

The Human Right to Democratic Control of Artificial Intelligence

Report to the
Australian Human Rights Commission
on the “Human Rights and Technology:
Discussion Paper”

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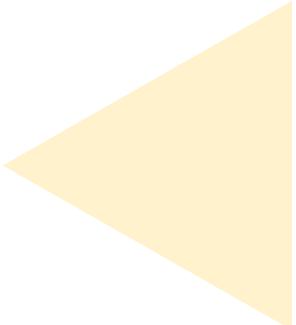
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Executive Summary

- Those who control artificial intelligence (AI) are amassing power over society on a scale that is unprecedented in human history. This trend is exacerbating inequality and worsening structural racism, sexism, and classism. This report makes recommendations on how to pursue truly democratic control over AI for the benefit of all humanity and to avoid an increasingly authoritarian future.
- In the Age of Information, the Internet, data, and data collection have become almost omnipresent in the lives of individuals across the world. Due to the intense pace of technological development, there is a lag in the adoption of new laws to regulate innovations in AI. Without a democratically determined legislative framework, AI technology will exacerbate massive inequalities. Citizens' assemblies with real power are needed to control the future of AI.
- Few governments have considered the legal, social, and economic implications of a world that is powered by AI without democratic oversight and control. There is an urgent need for change to protect marginalized communities and prevent unprecedented power from amassing in the hands of the few at the expense of the many. Until these changes are made, these marginalized communities are at risk of their data being used against their consent in ways that could bring them harm.
- This report commends the Australian Human Rights Commission for its acknowledgment of the risks that AI poses and offers recommendations for how the Commission can achieve its goal of regulating AI to protect human rights in an equitable, ethical, and democratic way.

Recommendations

1. AI should be controlled democratically
 - 1.1 The technological community has proven itself historically incapable of meaningful self- or co-regulation. Profit incentives ensure that the monopolistic corporations currently in possession of consumer data will not take any action to protect it. For this reason, legislative action is the first necessary step to closing the regulation gap regarding AI technology.*
2. Democratic control of AI law and policy should be conducted via Citizens' Assemblies
 - 2.1 Ordinary legislative processes are not enough to protect diverse interests*

2.1.1 By all accounts, legislative bodies do not always accurately represent their people. Consequently, legislative output tends to represent elite-focused viewpoints and can overlook the needs and interests of the population as a whole and marginalized communities in particular.

- For example, women, as half the population, must have half the legislative authority over AI policy and regulation; however, this right is widely being violated.

2.1.2 Those holding legislative office can benefit from overlooking AI regulation. Not only do the corporations controlling consumer data have the ability to lobby and to provide financial incentives to do so, political organizations have the ability to capitalize on their collected consumer data to mobilize voters, raise funds, and earn support for their causes.

2.2 *Citizens' "consultations" are not enough representation in the legislative process*

2.2.1 Citizens' consultations, while a manner of involving the public in the creation of AI-related policy and creating more transparency than ordinary processes, do not go far enough in citizen participation. Consultations do not ensure that the diverse perspective of the public is given the weight it is due. There exists no binding measure to ensure that the recommendations of the public are honored. There needs to be real citizen power over AI-related law and policy, and consultations do not go far enough.

2.3 *Citizens' Assemblies allow a diverse subsection of the community to determine how their own data is regulated*

2.3.1 By establishing a Citizens Assembly to create, regulate, and oversee laws regarding AI technology, we would enable citizens to take back ownership of the information that corporations have collected from them. Designed correctly, this Citizens Assembly will be a highly representative subsection of the community, drawing from all genders, ages, ethnicities, classes, and abilities in ways proportionate to the population. Doing so will allow a more diverse perspective on the impacts and implications of AI policy and ensure that the policy meaningfully addresses the needs of the population.

- 2.3.2 Historically, Citizens' Assemblies have been an effective mechanism of deliberative democracy in recent years. In Ireland, the United Kingdom, the United States, and Australia, they have been assembled to act as the public's voice in response to niche and currently relevant issues.
 - 2.3.3 Studies discussed in this report have shown that Citizens' Assemblies can and do offer considered policy advice on complex issues and will provide legislation with the necessary perspective from those who are not fully represented within the current legislature.
- 3. Incentivize accessible digital technology for all communities - including but not limited to persons with disabilities.
 - 3.1 Although the Australian Report discusses in detail the necessity for providing accessible technology to individuals with disabilities, other vulnerable populations such as the economically disadvantaged, those who are not confident digital users, children, and the elderly have additional accessibility concerns in regard to technology. Codified human rights such as the right to work, the right to education, and the right to freedom of expression and opinion may be put in jeopardy if these considerations are not met.
 - 3.2 There is no single vulnerable population that inaccessible digital technology affects; creating technological accessibility should be viewed through the lens of every vulnerable population to ensure that AI-related policy meets their unique needs.
- 4. Require stakeholders in the technology sector to undergo mandatory education regarding the intersection of AI and human rights.
 - 4.1 The Australian Report discusses how the STEM field can better create accessible spaces for individuals with disabilities.¹ However, every government must do more to ensure that industry stakeholders are educated about how their products can negatively impact the rights of their consumers and how they can prevent them from doing so in the future. Particularly regarding the rights of democracy, participation, and non-discrimination, this education would help ensure that these rights are protected instead of being put at risk. Furthermore, it would explain how stakeholders can make the STEM field more accessible to those in vulnerable communities.

5. Key Recommendations:

- 5.1 AI-related policy must be democratically controlled.
- 5.2 That democratic control needs to be via Citizens' Assemblies to end elite capture and secure equitable power for women, marginalized peoples, and the poor over AI.
- 5.3 The government must ensure accessible digital policy for all vulnerable populations, including but not limited to persons with disabilities.
- 5.4 The government needs to institute mandatory human rights education regarding AI and the right to democracy, the right to participation, and the right to non-discrimination for those in the STEM field.

2. AI is an Existential Threat without Democratic Control

2.1 Background

- 2.1.1 Global society dominated by "developed" states is one controlled by technology—whether seen or unseen. In fact, according to Professor Shoshana Zuboff, data is collected from everything that someone does, where you walk, what you buy, your typos—anything and everything imaginable.² This data, called “residual data” by Zuboff, is where the real danger lies, because you can do nothing to control or stop it. This means that any company that is collecting data, Google, Microsoft, Facebook, etc., can predict when you are going to be hungry, when you will need more toilet paper, and even perhaps sway your vote.³ This ability, along with dangerous facial recognition technology pose a direct threat to democracy and human rights internationally. It is for these reasons that it is so important for AI to be regulated strictly from the highest levels down.
- 2.1.2 Facial Recognition and data collection on the surface seem to be harmless, perhaps even helpful resources. Facial recognition has been used by law enforcement to help track down criminals as well as for general surveillance.⁴ Along with being an invasion of one's privacy, it also poses a threat in the hands of anyone with ill intentions to use private information against the person.⁵

- 2.1.3 At the current moment, the Australian Commission's Report faces a “regulatory lag,” meaning that the technology is becoming available and new developments are happening so quickly, that regulation cannot keep up.⁶ At present, only a few technological corporations hold near-monopolies over data collection—and there is very little oversight into how they handle that data⁷.
- 2.1.4 This is what allowed the Facebook-Cambridge Analytica scandal of 2018 to occur.⁸ While The Australian Report sets out what could be the beginning of guidelines for AI regulation, it completely glosses over any mention of the dangers of allowing international tech giants to control a vast majority of AI.
- 2.1.5 This means that while there seems to be an understanding in the paper of some potential dangers of AI, it blatantly ignores the prominent threats to human rights initiatives and democracy if AI is left unchecked, such as, dangerous targeted political ads, unrepresentative democracies, and blatantly unethical usages of facial recognition. This section is dedicated to critiquing the holes in the Australian Report and making furthering recommendations, such as more formal regulation and potential sanctions on corporations not complying with human rights requirements.
- 2.1.6 The United States is having issues maintaining elections free from AI influence, and as one of the initial models for democracy, it does not bode well for other electoral states—meaning that all elections could be in danger if AI continues unregulated.⁹ As Freedom House reports, 2018 marked the 13th consecutive year that they have noted a decline in global freedom.¹⁰ With the rise of popularity in connection to this report, AI threatens rising democracies, as well as freedom and human rights in countries with other regimes, such as China. Reports have noted that the Chinese companies have been putting their interests first and lobbying their ideals on AI to the UN¹¹. If their efforts are successful, a turn in the UN policy from protecting human rights and democratic values, to companies’ best interests.

2.2 What The Australian Report says Re: Human Rights and Democratic Threats from Monopolistic Corporations Using AI

- 2.2.1 The Australian Report is an important beginning framework of what needs to be done regarding keeping the public safe from AI. Chapter 3 and 4 in particular offer important insights into how AI must be used ethically to maintain and even potentially promote human rights initiatives¹². These are critical points, however, as the Chapter 4 title states, they are but “frameworks”. While they lay out grounds that ideally companies would follow, they stress so much of “self-regulation” of companies, even making that the basis of a pyramid of accountability, with formal legislation at the top.

