in relation to the model law on the digital economy in development.[50] In South Africa, the policy focus is on AI and data diversity in different sectors as well as being responsive to global developments by building capacities for engagement.[51] The focus on sector development has seen engagement from diverse departments, including trade, industry and competition, and communication and digital development. In its 2019 White Paper, the Department of Science and Information (DSI) focused on how emerging technologies, including AI, may be used for inclusive economic growth by capturing policy commitments to address poverty, inequality and unemployment.[52] South Africa also put together the Fourth Industrial Revolution Commission (4IR Commission) to lead the way in the take up of technology and develop policies prioritised on inclusive economic growth.[53] The 2020 National Planning Commission report on Digital Futures assessing South Africa's readiness for the fourth industrial revolution provides insight into the readiness and the necessary policy interventions required to use these technologies for development.[54] Despite much of South Africa's AI and data-related policies and legislation being at a formative stage, the country's existing regulatory framework has relevance to both the current governance of data and AI, as well as the conceptualisation and interpretation of new policies in this space.

Critics have pointed out the current risk of perpetuating digital disparities and inequality in the discourse around AI.[55] Digital disparities in gender, for example, illustrate the inequality that women experience at the intersection of poverty, gender and unemployment. Based on the information we have on people's experiences with digital technologies

50   G Razzano 'RIA and SADC Parliamentary Forum co-host workshop on digital economy' 2020, https://researchictafrica.net/2020/09/28/ria-and-sadc-parliamentary-forum-co-host-workshop-on-digital-economy/ (accessed 30 September 2020).

51   R Adams and others 'AI policy series 1: Can AI and data support a more inclusive and equitable South Africa?' (2020), https://policyaction.org.za/sites/default/files/PAN_TopicalGuide_AIData1_IntroSeries_Elec.pdf (accessed 15 September 2020).

52   https://www.dst.gov.za/index.php/ (accessed 20 September 2020).

53   https://www.gov.za/documents/ (accessed 28 September 2020).

54   National Planning Commission 'Digital futures: South Africa's digital readiness for the fourth industrial revolution' 2020, https://www.nationalplanningcommission.org.za/assets/Documents/ (accessed 15 September 2020).

55   A Gillwald '4IR in SA is too important to remain the domain of the elite' 2019, https://www.businesslive.co.za/bd/opinion/2019-07-04-4ir-in-sa-is-too-important-to-remain-the-domain-of-the-elite/ (accessed 14 June 2020).

'these challenges in a data driven environment then represent a classical human development challenge'.[56] Given varying levels of gendered inequality, women may be the last to capture the benefits of the fourth industrial revolution.[57] Therefore, replicating existing inequalities, new social injustices and unequal power dynamics will impact the differences in experiences of these new technologies.[58]

4   Gendered harms from AI-based systems

The reproduction of power asymmetries through automated decision-making systems shows that the rationality of computers or of humans programming the machines does not always take context into account.[59]
As the implementation of AI systems takes place, the question of whether the region is ready to harness the opportunities they present while, at the same time, ensuring safeguards for human rights and, by extension, digital rights becomes critical. Socio-economic status, gender, ethnicity and geo-location all influence the way in which our data is treated in different contexts and influence decisions made from that context. In already unequal societies, AI and machine learning technologies may further perpetuate stereotypes and amplify injustices. In this part the gendered concerns are highlighted and the extent to which the SADC Model Law and POPIA may address these issues are discussed.

4.1   Data concerns – The right to privacy and data protection

The focus on AI harms begins with concerns around data through a feminist lens. While governments and technical communities are seeking or collecting enormous amounts of data to better their technologies, for users, concerns are around control and agency over their data. As the feminist principles of the internet highlight, agency is important to establish an internet that would transform gendered inequalities in society. The feminist principle of privacy and data focuses on the ability to have control over your information and to understand how it is being used, reject the 'for profit only' focus on data use and manipulative behaviour

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56   A Gillwald 'Data, AI and society' 2020, https://researchictafrica.net/2020/03/10/data-ai-society/ (accessed 30 September 2020).