- 2.2.2 We need to start thinking about enforcing regulations to corporations who work with AI. While only a fictional short film, “Slaughterbots” by Stewart Sugg provides a glimpse into a dangerous future we could be facing.¹³ The film shows how data collection and facial recognition software could be paired with the use of drones to carry out assassinations of political targets, or anyone who threatens to disagree with those in power. These drones could be used by anyone, and there would be virtually no way to stop them. While this is a disturbing image, the most shocking part comes at the end when Stuart Russell, an AI expert tells us that this is technology we already have¹⁴. This is why there needs to be intense regulations regarding any kind of AI.
- 2.2.3 The Australian Report also makes the poignant statement that “regulating an entire technology, as technology, is likely to be ineffective”¹⁵; meaning that trying to regulate the AI and data collection industry as a whole is likely to be ineffective. This does hold some credibility, as legislation attempting to encompass an entire category of technology would have to be so broad, that the holes left would be dangerous threats. Instead rather than attempting to regulate or legislate an entire technological group, the Australian governing bodies should be focusing on regulating the use of the technology, so that we do not face the “Slaughterbots” future. At the present moment, the public is highly suspicious of any organization that is collecting and utilizing their data- including the Government. According to the paper only 39% of respondents trusted the government’s use of their personal collected data. With a public so skeptical, it falls to the government to protect their interests, and ensure that these citizens are not being taken advantage of by technological corporations.
- 2.2.4 What the paper does a good job analyzing is the decision-making capabilities of AI, what needs to be considered (lawfulness, transparency, effectiveness etc.) as well as the potential drawbacks of utilizing massive datasets that could potentially exclude already marginalized groups¹⁶. This is essential to a democratic society remaining truly representative of all and shows that with enough forethought and human intervention it can be possible to utilize AI for the benefit of society without threatening it.
- 2.2.5 The research that went into the proposals was clearly extensive; however, from a human rights perspective, for a discussion so focused around human rights, there is much lacking. The lack of conversation of how the AI would be used, who would be using it (other than Australian policing authorities for facial recognition), and policies to regulate those two concepts were largely left out. It is for that reason that the legislating of AI is so dangerous. Without fully comprehensive legislation, AI is left too open to be used in contrast of democracy and human rights initiatives.

2.3 What The Australian Report Leaves Out Re: Democratic Threats and Monopolistic Corporations

2.3.1 To start, there is very little if any conversation about the democratic threats posed by unregulated AI in The Australian Report. It is not easy for a nation to accept that a new technology that could do good could also have dangerous implications. It does not address how monopolistic corporations have data on almost everything we do today. On the surface, while unnerving, this is not problematic. However, when that power is used to harness targeted political ads meant to sway voters towards corporate beneficiaries it is a direct harm to democracy. That is exactly what happened with Facebook and Cambridge Analytica in 2018.¹⁷ Corporations such as Facebook use everything we do online, creates a profile of who we are. This can be beneficial and can lead to what seems like a harmless targeted ad that can even seem to make your life more convenient! As Professor Zuboff explains, this data can be used in a more sinister way.



Using the profile of millions of a peer group, these corporations can predict mood swings of an individual person. This can lead to only slightly unethical capitalistic gains such as ads targeted for chocolate at someone who seems sad or it can lead to a complete underpinning of democratic society.

2.3.2 If these mood targeting ads can be used for products, they can also be used for campaigns. They can sway a voter angry about a certain issue, or someone who is neutral but feeling happy that day by playing a positive ad. These corporations need to be regulated so that they cannot use data in ads of any kind. This is a direct threat to the basic human right of free and fair elections. These corporations may use targeted political ads to sway voters toward a candidate that advocates for the corporate interests and not those of the voters. These capitalistic values could have a direct impact on the daily lives of global citizens and lead to an increased monopolization of the data collection and usage.



- 2.3.3 Similar to the dangers of big corporations using data for targeted political ads, these big data collection corporations can also be a danger in how they release the data. As previously mentioned, for marginalized groups, mass data analytics can lead to further marginalization. This can lead to an erasure of entire interests. In terms of democracy, this threatens the very basis of democracy in that it would not be representative of its constituents. As well, as mentioned through the “Slaughterbots” case, if the data and facial recognition technology gets into the hands of groups or even individuals with ill-intent it could be a direct threat to human rights. This technology could start wars, police states, and force previously free democracies into dictatorships. In terms of non-democratic nations, using AI poses incredible threats. The selling of this data to governments who do not value human rights initiatives could be utilized for oppressive regimes to identify those who dissent, anyone who breaks a minor law, and other harmful potential backlash. It is important that The Australian Report acknowledge this threat and take it into account with its proposals.
- 2.3.4 A topic also not brought up by The Australian Report is the fact that currently data collection is largely monopolized by a few mega-corporations. This provides a danger because if these corporations were to maintain and grow their current power they would have a global monopoly over data collection. This would mean that they would have dangerous information about residents in almost every country- and be able to sell that information to the countries for any reason. Currently Microsoft- one of the large corporations- is working with a Chinese military university to increase censorship and surveillance of citizens¹⁸. This poses a danger for every democratic and non-democratic nation. The paper does address that transparency is a top priority and in order to crack down on the behavior of these corporations it would be critical to implement transparency regulations to maintain a democratic value.

2.4 Conclusions and Recommendations

2.4.1 Recommendation 1

- 2.4.1.1. Rather than having the focus and basis of AI and data regulation being self-regulation, the basis be formal regulation such as legislation, followed by co-regulation and then self-regulation. The 2018 Cambridge Analytica scandal, 2016 United States Election, and the use of facial recognition being passed to police departments without any consent have proven that corporations involved in the AI community currently do not have enough human rights and democratic values to be trusted to self-regulate.¹⁹²⁰ In a world where barely 39% of surveyed citizens trusted the government with their personal data, it is up to the government to formally regulate the organizations they are working with for AI technology. Additionally, as there are so few companies that are powerful in this field, it is crucial that some

regulations and legislation be pointed towards preventing mega-corporations from becoming all powerful. This could be done by encouraging smaller companies to become involved in the partnership with the government, and also by putting limits on the growth of the mega-companies. This does, however, pose a problem with the 'regulation lag'.

2.4.1.2. To prevent regulation lag, and prevent the problem we are facing now where the technology has advanced so far beyond any legislation, it a proposal that any proprietary technology must be approved and presented to a type of regulatory board who may make initial, temporary regulations on any new significant advances. This way, the public can trust that the technology being used has been cleared, and the way it is being used is ethical and has their best interests in mind.

2.4.2 Recommendation 2

2.4.2.1 Transparency should be a key in any regulation of AI. With so few corporations holding the reigns on most of the data usage and collection, the public (and government) must be able to know exactly what the data is being used for. While the public does not need to access the data- as this could be dangerous is everyone knew everything about everyone- they have the right to understand what the data is being used for. Unlike the class action lawsuit against Facebook where the Facebook representative argued that users had no expectation of privacy upon registering, instead citizens should have an expectation of understanding where their data is going.²¹ This way if there is a democratic conflict, it can be brought to the proper authorities, and dealt with.

2.4.2.2. The challenge as to how to institute these transparency and sizeable regulations is the next big question. The answer to that is the same as how to get citizens to follow laws-formal sanctions. If any of the corporations violate their transparency agreements, they can face formal sanctions such as having their partnership with the government terminated, as well as no longer being allowed to operate within Australian borders, or profiting off of data collection of Australian citizens.

2.4.3. Recommendation 3

2.4.3.1. The final policy recommendation would be to not impose the moratorium on facial recognition²², but rather have a complete ban on it altogether. This is because facial recognition poses a direct threat to some of the core democratic values. Facial recognition can be used by policing organizations to find criminals, but it can also be used for undemocratic values such as identifying dissenters something protected under the

Australian Constitution²³. While this is a protected right, it does not prevent the technology from being used improperly. Additionally, facial recognition has been known to register primarily white males and leave out women and people of color. This is dangerous for democracy as the information gleaned from mass facial recognition would not be representative of the country.

2.4.3.2. Along with the danger of being used improperly by governments, it can also be used for surveillance and tracking- something that is a direct violation of privacy and can lead to many dangerous factors. It is for this reason that facial recognition technology should not be utilized at all in the Australian government.

2.4.4. Conclusion

2.4.4.1. The Australian Report of how to begin regulating AI technology is a step in the right direction, but it is far too weak. The paper seems as though it is aiming to be moderate and not anger corporations whose AI would be largely affected by any future regulations and legislations. This is not in the best interest of the Australian people or international human rights initiatives. Additionally, the paper has major holes regarding the democratic threat that unregulated AI poses. The paper does not address the major problem that the monopolistic corporations currently pose, or how to go about regulating those corporations and attempting to distribute that information. The paper is starting an important world discussion on what the international community must do about AI regulation, but it is by no means a comprehensive or perfect document. These recommendations are aimed to prevent mega-corporations from becoming too powerful through the use of transparency and regulations on their size and power. They are also based upon human rights and democratic initiatives to help every person maintain their individual liberties and prevent mass violations. These human rights and democratic initiatives should be the core to policy regarding formal legislation regulating AI moving forward, because the threats posed by not updating legislation are far too dangerous.



AI Will Exacerbate Already Worsening Inequality Unless There Is Democratic Control

3.1. Introduction of Inequality & AI.

- 3.1.1. The current state of extreme inequality around the world and specifically in Australia will be exacerbated by the use of AI technology which will further contribute to the unequal distribution of wealth and power. The Australian Report underestimates how systems of inequality that perpetuate oppressions of racism, sexism, classism, homophobia, transphobia, ableism, ageism and more, operate in keeping marginalized groups oppressed, and how AI will contribute to this oppression.
- 3.1.2. This section will expand upon historical and current contexts of systems of equality as they exist in Australia and around the world and how AI will be a tool used to keep the oppressed, oppressed. This section will also discuss the shortcomings of The Australian Report 's analysis on human rights as they are related to inequality and how AI could further cause harm to the disadvantaged, and the holes in the proposed solutions to these foreseeable problems that The Australian Report proposes. Lastly, this section will highlight specific recommendations for preventing AI from becoming a weapon against marginalized communities.

3.2. History of Inequality in Australia

- 3.2.1. There is an extreme history of inequality based on race in Australia due to colonialism as British settlers began colonizing Australia in 1788, while an estimated 1.25 million Aboriginal Australians lived there. At this time the indigenous Aboriginal people were subjugated to forced removal from land, incarceration, and mass killings. Those forcibly removed from their homes are considered the “Stolen Generation” who were put in adoptive families, forced to assimilate and abandon their native language.²⁴ It wasn’t until 1965 that most Aboriginal Australians had voting rights and full citizenship. Prior to this, several racist policies were enacted including the Commonwealth Franchise Act of 1902 which gave women the right to vote in all states but allowed states to restrict voting rights for “natives.”²⁵ In 2008 the Prime Minister of Australia, Kevin Rudd issued a national apology for the country’s actions towards Aboriginal Australians of the Stolen Generations and Australia began to work to reduce inequalities between Australians and Aboriginal Australians.²⁶ However the country today still remains largely affected by the genocide that occurred as only three percent of Australia’s population today includes those with Aboriginal Heritage, who now are fighting to retain their heritage, obtain sovereignty, and reparations. Racial tensions and inequality remain high in Australia as migrants, and refugees of color and their offspring have been denied equal citizenship in Australia, and face a lack of access to economic, social and political growth within the country.
- 3.2.2. Marginalized people of color will see the adverse effects of AI in causing larger racial disparities and disproportions of lack of access to various systems due to technology being controlled by the already wealthy and powerful. It is estimated that the top 1% hold as much wealth as the bottom 70% of the country in Australia.²⁷ This extreme unequal distribution of wealth can result in disadvantaged people facing communities with higher crime rates, poorer public health care, unequal education opportunities, increased political inequality and more. The problems of inequality highlighted in this section are not exclusive to Australia. People around the world face issues of inequality on the basis of their race, gender, sexuality, class status and more. These inequalities are often imbedded in government institutions, educational institutions, and the very systems that make up institutions all over the world. The barriers to equal access become larger and larger when people’s identities are intersectional and they face more than one form of oppression and discrimination. The question of who has access to power and wealth determines who controls technology and benefits from it the most as well as who it harms the most.

3.3. Australian Reports Shortcomings on Inequality

- 3.3.1. The Australian Report spends a significant amount of time defining human rights and attempts to discuss how new and emerging technologies engage with human rights. It fails to emphasize the deeply rooted racial prejudice and discrimination of people of color in Australia as it began with the genocide of the Aboriginal people and the erasing of their culture. It fails to emphasize extreme inequalities in the distribution of wealth and finances in Australia. The securing of human rights in relation to new technologies and AI is indeed important, but it is also important to consider the injustices and inequalities that people are currently facing in the world and place into context every perceived way that AI could make these inequalities worse.
- 3.3.2. Section 2.3 of The Australian Report notes that, “for people who experience multiple forms of disadvantage, the negative experience of new technologies can be compounded. For example, an Aboriginal person with a disability may experience an intersectional disadvantage if this person faces barriers to accessing technology by reason of being Aboriginal and further barriers because of their disability. This can exacerbate existing exclusion and discrimination”.²⁸ The Australian Report notes a large problem with the introduction of AI and how it can further cause harm to already prevalent barriers that people face with complex and intersectional identities. However, the solutions provided are not expansive or convincing enough to solve the very problem they presented. The Australian Report also notes that AI could potentially increase unequal access to digital technologies but that the way to compensate for this is to make digital technologies available in various digestible ways for consumers with disabilities and more.²⁹ It is indeed important to note that technology has not always benefited those with disabilities equal, however, there needs to be a consideration of how this advancement in technology with AI will perpetuate unequal forms of access more so than just user accessibility. It is necessary to assess how and why systems of inequality that perpetuate unequal distributions of wealth will account for low income and impoverished people’s access to technology which presumably will be expensive and therefore unattainable to those who aren’t wealthy.

3.4. Conclusions & Recommendations

- 3.4.1. Power and prestige often throughout society been associated with white men, technology has been dominated by particularly white western male perspectives. Arguments as to why this narrow perspective of white western technology is harmful include the fact that this powerful and privileged creation and use of technology have often had extremely harmful implications for impoverished communities, communities of color, women, and children the most.

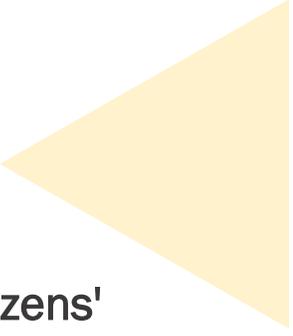
3.4.2. Resolution 1

3.4.2.1. Environmental harm and injustice as a direct result of overconsumption and waste due to technological advancements have harmed these communities and people the most. Until society as a whole becomes more equal, implications for those who maintain power and wealth will continue to cause harm to those who already face extreme inequalities and technology such as AI will be inherently harmful to marginalized communities as various forms of technology often have.

3.4.3. Resolution 2

3.4.3.1. A solution to this problem that The Australian Report does not include, is that there needs to be advancements in society that shift the paradigm of social structures as they perpetuate inequalities of gender, race, class, sexuality and more. The Australian Report argues that AI will be a way to bridge the gap between inequalities as they exist making job recruitments more equal through not focusing on identities such as race, and gender, however, it does not account for how AI will impact inequalities in a multitude of negative ways which is why these inequalities need to be addressed first





Need Democratic Control of AI Law and Policy via Citizens' Assemblies

4.1. Introduction

4.1.1. Currently, with the seemingly never-ceasing development of AI technology, there must be laws and regulations in order to monitor, regulate, and oversee the technology that seemingly gets smarter and more versatile by the day. The method that is being proposed in this paper is the creation of a Citizens Assembly in order to create, oversee, and regulate the laws in regard to AI technology. Basing off the results of states such as Ireland, Australia or Canada, a citizen assembly is the best way we make sure that policies and laws implemented for AI's are lawful and just for both parties.

4.2. Definitions

4.2.1. AI:

4.2.1.1. A branch of computer science dealing with the simulation of intelligent behavior in computers

4.2.2. 2

4.2.2.1. The capability of a machine to imitate intelligent human behavior³⁰

4.2.3. Citizen Assembly:

4.2.3.1. A Citizens Assembly is a group of people who are brought together to discuss an issue or issues and reach a conclusion about what they think should happen. The people who take part are chosen so they reflect the wider population – in terms of demographics (e.g. age, gender, ethnicity, social class) and sometimes relevant attitudes (e.g. preferences for a small or large state).³¹

4.3. Successful Examples of Citizen Assemblies

4.3.1. One of the older citizen assemblies was in 2004 in British Columbia, Canada. This was to change the electoral system to a provincial electoral system. This was in order to prevent elections from just being two horse races and making sure all the voices of the people of Canada were being represented. There is another citizen assembly that began in 2019 in

order to “elect MPs who will champion proportional representation and parties who will promise to implement proportional representation or make it a top priority in a minority government.”³² The people of Canada after their first successful assembly have continued to hold assemblies in order to keep their lawmakers and themselves accountable.

- 4.3.2. Then in 2009, Australia had their Citizens Assembly in order to deliberate how to better the political climate of Australia. From the meeting, some of the drafted items were to “empower the citizens to vote through community engagement, change the electoral system to Optional Preferential voting, and youth engagement in politics,”³³ Through this, the citizens presented their ideas to the House and the ideas were accepted and taken into action.



- 4.3.3. In 2016, Ireland held a successful citizen assembly in order to discuss and better the Constitution of Ireland. Topics included topics such as abortion, fixed term parliaments, and climate change. The members of the Citizens Assembly, “are selected at random from the electoral register. They should reflect Irish society in terms of age, gender, social class and regional spread.”³⁴ After the creation of this assembly, they deliberated on how the policies should be changed in order to better help the citizens of Ireland. The Citizen Assembly allowed for the citizens of Ireland to be able to create change and create policies for the people and hold their government accountable.
- 4.3.4. The common thread in all these Citizen Assemblies is that all the changes and ideas were brought to the government by the people, the citizens of that country. Often times, the people who live in the situations know much better than the people making the policies. This is why a

citizen assembly is the best way to create laws and policies in regard to AI. The citizens of the affected country will be and are the people losing their jobs or getting their profession changed because of the growth of AI, not the lawmakers. If a citizen assembly is held, the best possible outcome of policies will result that best benefit the people because the people/ citizens are the affected in this growing AI market. The decision should be left to the citizens to know what they want in terms of policy.

4.4. Argument against Citizen Assemblies

- 4.4.1. However, there are some points to address in terms of citizen assemblies. Critics of citizen assemblies have called former assemblies such as the one in Ireland as opportunistic. “The momentum behind citizens' assemblies in Ireland was in large part driven by the profound economic crisis that brought the country to its knees a decade ago.³⁵ The assembly in Ireland was largely successful because of the circumstances that led up to the assembly. There is no guarantee that others will be successful. However, to address this point, it may have been circumstantial in Ireland, but in other countries such as Australia or Canada, those citizen assemblies were held because the people saw the good work that happened in Ireland and wanted to recreate that democratic society.
- 4.4.2. The current 2019 assembly in Canada was not spurred by some economic crisis. Rather, it was because the citizens saw something they wanted to change in their government and they took action. Some other concerns about citizen assemblies were that the people are unpaid and that it takes up a considerable amount of time. To reference Ireland again, that citizen assembly took 12 weekends over the course of 18 weeks in order to reach a consensus. Regardless of the time commitment, I believe that a citizen assembly would be much more efficient than lawmakers working on the policies.
- 4.4.3. The lawmakers can in theory listen to what their incumbent wants and represent them, but as we see in the American government, we know that often that is not the case. And also, not every country has a representative system of democracy. Which leads me to another very large concern which was that it was not inclusive of everyone because it is near impossible to assemble a representative from each area to make time to come to this assembly. However, to further iterate my prior point, many countries are democracies but not all are representative democracies. The citizen assembly is the best possible way to tackle and make sure AI laws are properly overseen. The people know best as to how they want AIs regulated. The people are the most affected party; it just makes the most sense that the people who are affected the most help make and oversee the policies.

- 4.4.4. Finally, to address the point that a citizen assembly is not inclusive nor representative of everyone. That statement is true, however, there will never be any government that is fully representative of everyone that lives in that country.