57   R Adams 'The fourth industrial revolution risks leaving women behind' 2019, https://www.weforum.org/agenda/2019/08/the-fourth-industrial-revolution-risks-leaving-women-behind/ (accessed 18 June 2020).

58   As above.

59   S Mhlambi 'From rationality to relationality: Ubuntu as an ethical and human rights framework for artificial intelligence governance' (2020) *Carr Centre for Human Rights Policy* 2.

such as targeted advertisements.[60] Most narratives around data focus on it as if it were an entity that exists outside our personhood; however, data is a part of us, and our experiences of data and privacy embody the concept of 'data bodies'.[61] Often, the language used in data protection laws, such as 'data subject', has a disembodying effect.

The right to privacy from a gender perspective is particularly important as 'with gender stereotypes comes problems of privacy invasion and abrogation'.[62] Allen frames this as 'un-easy access', which helps in highlighting the way in which access to the internet may be problematic for women and gender-diverse people as the continuation of existing power dynamics and control from offline realities.[63] Power dynamics and control over data are seen in the disregard for agency as Privacy International's work highlights how period tracking applications collected and used intimate data and personal information for their monetary gain via third-party exchanges without informing their users.[64]

Consent often is key when thinking of data and data protection for the rights of people, but when located in the current context, the question becomes – do people have the power, ability, and capacity to say no?[65] The SADC Model Law and POPIA focus on consent with regard to personal information being a specific informed expression. The SADC Model Law furthers consent in that it must be freely given and unequivocal – which provides language on the extent of what consent would be. In the context of inequality in the region, data concerns with regard to privacy and data protection are about people's capabilities and freedoms to achieve this and their capacity to aspire to privacy in constrained environments.[66]

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60   'Measuring digital development' (n 1).

61   A Kovacs 'When our bodies become data, where does that leave us?' 2020, https://deepdives.in/when-our-bodies-become-data-where-does-that-leave-us-906674f6a969 (accessed 28 September 2020); T Wang 'You are not your data but your data is still you' 2020, https://deepdives.in/you-are-not-your-data-but-your-data-is-still-you-b41d2478ece (accessed 30 September 2020).

62   A Allen 'Gender and privacy in cyberspace' (2000) 52 *Stanford Law Review* 1175.

63   As above.

64   https://www.privacyinternational.org/ (accessed 20 August 2020).

65   P Pena & J Varon 'The ability to say no on the internet' 2019, https://medium.com/codingrights/the-ability-to-say-no-on-the-internet-b4bdebdf46d7 (accessed 30 July 2020).

66   P Arora 'Decolonising privacy studies' (2019) 20 *Television and News Media* 368.

4.2   Gender harms

The question often raised is what makes AI harms gender specific in a society of existent inequality. This part provides narratives around the specific privacy and data related harms for women and gender-diverse people in these contexts of inequality. The SADC Model Law and POPIA do not unpack the gender harms generally related to privacy violations and the language used in the laws is not gender representative. Gender is not fully engaged with as a possible category of harm; rather, it is sex life that is considered sensitive data. Article 15(4) of the SADC Model Law has already been flagged as a challenge to sexuality as it allows for processing information relating to a data subject's sex life if their behaviour is deemed harmful to society. In countries under the SADC region that have legal ramifications against sex life that is deemed inappropriate – often those of gender-diverse people – this raises concerns over how this information may be used for persecution. The model law does not define what would be considered 'harmful' to society. This area of work needs to be engaged within countries that may be developing their laws based on the SADC Model law.

South Africa has constitutional provisions against discrimination on the basis of sex or gender, the language in the POPIA contains gendered pronouns that are discriminatory to people who do not identify as 'he' or 'she'. The use of gender-inclusive legal drafting is not a new phenomenon. In South Africa, the Cybercrimes and Cybersecurity Bill [B 6 – 2017 is one of the first pieces of forthcoming legislation to incorporate the usage of gender-diverse language. The select committee reviewing recommendations of the Bill in 2020 agreed to '(a) altering the tone of the Bill to reflect non-binary language as required by considerations of gender-neutrality, equality, dignity and identity'.[67] This signifies the move from gender-neutral language to gender-inclusive language and may be built into how the data protection and privacy implementation may include gender-inclusive language.[68]

The challenge in this study is that most of the examples of gender harm found exist in European and American contexts. There are few research pieces on the societal impact of this work. Loss of privacy, discrimination by gender or health, data breaches, and harms due to

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67   Parliamentary Monitoring Group -ATC200617: Report of the Select Committee on Security and Justice on the Cybercrimes Bill [B 6B – 2017] (National Assembly – sec 75) (introduced as Cybercrimes and Cybersecurity Bill [B 6 – 2017]) dated 11 June 2020, https://pmg.org.za/tabled-committee-report/4209/ (accessed 30 July 2020).

68   Arora (n 66).

machine or algorithm bias form some of the injustices in societies driven by data.[69] Race, ethnicity and biometric personal information are categories of protected sensitive personal data that are prohibited from processing in the SADC Model Law and POPIA. However, the harms that would need protection from are missing in legislation. For example, both laws do not mention privacy breaches and the subsequent use of technology to develop or distribute non-consensual images. Table 4 provides examples of some of the related harms this research has mapped over the course of the year from the European and American contexts.[70]

Table 3: Gender-based harms related to artificial intelligence-based systems

Harm	Harm basis	Harm occurring
Discrimination	Social bias	AI relying on algorithms learnt from real-world data can inadvertently reinforce existing social biases.
Discrimination	Gender, weight, skin tone	The body imaging technologies now used in many airports around the world to screen passengers are often represented as objective and neutral, yet the aim of using such technologies is to police non-normative bodies which means that some bodies are more likely to be treated as a potential threat.
Publication and sharing of non-consensual explicit material	Gender	AI-generated fake videos (deep fakes) are becoming more common and, as with everything, women are being disproportionately affected by them as seen through deep fake porn.
Harassment	Malice, gender, gender identity	The use of targeted anti-LGBTQI+ ads on LGBTQI+ online platforms is malicious and psychologically harmful

69 J Redden & nd J Brand 'Data harm record' 2017, https://datajustice.files.wordpress. com/2017/12/data-harm-record-djl2.pdf (accessed 15 May 2020).

70 A mapping of gender harms related to artificial intelligence-based systems, https:// mydatarights.africa/wp-content/uploads/2020/12/Data-Harms_2020.pdf (accessed 15 December 2020).

Stereotyping	Automated discrimination	The use of gendered 'voices' and 'responses' and the use of gendered pronouns and syntax tend to perpetuate harmful gender stereotypes.
Racism	Racial bias	AI technologies have also been guilty of racism - from misidentifying some of the most iconic black women in the present day, such as Michelle Obama, Serena Williams, and Oprah Winfrey, to labelling black people in images as gorillas, which is a racist trope.
Economic harm	Gender bias	There is evidence of targeted ads where algorithms are perpetuating the pay gap by targeting listings for better-paid jobs towards men.
Surveillance	Unauthorised surveillance	Contrary to international human rights law, governments are engaging more and more in mass surveillance, mostly merely because they can.
	Ethnicity and race	A range of interacting characteristics – race, ethnicity, religion, gender, location, nationality, socio-economic status – determine how individuals become administrative and legal subjects through their data and, consequently, how this data can be used to act upon them by policymakers or commercial firms. The possibility of being identified as a target of surveillance multiplies depending on the number of categories of interest one belongs to.

4.3   Perceived concerns of data harms

As there is very limited information on the experience of these harms on the African continent, in the survey AI scenarios were presented to participants, and they were asked to reflect on how these harms would play out in the South African context. The collection and processing of personal data is of great concern in terms of who has access to this

information (24 out of 25); the way in which this information will be used (22 out of 25), and where the information will be stored and processed (21 out of 25). In this context of data collection, processing and use, participants were concerned about how this data may be used to challenge their safety; the monetisation of this information; who has access to this information, especially when it is sensitive to sexual rights or sex work and discussions in the LGBTQI community. As one of the respondents pointed out: 'Harassment and the usage of our data [is a concern]. Privacy is of most importance in the work we do because we deal with people who are seeking terminations of pregnancy in a society with stigma. They want their information to be private and we use social media to do our work' (survey participant 1, 2020).