Citizens' Assemblies: How Deliberative Democracy Can Help Control Artificial Intelligence

5.1. Introduction and Relevance

- 5.1.1. The Australian Human Rights Commission clearly outlines the need for innovative regulation of AI in its own report, writing,

“several submissions identified that meaningful stakeholder participation was important for the regulation and design of technology. Some emphasized the importance of genuine participation of stakeholders from vulnerable groups who can be most affected and disadvantaged by AI technologies.”³⁶

One such method should be the integration of citizens' assemblies, or other forms of deliberative democracy. Citizens' assemblies, juries, and dialogue groups all gather randomly selected citizens together anywhere from a day to several months. Assembly members and jurors hear from experts on the policy issue at hand and deliberate with one-another in depth before reaching policy recommendations or proposals.³⁷ Establishing citizens' assemblies or juries on AI would allow policymakers to directly engage Australians in conversations on oversight and regulation. Forms of deliberative democracy could easily be used to help the Australia Human Rights Commission determine on which issues and delivery of services to employ AI, if the use of AI in particular instances is ethical, and how best to design government regulation and public oversight of AI – instances of which have already been implemented elsewhere.

The discussion paper also emphasizes responding to and regulating AI through the lens of protecting human rights recognized under international law.³⁸ Citizens' assemblies have also been successful in this area, with citizens' assemblies having played an instrumental role in legalizing gay marriage and abortions in Ireland.

5.2. Examples of Successful Citizens' Assemblies

- 5.2.1. Perhaps the best known and most successful examples of citizens' assemblies both come from Ireland. In a historic referendum in May 2018, Irish voters removed the Eighth Amendment from the Irish Constitution, officially legalizing abortion nationwide. The referendum was also noteworthy because of how it came to be: as a result of the Irish Citizens Assembly. Created in 2016 by a parliamentary resolution, the Citizens Assembly was made up of 99 citizens 'randomly selected so as to be representative of Irish society' in terms of age, gender, social class, and regional spread.³⁹ After recommending the repeal of the Eighth Amendment to the legislature of Ireland, the issue was placed on a referendum, and overwhelmingly passed by voters 62% to 38%.⁴⁰ The Citizens Assembly work largely built on that of the Convention on the Constitution, another assembly in Ireland that ran from 2012 to 2014 and led to the 2015 referendum legalizing gay marriage in Ireland.⁴¹ These Irish examples show how bottom-up input can enhance representative democracy and help protect human rights, just as the Australian Human Rights Commission aims to do.
- 5.2.2. Citizens' assemblies have also been integrated successfully in other countries around the world on a variety of issues. In the United States, simultaneous 'rural climate dialogues' made up of 15 – 18 participants have helped lead local environmental efforts across Minnesota, including developing community solar gardens, renewable energy exchanges for homeowners, and free home energy audits for low or fixed-income households.⁴²
- 5.2.3. Finally, in England, six-cross party House of Commons committees commissioned the Climate Assembly UK in 2019; which will meet to deliberate on how the UK can meet its new goal of becoming the world's first net-zero emissions economy by 2050. In November, Parliament mailed out 30,000 invitations to residents across England, Wales, Scotland, and Northern Ireland, paving the way for the Climate Assembly UK to be one of the largest examples of deliberative democracy seen yet.⁴³
- 5.2.4. The UK has also used citizen juries to address artificial intelligence, establishing two juries in the cities of Manchester and Coventry in early 2019. Over 5 days, the 18-member panels learned about AI, and considered scenarios of how AI is frequently used across healthcare, job recruitment, and criminal justice systems. After deliberating how important it is to be able to understand how the AI system reached its decision ("explainability") even if the ability to do so could make its decisions less accurate – jurors generated guidance about how automated decision-making programs might be most effectively used and overseen.⁴⁴

5.2.5. For example, the majority of jurors agreed that an explanation of how an automated decision was reached in a healthcare setting was not necessary in contexts where explanations would not normally be given for a non-automated (human) decision.⁴⁵ Based on these discussions, the Information Commissioner's Office (ICO), the UK's independent authority on information and privacy rights, will generate a report of potential policies to regulate automated decision-making technology later this year.⁴⁶

5.3. Citizens' Juries in Australia

5.3.1. Rather importantly, there is also notable precedent for the use of deliberative democracy at home in Australia – with citizens' juries of various sizes having been successfully utilized by local, city, and state governments. After the Greater Geelong City Council was dismissed by the Victoria State Government in 2016, 100 city residents were convened to determine how they would want to be represented in local government in the future.⁴⁷

5.3.2. After hearing from various experts on civics and government over the course of four months, the jury delivered a final report with 13 new recommendations for the local governance of Greater Geelong. The Victoria State Government agreed to 12 of the 13 recommendations and passed a bill to create the jury's Mayoral and Councilor structure on June 8, 2017.⁴⁸

5.3.3. At the state level, the government of South Australia commissioned a citizens' jury in 2016 to determine if South Australia should store nuclear waste from other countries to help revitalize the region's struggling economy. This jury, the largest to be held in Australia with 350 members, voted against the nuclear dump proposal, citing a lack of trust in the government, and objections raised by indigenous communities. The jury expressed doubts about the strength of the economic case for a nuclear waste facility that was put forward by the Nuclear Fuel Cycle Royal Commission.⁴⁹ While the South Australian government is still exploring the creation of a nuclear waste facility, this jury demonstrates how larger Australian governments are already directly engaging citizens in the process of remedying complex and controversial policy issues like nuclear waste.

5.3.4. Finally, Sydney – Australia's largest city with over 5.2 million residents – created a citizens' jury to draft up broad, long-term goals for the municipality. In its *Sydney 2050* report. The jury recommended various policy initiatives, including increasing education on indigenous populations, prioritizing government subsidies for affordable housing, and creating a 24-hour public transportation system. The Office of the Lord Mayor is currently reviewing these recommendations and requesting public feedback on the jury's proposals.⁵⁰

5.4. Misconceptions about Citizens' Assemblies

5.4.1. Despite growing evidence of their abilities to cut through political gridlock and establish popular policy solutions, many misconceptions about citizens' assemblies and other forms of deliberative democracy remain. However, most common criticisms of these models have little basis in evidence.

5.4.2. Misconception 1

5.4.2.1. One of the most popular misconceptions is that citizens' assemblies involve 'ordinary citizens' who cannot or will not meaningfully to policy discussions and recommendations. Yet, there is strong empirical evidence that when given the appropriate setting and sufficient evidence, citizens can and *do* offer considered policy advice on complex issues.⁵¹

5.4.3. Misconception 2

5.4.3.1. Another criticism is that forms of deliberative democracy seek to undermine and replace representative government, when they are ideally a complement. Instead, forms of deliberative democracy involve participants that lack the accountability of elected representatives, who are often tied to the interests of their parties, constituents, and special interests.⁵² As seen in examples around the world, deliberative democracy can help elected officials obtain a clear view of public opinion and reform proposals – from same sex marriage to environmental concerns.

5.4.4. Misconception 3

5.4.4.1. Finally, a common complaint is that citizens' assemblies and other models of public participation serve as a 'smokescreen' for unpopular policies and may actually work to exercise social control. There are numerous cases of special interest and advocacy groups attempting to influence forms of deliberative democracy, but little evidence of significant success. In fact, forms of deliberative democracy have proven to reduce corruption and the likelihood of control by one faction or political interest.⁵³

5.5. Recommendations

5.5.1. Just as the Australian Human Rights Commission highlights, AI must be accountable in how it is used, and understood in how it impacts the human rights on individuals.⁵⁴ In England, multiple citizens' juries on automated decision-making technology specifically demonstrated how direct public input can be used to increase awareness of AI's human rights repercussions, as well as generate considered policy

recommendations. Citizens' assemblies elsewhere in the United States, Ireland, and even Australia have also continually generated high quality deliberation and in some cases led to subsequent policy-making processes and substantial human rights victories.

- 5.5.2. These cases from around the world represent the growing evidence that forms of deliberative democracy, if well designed and well resourced, provide a way to bring informed and considered public opinion to bear upon major public policy issues. With significant human rights concerns raised by AI, as well as notable examples of successful citizens' assemblies both domestically and abroad, the Australian Human Rights Commission must consider the creation and implementation of deliberative democracy to generate further public guidance on any government action.

Critique of Chapter 7 and Weak Citizen "Consultations"

6.1. Introduction

- 6.1.1. Active citizen participation in policy making for Artificial intelligence regulations is essential to ensure a just future. Many individuals take AI for granted and award too much confidence to it. Indeed, the rapid standardization of new technologies in society is responsible for this attitude. Few people are fully aware of the risks AI represents and something must be done to educate the general public with knowledge on the issue, the public, specifically vulnerable populations, can actively help create standards for sectors that are involved with AI.
- 6.1.2. Through a Citizens Assembly, they will be able to aid in developing rules for both the private and public sector. The Australian Human Rights report offers progressive proposals that can help promote AI compliance with human rights but, there are instances where ideas are not specific enough or do not offer the best solution for AI reform. It is important that everyone who is part of our modern tech orientated community understands the extent of the risks AI represents and participates in the push for ethical reform in this area.

6.2. Proposal 13

- 6.2.1. Chapter 7 focuses mainly on accommodating change by making AI developers see financial opportunity in complying with standards. Notably, Proposal 13 expresses the desire to create a task force to push

for the implementation of a “human rights by design” model. It claims that a “voluntary, or legally enforceable, certification scheme should be considered”⁵⁵. We are told that “human rights by design” is a concept where AI developers will consider the risk their technology may have since it benefits their brand. In other words, the product will have more inclusive accessibility, a better reputation and a larger consumer pool. While this can incite many small developers to assess their product, bigger companies will not be affected. The average consumer will most likely not be concerned if their purchase does not clearly respect certain standards, especially if they are habitual consumers of said product.

6.2.2. Additionally, to promote a voluntary certification scheme, this proposal could establish a Trustmark system to influence consumer choice. They would create a mark that signifies that the developer has complied with the standards which, in turn, should promote their product. It might seem like this could work, however, we run into the same problem as previously discussed.

6.2.2.1. There are a “small number of dominant players [and] the AI market is not limited to a single industry”.⁵⁶ The mark would have no effect on the larger corporations. AI can range from kitchen appliances to high tech research computers which makes the creation of a standard incredibly difficult. This is why a legally enforceable rule is far more secure than betting on voluntary participation. The task force should still be created to help co-operation between the government and private sector but must have significant legal authority.