The current laws have provisions on data subjects' rights to be informed about their data collection, processing and use. The limitation with AI, however, is that the data sets are built up of non-identifiable data – it is this aggregate data with an impact on communities and individuals.

The second scenario focuses on monitoring activities leading to profiling that exposes one to targeted advertising. In this instance, all participants were aware of this activity and privacy and data protection was a great concern. Different concerns emerged because of monitoring online and this was related to the type of information they worked with – sensitive information or planned activities. In addition, activists were greatly concerned with how their location data seems easily available, influencing targeted advertising across platforms, yet this could mean they could also be targets for those against their work.

The participants raised concerns about how their location could be determined and the targeted advertising content they received based on how they had been profiled. One respondent pointed out that because of working on gender identities and sexualities, the advertisements or spam email they received was often in the form of harassment and/or violence. The adverts also perpetuate harmful stereotypes and prejudices. One of the most interesting insights was related to the access of reproductive rights – when women search for abortion services, it was pointed out that they seem to be directed to illegal abortion service providers – which disturbs access to safe abortions. POPIA, in section 69, focuses on the prohibition of targeted direct marketing by means of unsolicited electronic communication, but profiling for targeted advertising is not covered,[71] while the SADC Model Law places an onus on the data controller

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71   https://popia.co.za/ (accessed 30 September 2020).

and processor for people to be informed of the right to object to direct marketing.[72]

The third scenario focused on discrimination. The example highlighted how algorithms perpetuate the gender pay gap by showing better-paying jobs to men and employed the example of Amazon's hiring tool that was biased against women. Half of the respondents were aware that this was an issue. The majority, 18 out of 25 participants to be precise, were concerned about privacy and data protection in this context. As this was an example based in a different context, 22 out of 25 participants indicated this as important in the cases of South Africa. Race, ethnicity, location, citizenship, health status, digital connectivity, and gender were raised as potential points of discrimination in South Africa. These are personal information categories protected against discrimination. However, discrimination through the use of automated decision-making systems would have an impact on access to opportunities when one does not fit a particular profile. Five respondents raised racial and gender discrimination in accessing financial services as a major concern related to algorithm discrimination. One of the participants noted that 'it has been reported that this is a problem in the banking sector, where AI is racist and sexist. Black women will thus stand no chance when applying for loans. I would be surprised if one's geographical location does not automatically exclude many from opportunities. Of concern are people from the rural areas, townships, informal settlements, and crime-infested areas' (survey participant 2, 2020).

The categorisation of data into sensitive and non-sensitive data is a recurring feature in most data protection legislation. Yet, through processes such as profiling, detailed and highly-comprehensive profiles can be developed from what is seemingly unimportant or 'non-sensitive' data. Profiles are used to make automated and consequential decisions such as hiring, credit scoring or national security. Therefore, as much as data regulation allows you to object to the use of your data or the right to know how your data is being used, it cannot account for issues emerging with AI.

Section 71 of POPIA provides for people not to be subject to the automated processing of personal information intended to provide a profile of such a person, including their performance at work or their creditworthiness, reliability, location, health, personal preferences or conduct. This clause is important in addressing the issues raised of discrimination and bias concerning access to South Africa's financial

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72   SADC Model Law (n 34).

services. However, there is a need for the assessment of automated processing of personal information and transparency reports from organisations that make use of these systems and how they impact gender and sexual minorities.