6.3. FaceApp

6.3.1. Mandatory regulations for AI are essential to ensure privacy and promote transparency. Recently, a controversy with the Russian application “FaceApp” brought the problem of AI and privacy to the attention of every mainstream media. A user chooses a selfie to upload and an AI program modifies the image with different effects. When using “FaceApp”, the consumer is allowing the company to “use photos and other information uploaded for commercial purposes, including their names, likenesses, and voices. The terms of service also say that “FaceApp” may continue to store user data after it's deleted from the app.”⁵⁷ This created an outrage on social media because no one wanted their profile used for commercial purpose. The rapid normalization of AI programs has made everyone comfortable with the technology, however, the knowledge a lay individual has on the matter is very minimal.

6.3.2. Furthermore, this “FaceApp” scandal is closely related to the problem of transparency with AI programs. Most members of the public will not read terms in detail or research all the implications when using an AI service.

The research paper does mention the need for transparency with AI but only refers to it when talking about government accountability. It claims that “[g]overnment decision making that uses AI should be transparent [and] could be advanced through better auditing processes that show how the Australian Government is procuring and using AI”.⁵⁸ This is a good suggestion; however, private companies are major actors in transparency problems across the globe.

6.4. Example of Company Failure of Disclosure

6.4.1. Indeed, a relevant example of companies failing to disclose the entire process of their AI program is every ancestry website. These companies allow someone to find out their origins and their family history by sending a DNA sample through the post. The issue is that these companies store the data and can gather a lot of information about one's entire family tree. Not only are they collecting your data, they are also taking generational genetic information. In the journal “Family tree and ancestry inference: is there a need for a ‘generational’ consent?”, the contributors conduct a study where they notice the lack of any warnings in relation to how this AI service can affect you or your family. After their research, they suggest that “companies need to notify potential clients of the implications for third parties and ask them to inform those third parties of plans to participate.”⁵⁹ To make the service as attractive as possible, companies refrain from disclaiming risks that do not directly relate to the consumer. In doing so, they are taking advantage of the complete trust our generation has in technology.

6.5. Proposal

6.5.1. To avoid privacy and transparency concerns, regulations for private companies are effective but education of the public must be a concurrent goal. As illustrated by the examples above, people will blindly download applications and use programs to entertain themselves or facilitate a task. The general population must understand the implications of AI if they are to participate in the AI regulation discussion.

6.5.2. Proposal 16 of the report adds an education requirement to the proposed National Strategy on New and Emerging Technologies.⁶⁰ It entails that the proposal should include “training tailored to the particular skills and knowledge needs of different parts of the community, such as the general public and those requiring more specialized knowledge”.⁶¹ This is a good initiative that should be pushed further. A policy could require the completion of a sensitivity training program in order to launch an AI program. This means that those who create AI have to understand the risks that their work can have in regard to human rights. For those already on the market, the taskforce could be used to assess their ethical understanding of AI and judge whether they follow the standards of their country.

- 6.5.3. This is a realistic proposal since many professions already have ethical training to understand how their position may impact their community and human rights. (police) If developers are trained to understand human rights implications in AI, they immediately take on more responsibility. Even if the “Australian government establish[es] a regulatory sandbox to test AI informed decision making”⁶² like it is suggested in Proposal 15, the training should be added. It would deal with the problem from the start, before a product is even designed. If the risks are made clear and developers are tested on their ethical spectrum, AI created that violates human rights cannot be dismissed as an error. If ethical incentive is not enough, little tolerance must be shown to the companies that overstep this regulation. Knowing that failing to abide by the ethical regulations will lead to repercussions will undoubtedly pressure developers into meticulously assessing the risks their product might carry in regard to human rights.
- 6.5.4. If the education of citizens and AI innovators is successful, the public will be able to competently participate in AI policy making. Admittedly, many of the proposals address the idea of public consultations as a means to involve the citizens. These discussions are not enough and can be false representations of a country's population. What is needed is real citizen power over AI law and policy via citizens' assemblies. Consultations do not provide the public with actual input power on the matter. Even if it does promote transparency and inform the public, it simply gathers suggestions rather than truly involving the affected people. These consultations are broadly entertained in the report. In Proposal 17, it says that the government should create a broad survey, “in order to identify how those impacted by a decision are informed of the use of AI in that decision-making process by engaging in public consultation that focuses on those most likely to be affected.”⁶³ We can see that the goal is to connect with the populations most at risk, however, there are no specific requirements for this incentive. Disadvantaged populations must be at the center of the discussion as they are the ones that are the most affected by AI programs.

6.6. Conclusion

- 6.6.1. To conclude, mandatory regulations for AI development in regard to human rights must be established with the help of a Citizens Assembly. Concurrently, the entire population has to be educated on the risks technology represents in their daily activities and be made aware of the limits of AI collected data.

6.7. Recommendations

- 6.7.1. Create a mandatory ethics training program for people in professions that have any involvement with AI or AI collected data. For overseas

companies, use the task force to monitor their respect of Australian standards.

- 6.7.2. Create mandatory courses in public schools to educate children on the risks of AI and prepare them as future citizens to be involved in policy making.
- 6.7.3. Have a nationwide Citizen Assembly with every gender, race and socio-economic class represented equally with an emphasis on vulnerable classes.
- 6.7.4. Impose regulations and fines to ensure proper testing of a product before its launch.

Human Rights Law Issues

7.1. Introduction

- 7.1.1. There are many benefits to artificial intelligence. From improving our ability to communicate to increasing access to food, health, and education or enhancing national security programs, artificial intelligence is growing, developing, and changing our vision of the future.⁶⁴ When considering the impact that artificial intelligence, or AI, will have on society as it becomes more advanced, it is important not just to consider the political and economic consequences but to also focus on the potential issues that arise relating to human rights. Without laws and policies strictly regulating the development and use of artificial intelligence, the government or private companies who utilize this new technology could violate citizens' rights to privacy, non-discrimination, and even their right to free thoughts, opinions, and expression. This section will address the many ways that artificial intelligence could infringe upon the standards set forth in The Universal Declaration of Human Rights, UDHR, and further advocate for citizens' assemblies as a means to protect these rights.

7.2. AI and Human Rights Law

- 7.2.1. In order to discuss how AI could potentially infringe upon human rights laws, a standard for what rights are guaranteed and protected must be established. The Universal Declaration of Human Rights, is the common standard set by the United Nations in 1948 and will be used as the basis for this discussion.⁶⁵

- 7.2.2. In Article 13 of the UDHR, the document states that “no one shall be subjected to arbitrary interference with his privacy, family home or correspondence, nor to attacks upon his honor and reputation.”⁶⁶ With AI collecting data, frequently without the consent of the consumer, and passing this data on to third parties, the new technology overlooks privacy in favor of using personal information to its advantage. Without clear knowledge of what data websites are collecting or what the third parties use the information for, the consumer’s privacy is violated and their information is used unethically.
- 7.2.3. In Article 7 of the UDHR, the document states that “all are entitled to equal protection against any discrimination in violation of this Declaration.” While AI may seem like a solution to human error and bias, the algorithms which control the behavior and decisions of the technology are frequently based on skewed data sets which can lead to gender and racial discrimination. For example, a facial recognition AI failed to recognize dark-skinned women 35% of the time despite being able to accurately identify lighter skin men 99% of the time.⁶⁷ While this example does not have adverse effects on minority populations, AI that could be programmed for the criminal justice system could have adverse effects on minority populations similarly due to skewed data sets.
- 7.2.4. In Articles 18 and 19 of the UDHR, the document guarantees “the right to freedom of thought, conscience, and religion” and “the right to freedom of opinion and expression” accordingly.⁶⁸ While AI may not be used directly to censor the population, constant surveillance could deter citizens from speaking their minds. Similar to how laws in the U.S. that restrict free speech cannot not be vague or overbroad due to the fact that it may make speakers unnecessarily cautious, constant surveillance could hinder the democratic process by limiting citizens’ speech. While Australia does not explicitly guarantee free speech constitutionally, it is necessary in order to guarantee that, in the words of the Free Speech Advocate Alexander Meiklejohn, “every voting member of the body politic” has “the fullest possible participation in the understanding of those problems with which the citizens of a self-governing society must deal.”⁶⁹ Without the ability to speak without fear, citizens will not have the proper discourse necessary to make educated policy decisions. One of the key elements of human rights highlighted by the Australian Human Rights Commission is that they recognize humans’ ability to make free choices about how to live.⁷⁰

7.3. Citizens Assemblies to Safeguard Human Rights

- 7.3.1. In Article 21 of the UDHR, the document states that “everyone has the right to take part in the government of his country, directly or through freely chosen representatives.”⁷¹ In this case, people have a right to participate in deciding whether or not the benefits of AI outweigh the potential risk or loss of human rights. In the Australian Human Rights

Commission's Discussion Paper, it states that a limitation on a human right “must be necessary, reasonable, and proportionate in pursuing” a legitimate aim.⁷² However, neither the government nor private companies should decide whether or not a limitation on the human rights of a population are justifiable. A Citizens Assembly would be most effective and fair in deciding whether or not a breach of human rights law is necessary and reasonable. Provided that the Citizens Assembly contained a cross section of the general public and included representation for specific minority groups, the assembly could ensure that new technologies, and the policies surrounding them, do not infringe on their human rights or the rights of others.

7.4. Recommendations

- 7.4.1. When developing future AI policy, a highly recommend use of a Citizen’s Assembly to take into consideration would be the willingness of the population. This would account for potential harm to minority communities and creates healthy discussion that would ensure the satisfaction of all members of the community.
- 7.4.2. Also, to recommend taking into consideration how AI could affect each article of the UDHR. Whether or not it seems like AI could have a direct effect on human rights, in this case, it is better to be overcautious in protecting the population from violations of their rights.



Women and AI Decision-Making

8.1. Introduction

8.1.1. The Australian Human Rights Commission has created a discussion paper on their preliminary views on protecting and promoting human rights among the rising growth of new technologies. However, in the discussion paper there is no mention of how women have a human right to half of the decision-making power. When the paper discusses citizens' assemblies, it fails to mention women in any capacity. The discussion paper should be more specific and explicitly mention the role that women play. This includes not just elite women, but intersectional women as well.