The fourth scenario focused on surveillance by drawing on the roll-out of closed-circuit television (CCTV) or surveillance cameras and facial recognition systems in South Africa. There was a high level of awareness of this roll-out, and 73 per cent of the participants found this to be a relevant issue of privacy and data. Two issues were highlighted as the most significant for participants – 20 of the participants were concerned about how the technology may be used to invade their privacy and, at the same time, 16 participants saw the usefulness of surveillance cameras to address crime. This issue was highlighted as a need to balance security and privacy. Other issues of concern in the South African context connected to surveillance were bias, discrimination and misuse of data for purposes of profiling. This was a concern in a country where police brutality is rife – this technology could be used for further discrimination and violence towards individuals. Race was a big underlying concern as these technologies may be used to profile black people in areas of wealth as un-belonging and, therefore, criminal. One participant indicated that 'crime is associated with mainly blacks, in most instances viewed to be a result of foreigners and the collection of these images might be reinforcing a stereotypical approach to crime fighting. Second, I have no idea who is collecting and analysing the footage and what is the period of data retention. In the absence of enforcement provisions and powers of the Information Regulator until 2021, it means that there are few remedies at all' (survey participant 3, 2020).

The final fifth scenario presented issues of privacy and data protection in relation to gender identities and sexual orientation. The example used focused on how a privacy breach may expose someone's sexual orientation and the impact of location data being used to locate victims of gender-based violence. All the participants were aware of this as an issue. Ninety per cent of the participants were concerned about their privacy in this context and found it relevant to their work area. For 24 out of 25 of the participants this was a concern and they wanted to know how to address this issue. The concerns with privacy breaches were related to how this information may be used. An example given was how women's health information, if exposed to a data breach, may be used for problematic targeted advertisement. One of the participants indicated that a 'privacy breach can also make someone susceptible to revenge porn, online initiated human trafficking and kidnappings of women, children and sexual minorities'.

Key contextual issues that were recurring references were race, economic status, homophobia and gender-based violence. The issues around bias, discrimination and increased surveillance were raised as likely to be of concern as well. This raised questions of security breaches and their online safety given the sensitivity of their work. Safety and security concerns were raised in the context of the high levels of gender-based violence in South Africa. Despite the rights of the lesbian, gay, bisexual, transgender, queer/questioning and intersex (LGBTQI) community being protected, bias and discrimination will continue in these technologies with the reality of societal homophobia. In this instance the question of the extent to which anonymity can be guaranteed online is important.

As AI-based solutions emerge, the concern with regard to gender is not necessarily a direct identification but rather the emerging profiling and the targeted content based on that gendered profile. Even when data may be de-identified, algorithms may still be able to determine gender and sex life. Therefore, it is important to take necessary security safeguards that explicitly address these issues. Privacy impact assessments and other mechanisms of accountability would need to ensure that data analytics do not lead to inferences of individuals or groups related to gender leading to discrimination.

5 A gender-responsive policy action and the role of civil society towards privacy and data protection

This research provides a contextual understanding of AI, privacy and data protection with regard to gender. Civil society has a role to play in ensuring a gender-responsive privacy and data protection legal framework that ensures justice. The limitation of privacy and data protection laws stems from a general need to engage with the opportunities and challenges of AI-based innovations and, at the same time, a lack of general engagement with gender and privacy issues – a space that the civil society and activist community with which this research engage actively focus on. This part responds to the main research question by providing recommendations on gender-responsive law and policy from a feminist perspective to ensure data justice.

The context of gendered inequality based on income, education and gender-based violence, for example, highlights a need for more commitment on the impact AI would have on marginalised groups. Online violence is an issue for privacy and data protection and requires frameworks that address gender-based violence as a continuum of online-offline harms.[73] There is

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73   Parliamentary Monitoring Group (n 67).

the need for the right to privacy and data protection to be fostered in a way that defines sensitivities and harms associated with intersex, transgender, and diverse communities.[74] This factors in data feminist principles of rethinking binaries and ensures justice by basing law reflective of lived experiences. Civil society actively engaged in the work on social justice issues may play the role of nuancing context on gendered injustices and how the law may be implemented cognisant of these issues. Civil society organisations may also collaborate with the academia to document harms and conduct research in order to build the necessary evidence base.