8.2. Australian Human Rights Commission: Human Rights and Technology

8.2.1. The discussion paper in Part B: Chapter 5: AI-informed decision making on page 68, states a case study where it goes over a situation in which AI can be used.⁷³ One example is bringing forward predominantly male candidates as potential employees.¹ This can result in people being denied due to a characteristic such as gender or race.¹ On page 78 the discussion paper mentions that discriminatory outcomes from AI-informed decision making can be difficult to detect or predict.¹ In a 2018 study, academic researchers found that an advertisement for science, technology, engineering and math (STEM) jobs, which were intended to be gender-neutral ended up being shown to far more men than

women.⁷⁴ This occurred because while the advertiser did not intend to exclude women, they required that the advertisement be shown in a cost effective way. The researchers found that this requirement led to women being excluded from seeing the advertisement because the algorithm was applied in a way that caused women to be a more expensive demographic to advertise to.²

- 8.2.2. By not having diverse groups inclusive of intersectionality, there can be forms of discrimination present. Humans create the algorithms that AI uses to make decisions. If there is no diversity present in the decision-making portion of AI in the development stage, then AI will not make diverse decisions.

8.3. Biases in Artificial Intelligence

- 8.3.1. In an article, *Even artificial intelligence can acquire biases against race and gender*, the author states that while AI promises to be free of biases and that AI would give everyone a fair chance, new studies show that computers can be biased as well. This is because humans are the ones creating the algorithms.⁷⁵ In order to test for bias in the machines, Bryson and his colleagues have developed a word-embedding association test (WEAT) which computes similarity between words.³ The team found that names like “Brett” and “Allison” were most similar to those for positive words including love and laughter and names such as “Alonzo” and “Shaniqua” were more similar to negative words like “cancer” and “failure.”³ To the computer, bias was shown.

- 8.3.2. An article by CIODIVE points out that AI is only as good as the design of the algorithm and the data that is used for reasoning.⁷⁶ According to a 2018 report from the National Center for Women & Information Technology, only one-quarter of all technology-related positions are held by women.⁴ When there is not diversity in the system, this is when bias occurs.⁴ In the design processes, diversity will ensure different questions are asked at the different stages.⁴ By increasing diversity in design and decision making this will ensure that there is a more transparent and equal system.⁴ Early AI in human resources was associated with bias because the pool of data the AI drew up mostly consisted of men.⁴ Unintentionally, the system downgraded resumes that highlighted women’s achievements or showed soft leadership traits related to communication and emotional intelligence.⁴ Until the problems with design and development are addressed by AI companies, their innovations cannot be relied upon for bias-free computing.

8.4. Increasing Women Participation in Artificial Intelligence (AI)

- 8.4.1. Having more women in the artificial intelligence (AI) industry will help decrease the bias in the development of AI.⁷⁷ Bias and preconceptions are deeply rooted in society meaning those that work on AI applications are placing bias preconceptions into the data as well.⁵ Machine learning is utilized by many members of society.⁵ The decisions made by machine

learning affects people's lives in many ways including: the hiring process for companies, education when it comes to teaching those about the world, and in policing and the law.⁵ For example, judges and parole officers have the ability to use algorithms to predict if a defendant will break the law again.⁵ Goodman stresses the importance of being sure that the algorithms are not biased toward individuals from any particular social or racial group in society.⁵ For example, a challenge of AI data is that history cannot be changed. History consists of preconceptions that were once relevant in society but might not still be true today. In order for AI to become better, factors such as race and gender must be abandoned. It is especially important to not give these factors a negative connotation because it would hurt the performance and reliability of the system. Moreover, it also has a chance of not improving fairness because of the potential that the factors are not included in a positive manner. While biases cannot be eliminated, AI as a whole can be used to overcome barriers and create fairness and the betterment of society.

8.5. Conclusions and Recommendations

- 8.5.1. There needs to be an increase in women participation of AI due to the fact that people in society have preconceptions and biases and therefore those creating AI would also have the data with the same preconceptions. Research has shown that hiring more women increases the diversity of AI data but there needs to be women from all backgrounds including intersectional women of color, women of different socio-economic backgrounds, and women of different sexual orientations. The more diversity that is included the better the development of AI data there will be. I recommend that the AI-informed decision making excludes women from all sectors of society but while women are not mentioned in the discussion paper and in order to be inclusive of all backgrounds and strengthen machine learning to be at the best it can be; diversity is a must.

Racial Discrimination and Discrimination Against Indigenous People Regarding Artificial Intelligence

9.1. Introduction

9.1.1. When broaching the topic of artificial intelligence, new applications of technology, and its many uses in society that can affect the privacy and security of people everywhere, it is of utmost importance to go out of the way to protect the most vulnerable groups in society. Race representation and racial discrimination have been a recurring problem within modern technology for as long as computers have been used in government, private, and public spaces. An immediate and passionate response is required to ensure that the rise of AI in the public sphere does not leave behind racial and indigenous minorities, or these groups will find that these new technologies are being used in new and increasingly complex ways to assist in discrimination and oppression. With regard to the discussion paper, it is crucial that specific mentions are made to protecting racial and indigenous minorities while also providing concrete legislative and regulatory steps that states can be implemented now to prevent these problems from occurring in the first place. A major goal of the Australian Human Rights Commission must be to safeguard vulnerable minority populations from further harm through a combination of inclusion, state regulation, and careful approaches to the way in which new artificial intelligence is created and implemented.

9.2. Racism in the Healthcare Sphere

9.2.1. As is evidenced through the artificial intelligence that is already being implemented into more general use throughout different sections of industry, these programs are often formulated with little to no input or thought given to racial minorities and their specific needs and requirements. Almost all new artificial intelligence programs are being coded and employed by primarily white, male workers⁷⁸, and biases can easily be ingrained into a new system without those creating it even realizing what they are doing. These inherent but unchallenged biases can then go on to influence how artificial intelligence programs affect racial minorities in many different ways. One critical way in which artificial intelligence has already begun discriminating against minorities is through facial recognition used within the healthcare sphere. When facial recognition is used in tandem with medical diagnosing software, black people were often misidentified or put on a lower scale of risk when it came to their symptoms. This has led to minorities being assigned lower priority, or even an altogether different treatment plan, than they required.⁷⁹

9.2.2. The Discussion Paper has already outlined the possibility for this problem without going in-depth in the section ‘Case Study: Use of data in health’.⁸⁰ The nontransparent way in which most artificial intelligence programs are designed can lead to such problems, and it can often take quite a while before others notice the problem inherent to the program. All programs need human inputs to create a sophisticated algorithm that allows the artificial intelligence to then go about doing its job on its own, and the creators are often reflected in the finished product.⁸¹ These algorithms are most often, as previously mentioned, created by teams of white males that do not consider minority needs into their algorithms and code. Much of this inherent biasing has to do with the sampling used to train the algorithms on identifying participants for the new technology. The worst possibility is that creators of this technology may purposefully discriminate against racial and indigenous groups due to their own prejudices, and the discussion paper recognizes that without oversight these prejudices then enter the public sphere and can go undetected for some time.⁸²

9.3. Other Sectors of Discrimination

9.3.1. Multiple sectors of society can be severely affected by discrimination, and it is critical that the Australian Human Rights Council address these varying sectors to help guide statutes and regulations across the international marketplace. One of the most critical areas of use to address is the probability of artificial intelligence being used in policing and law enforcement applications. These applications can have serious ramifications for minority and indigenous groups, as the common problem of human discrimination against certain racial groups can skew the data sets used by law enforcement artificial intelligence programs.

9.3.2. Already the Council of Europe has been closely monitoring the new roles that artificial intelligence has and will fulfill throughout the penal system. Many of these roles may have serious consequences for citizens’ privacy inside and outside of a correctional system.⁸³

9.3.3. A second set of sectors that face possible problems is hiring and student selection. Both of these areas are often impacted by unconscious human decisions rooted in bias, and the introduction of artificial intelligence to these areas may see entire racial groups at a lessened advantage when it comes to finding employment or higher education. The next major concern is how artificial intelligence will categorize people when it comes to targeted advertising, and this can already be seen in the way that learning algorithms attempt to categorize and differentiate persons based on any information that the program can gather.⁸⁴ Tangential to this, it is possible that artificial intelligence that is being employed to set prices for individuals based on their characteristics discriminates based on race or indigenous status. Both of these groups are regularly more impoverished than the rest of the population, and things such as credit problems or inability to pay

regularly may lead to programs to view entire races of people in particular ways.⁸⁵ All of these different sectors must be taken into account and given individualized, in-depth attention when it comes to the attention that states give them and the artificial intelligence that sprouts up around them.⁸⁶

9.4. Recommendations

9.4.1. The Australian Human Rights Council must attempt to preempt these problems by recommending that states take immediate and concrete action to ensure that these possibilities for discrimination do not become a reality. As is already acknowledged in the Human Rights and Technology Discussion Paper within section 6.3 ‘Lawfulness’,⁸⁷ discrimination based on race is already explicitly illegal in almost all states, but there can be many weaknesses when it comes to the letter and application of these statutes.

9.4.1.1. The Australian Human Right Commission must urge states to craft and implement specific statutes or regulations to disallow discrimination targeting racial and indigenous minorities now as artificial intelligence continues to pervade new areas of everyday life.

9.4.1.2. Privacy laws should also be highlighted as a potential for conflict in the near future as most states have not updated or addressed the shortfalls present in their respective privacy laws. Most privacy rights are based on centuries old statutes and court decisions and these will not suffice when it comes to understanding how to approach the privacy afforded to citizens regarding artificial intelligence.

9.4.1.3. A few such examples that are not discussed, or are not extrapolated on sufficiently, within the Discussion Paper are ensuring transparency when it comes to artificial intelligence and the decisions it makes for individuals. These changes will make certain that possible discrimination can be quickly recognized and corrected.

9.4.1.4. Companies or other organizations who are collecting data should be made explicitly accountable for the ways in which the gathered information is used and stored. This will assist in organizations self-regulating their data usage and safety to stay within regulatory parameters as specified by an individual state.

9.4.1.5. The Australian Human Rights Council must also push for a ban on using these technologies pervasively in the most harmful sectors of society such as law enforcement or government institutions. This will help ensure that governments remain accountable and trustworthy in their legal enforcement actions and allow international bodies to accurately maintain the human rights present within individual states.

9.4.1.6. Finally, the Discussion Paper should advocate for greater diversity and minority engagement when it comes to creating and implementing this new technology, as this has proven to be one of the most effective ways in which to prevent or fix bias problems that become part of these programs.

9.5. Conclusion

9.5.1. It is crucially important that the Australian Human Rights Council further articulate the risks and problems inherent to any man-made technology, and in turn discuss in depth the steps that states can take now to preempt or mitigate these eventual problems. Artificial intelligence is changing the way in which we all interact with the world around us, and there is almost no conceivable future in which this technology does not continue expanding in its scope and depth. Due to this reality, it is the duty of those concerned with human rights that careful attention is given to the most vulnerable groups of society, and race and indigenous groups are at the forefront of those groups who stand to lose most from poor implementation of new, personalized technology. It should be the passion of all those involved in formulating this new technology that everyone is represented and treated fairly.

Concerns Regarding Class Discrimination

10.1. Concerns of Achieving Democratic AI Technology.

10.1.1. While it is understood that data collection is critical to the development of artificial intelligence technologies, it often does so in a way that involves class discrimination. Australia faces extreme income inequality, and growing divisions of wealth and power. With this in mind, the goal of democratic AI technology in Australia must account for class discrimination as part of human rights. While the human rights and technology discussion paper may have addressed class discrimination to some degree, I do not believe it was extensively discussed, and did not address certain elements. It also did not address the relationship between class discrimination and other bias's in relation to intersectionality. Intersectionality is crucial when discussing the potential threats of AI technology due to the complexity of the prejudices faced by the citizens of Australia. It is important to address the relationship between power and oppression, as well as the complexity of the way it occurs and affects individuals of society.

10.2. Data Collection Bias

- 10.2.1. Data collection by AI technology has instances of potential bias. For example, when collecting data from law enforcement, there is human bias at play. If police officers and other law enforcement ticket certain types of individuals of lower classes and lower neighborhoods at higher occurrence, the data of criminal offenses will therefore create bias in police records. Unequal crime reporting also displays intersectionality as it is not only bias regarding class discrimination, but also other factors. Research shows there is a complex relationship between law enforcement reporting and the interaction of bias concerning class, race, ethnicity, gender, etc. Over representing certain groups based on these biases will create bias data collection by AI technologies. This is called predictive policing. “Predictive policing is the application of analytical techniques particularly quantitative techniques to identify likely targets for police intervention and prevent crime or solve past crimes by making statistical predictions.”⁸⁸ This is done through the usage of data collection by AI technology. These methods exist to allow police to work more proactively with limited resources and develop effective strategies to increase efficiency within law enforcement. However, by applying these predictive AI technology models, we end up experiencing bias.
 - 10.2.2. While the less wealthy may be overrepresented by criminal enforcement data collections, they may also be underrepresented by other types of data collection sets. This can be caused by lack of smartphone usage, which uses GPS technologies to report accidents, traffic, or even report road conditions to city councils. In an example given in study about discrimination, artificial intelligence, and algorithmic decision-making by the Institute of Computing and Information Sciences in the Netherlands, a crowd sourced App called Street Bump, is used to collect data on road conditions like potholes and is used by government to plan roadwork projects.⁸⁹ This results in a bias that favors more wealthy communities with smartphone access, and underrepresents those communities without.
- 10.3. AI Technologies Present Predictable as well as Unforeseen Biases
 - 10.3.1. The purpose of this submission is to present issues of data collection in relation to class discrimination as well as the intersectionality it presents to other types of discrimination.
- 10.4. Recommendations
 - 10.4.1. Government funded research regarding digital human rights within AI technology, and analyze impact regarding class discrimination as well as other discrimination within the intersectionality of the issue.
 - 10.4.2. Require the algorithm to be public.
 - 10.4.2.1. By requiring AI technology algorithms to be public it holds the AI technology accountable. It aids government funded research as well as gives power to individual citizens by allowing for individual

community-based groups and citizens assemblies with power over data collection policy to analyze and research whether there is potential discrimination occurring. Therefore, giving the government the data, it needs to make legislation or enforce laws that control AI technology laws.

10.4.3. Government legislation against class discrimination in AI technology and data collection methods.

10.4.3.1. The Australian government must create legislation in order to effectively avoid unfair differentiation and discrimination based on class. We need regulation to protect human rights, as well as the potential to revise and legislate new laws as other factors of class discrimination present themselves.

10.4.4. Allow for the ability to override AI technology if identified as violating class discrimination laws.

10.4.4.1. It is crucial that the Australian government has the authority to override and enforce laws against AI technology violating class discrimination laws. It is important not only to create the laws and identify the issues but to also have a means of enforcement greater than just what is written down in the law. We must have a bureaucracy in charge of enforcing these laws and protecting the Australian citizens.

Age Discrimination

11.1. Introduction

11.1.1. Artificial intelligence or AI has overwhelmingly become present in our daily lives. With its ever-evolving properties and new developments, AI has assisted people with various tasks to transforming the way we live. Although AI has helped and changed various aspects of our daily lives, it is vital to understand the potential threats it may have against human rights and equal protection laws. The Australian Report fails to mention how companies are not being regulated when using AI in their recruitment process. Understanding how AI promotes racism, ageism and discrimination of all forms is the first step in potentially placing regulations on it.

11.2. AI and ageism

11.2.1. How AI is used in the workplace

11.2.1.1. In recent years, AI has been used in various realms and sectors. More specifically, many companies are using AI to screen their potential employees by using an algorithm. At first glance, using AI to help in the hiring process might seem ideal. However, AI has expressed bias over potential employee's age. This can be done by excluding those who do not have certain characteristics of a certain age group. For example, candidates who do not place an '.edu' email address on their resumes are likely to be discarded from the pool of potential employees as it may indicate that they might be an older alumni instead of a recent college graduate.⁹⁰ Ageism is already prevalent in the workplace and by adding this algorithm on top of it, more cases of age discrimination in the workplace will be brought forward to the courts. Many companies have started to use algorithms in their job application screenings. These companies include Target, Hilton, Pepsi, and Ikea.⁹¹ Amazon is one of the companies who have used AI in its recruiting process. However, their outcome was not very encouraging. Their AI system was programmed to find applicants who have the same qualities as their current employees, who were mostly men. This led the algorithm to favor male applicants over women.⁹² Although this is an example of gender discrimination, one can see how these algorithms can be programmed to exclude a certain type of group. In addition to using AI in the recruitment process, many workplaces are turning to use AI in their daily operations. Some companies are changing their point of sale systems or using tablets or other electronics to carry out their duties. This can lead to older workers struggling to adapt to the new technology. Also, when recruiting, companies may want to look for younger applicants as they are thought to learn quickly on how to use the equipment than older applicants, which is an implicit bias.⁹³

11.2.2. Title XII and ADEA

11.2.2.1. There are many federal laws and statutes that prohibit the discrimination of gender, age, national origin, and many other characteristics in the workplace. For instance, Title XII of the Civil Rights Act of 1964, prohibits employment discrimination on the basis of race, color, sex, religion, and national origin.⁹⁴ Also, the federal government passed the Age Discrimination Employment Act of 1967 (ADEA) which protects individuals who are 40 years of age or older.⁹⁵ Although these two laws were passed in the 1960s, an age where AI was merely beginning, they still serve their purpose in eliminating the discrimination against age in the workforce. Nevertheless, these equal protection laws are still being violated with the use of AI in the workforce.

11.2.3. The Australian Report's failure to call to action

- 11.2.3.1. The Australian Report mentions how AI in the workforce will promote diversity and reduce bias and discrimination when it comes to recruiting.⁹⁶ In addition, it mentions the “regulatory lag.” This refers to the phenomenon where regulations on technology cannot keep up as AI changes and evolves every day.⁹⁷ The Australian Report does mention that AI can be biased towards older workers in the recruitment process due to “historical data that it is itself skewed”⁹⁸ and how there are not enough regulations on these AI programs to stop it. However, it fails to mention a solution to this problem.

11.3. Recommendations

- 11.3.1. Have companies be more transparent when it comes to using AI in their recruitment process. This allows applicants to know how they will be screened and potentially be chosen for the job. It also allows them to know their hiring prospects and whether they should invest time in applying for a certain position.
- 11.3.2. Make companies responsible and accountable in following equal protection laws. This will allow them to adhere to the law. It also discourages bias against older workers. AI should be used for the social good and not to advance a company’s personal goal or discriminatory vision.
- 11.3.3. Have the government try to regulate companies. Technology is changing everyday but we must keep up. Finding a faster and easier way to regulate the new AI is needed as it can help limit the free-range companies have.
- 11.3.4. If companies do use AI to recruit, have them update their algorithms frequently. If they do not update it frequently, then it will screen for a certain group of people and the data will be skewed. It will then not be fair and will discriminate based on age, race, gender or national origin.

11.4. Conclusion

- 11.4.1. Overall, a citizen’s assembly is needed in order to have power over the AI. A citizen’s assembly is comprised of various citizens ranging from different races, gender and age. With this range of different ideas and opinions due to their different backgrounds, they can come to an agreement that will reflect the views of the rest of the country. In addition, AI needs to be regulated in order to eliminate the discrimination it promotes.