The design and implementation of the law should take into consideration the experience of injustice in different domains of power, which means that, even when the above categories are recognised, they do not take on a homogenised approach to ensuring privacy and data protection. Civil society and activists that work in these spaces may serve as friends of the policy makers and expert advisors to indicate the right language and approach to embedding safeguards for these issues into law and policy. They would also need to be resourced to build capacity to understand gender issues.

A responsive law also considers power dynamics, control and agency. This is a challenge in AI-based innovations where one is aware of privacy violations yet is uncertain on how to exercise these rights, leading to a digital inequality paradox. The ability to exercise your rights online depends on awareness of the issue, digital skills and literacy, and being able to use the internet meaningfully and understand how your data will be used. The concern is that without the ability to do this, one loses their agency. This requires placing an onus on those who collect the data to bear the cost and burden of explaining how the data is used in a way that is unequivocally understandable and considers accessibility barriers as well. The right to be informed needs to extend to use of AI – the significance for the envisaged processing, the challenges associated with it and the safeguards connected with its processing. The success of a responsive law would require working with civil society in creating awareness and capacity-building campaigns with marginalised groups so that they may be able to advocate for their rights. Adequate resourcing from the state or the donor community is important for this to be successful. The more people are informed about their rights, the quicker it is to flag data abuses and violations and the more input from multiple sectors on how to improve data protection.

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74   United Nations Report of the Special Rapporteur on the right to privacy (2018), https://www.ohchr.org/en/issues/privacy/sr/pages/srprivacyindex.aspx (accessed 20 May 2020).

Auditing systems of harms are crucial, and gender should be a key consideration. Data protection impact assessments that consider gender dynamics would also be an important tool for ensuring data justice. This involves identifying, evaluating and addressing the impacts on data subjects and their personal data of a project, policy, programme, or other initiative that entails processing such data.[75] In addition, states and non-state parties could provide easy access to data profiles and monitoring for gender bias.[76] Most algorithms are like black boxes, which impacts understanding of what is provided or incorporated. Principles of fairness, explainability, auditability, responsibility and accuracy should be infused. If this is done, it might reduce elements of bias. Automated decisions should also be explained, especially in financial-related transactions, as they may perpetuate inequality and exclusion when based on historical data. Public awareness campaigns must be conducted regularly and civil society should be meaningfully engaged in developing these systems of review. Civil society and activists are in a great position to help draft ethical conducts and privacy policies with research institutes, given their engagement and connection with affected groups. However, power dynamics may challenge the meaningful engagement of civil society in the process. Therefore, it is important to have adequate resources so that they make independent decisions without any interference from the technical community.

6   Conclusion

Placing gender and sexuality at the forefront of privacy and data protection ensures gender-responsive laws and policies. The current inequality in society affects women and the gender diverse communities adversely and extends to the digital space. The narrative of AI for development and economic growth may overlook the reality of gendered inequalities and increase them further. By taking on a feminist conceptual framework, this research has highlighted the challenges specific to women and gender-diverse people in society and how this is a continuum with digital technologies. The development of AI follows the trend of excluding gender diverse people in developing and implementing these innovations. While it is commendable that the right to privacy is recognised and data protection measures are in place, the limitations on how gender is applied to the policies indicate the need for more engagement of gender in policy and law development. The review of gender-specific harms related to privacy and data protection shows that a heteronormative

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75   https://www.icrc.org/en/data-protection-humanitarian-action-handbook   (accessed 28 September 2020).

76   (n 74).

and homogenous approach to policy is insufficient. Specific to AI, the awareness and concerns drawn from the survey indicate a concern in the processing, collection and use of data and the subsequent harms resulting from the algorithm nudges on these platforms.

To be gender-responsive eminently means to design and implement policies that take into account the gendered realities of the society we live in and ensure that injustices are not replicated as we race towards digital development. This research provides a snapshot of these issues and starting points of actions led by civil society to having gender-responsive laws responsive to the needs of marginalised communities.

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