Discrimination Against Persons with Disabilities

12.1. Introduction

12.1.1. With the rise of artificial intelligence technology, the Australian Human Rights Commission focuses on protecting minority populations to ensure that the creation and implementation of AI comes with the proper policy, regulation, and ethical codes that promote inclusivity. High Stakes decision making requires the utmost sensitivity as it affects these vulnerable groups to varying degrees. Human Rights Commissioner Edward Santow points to the age-old battle of implicit discrimination in new unregulated technologies that have the potential to cause major shifts across several industries and sectors, while also pointing out the impact on select groups. Among the most sensitive cases is the effect of artificial intelligence, and other emerging essential technologies, on the lives of people with disabilities. It is often subdued in many aspects from education, to government services and job resources.⁹⁹

12.2. Points of Interests: Analysis

12.2.1. Digital inclusion is noted as one of the highest concerns for people with disabilities. Unequal access to the new technologies expresses inequality where access to resources is affected by numerous factors like disabilities. Although new technology exposes the product of artificial intelligence to a more diverse and wide range of people, it can also increase the barriers for people with disability used in ways that are not accessible.¹⁰⁰ The way people with disabilities engage with the new technology, their level of digital literacy, determines their overall opinions and attitudes of the implementation of AI¹⁰¹. This analysis expresses the tactical challenge of creating a new tool that has flexible rules on how the contents of the AI program may be used and exercised and in what form it is presented. The reoccurring example noted is the inability to access online services that cannot be read by screen readers for people with vision impairment and its infringement on human rights¹⁰².

12.2.2. The idea of different forms of engagement due to the varying experience is also reflected through individuals that meet at the intersection of their

identities. The Australian Human Rights Commission notes the example of an Aboriginal person with a disability experiencing barriers to accessing technology as being both Aboriginal and having disability acts as a compounded weight on the individual¹⁰³. The Australian Human Rights Commission notes the impact but does not further press how might this developing issue of intersectionality be solved. Because these individual experiences are not aggregated into a simple problem but rather a range of diverse experiences that call for various approaches, it becomes increasingly important to document and be mindful of the impact, regardless of the intent of the implication of decision making and self-learning software. Therefore, the success of AI depends upon the specific design and use of the technology that is able to articulate barriers and find a variety of synthesized solutions to rectify exclusion and discrimination. Concrete examples of intersectionality and the challenge it poses are given, but not widely discussed.

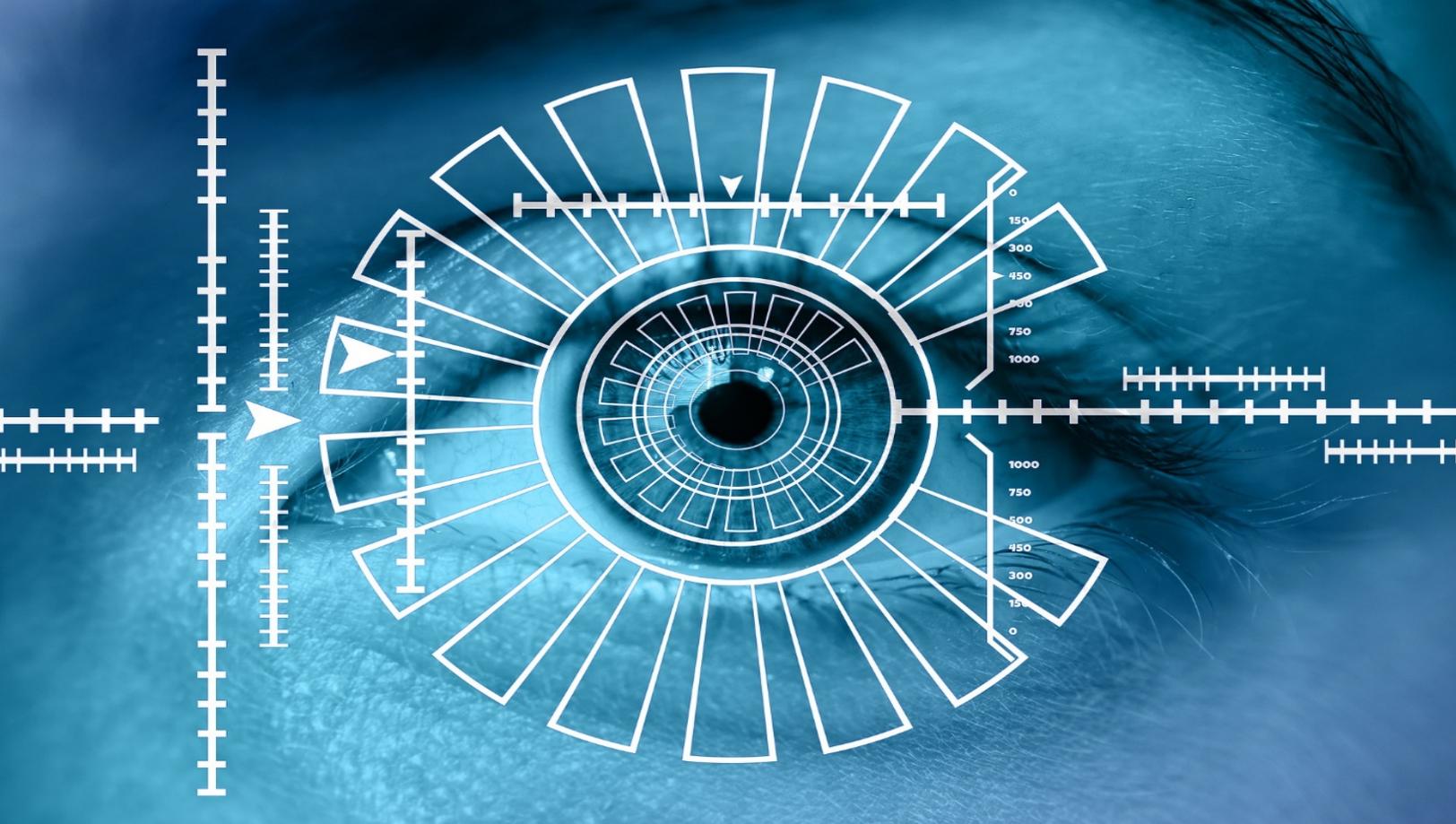
12.3. Approaches in Policy and Regulation of AI

12.3.1. The programming for artificial intelligence is created by humans and therefore has an implicit bias that is unintentional but apparent in its policy and regulation processes. It becomes very important to have a diverse set of voices to participate in the creation of policy and regulation in order to express a variety of approaches that can generate change. The overall discourse of how AI technology and data may be used, what the concerns of the disabled person, how might stakeholders address these concerns, the power to hold creators and users of AI technology accountable for its effect impacting behavior and what factors determine the success of the movement toward AI services and products provides a long list of problems but drives the need for innovation and involvement to find solutions. It also generates a bridging concern for AI developers and Governments that adopt artificial intelligence: public trust.¹⁰⁴

12.3.2. The discussion of policy and regulation manifests in the form of aspirations, constantly relating back to adherence to national human rights ideas that focus on exclaiming that people with disabilities have the right to access to information and technology, right to work, right to freedom of expression and opinion, right to education, right to privacy, political rights and rights to equality before the law, equal legal capacity and effective access to justice.¹⁰⁵ Since the determining factor of the success with the launch of AI remains in the engagement with the technology and the overall trust in the developing systems, protecting the individual and making sure their needs are met while also ensuring safe legal practices of data collection (privacy protection¹⁰⁶) is a fundamental key to establishing positive public relations. Transparency and accountability are the ongoing themes that will be the driving determinants underneath the political, economic and social growth and acceptance.

12.4. Recommendations and Considerations

- 12.4.1. Have a more progressive mindset. Open your mind to minority concerns and actively destroy the system that excludes people with disabilities.
- 12.4.2. Improving Digital Literacy. Making efforts to mechanize Artificial Intelligence to match a universal design for learning and making it accessible online in various formats that meet their needs.
- 12.4.3. Create intersectional inclusivity. Specifically design and use technology that is able to articulate the intersectional barriers and find solutions that help mitigate those issues and fill the gaps where the current system does not fulfil. A better design would improve the mechanics and purpose of the artificial intelligence programs, while also assigning awareness to the complexities of human identities.
- 12.4.4. Allow for the voices of people with disabilities to be part of the planning, execution and enforcement of policy and regulation. Being actively involved in the process, from advocacy to policy writing, ensures that the concerns are heard.
- 12.4.5. Focus policy and regulation recommendations on protecting the privacy of the consumer. To have fully engaged and accepting citizens, work to establish public trust. The first step is being transparent about its use and holding all acting members accountable for their actions concerning the creation and implementation of the artificial intelligence design.



Chapter 9 Critique: Not Going Far Enough in Advancing a Robust Right to Access AI

13.1. Introduction

- 13.1.1. The Australian Human Rights Commission's discussion on the intersection of human rights and technology leaves room for critique as it relates to how the government should respond to human right violations resulting from a lack of access to arising technology. In a society where 'technology has become the gateway to participation across all elements of individual and community life,' a lack of technological access deprives individuals from their inherent right to fully and freely participate in activities.¹⁰⁷
- 13.1.2. Chapter 9 of the Australian Report outlines the importance of ensuring that people experiencing disability have the right to access new 'Digital Technologies,' defined as 'information and communication technologies.'¹⁰⁸ Further, Chapter 9 touches on how the right to access technology (including both obtaining technology and functional access of said technology) impacts the quality of life of those experiencing disability. All in all, this portion of the discussion builds upon the argument that access to digital technology is a human right, as it impacts an array of other human rights. As stated in the Australian Report, 'Human rights are indivisible, interdependent and interrelated. The fulfilment of one right often depends, wholly or in part, on the fulfilment of others.'¹⁰⁹

13.1.3. Although this chapter of the discussion thoroughly examines the efforts of securing the right to access technology to people with disability, this discussion fails to go far enough in securing the right of everyone to access technology. Other populations not living with disability continue to have their right to access ignored by law makers and private corporations. The aim of this critique is to both widen the scope of who has a right to access technology while also providing recommendations on how to secure this robust right to access this technology.

13.2. Populations and Rights to Consider

13.2.1. The right to access Digital Technologies goes far beyond just those living with disability. Chapter 9 of the Australian Report fails to consider other vulnerable populations including, but not limited to: people who are not confident digital users, people who are economically disadvantaged or unemployed, people with lower levels of education, children, and the elderly. Each of these populations possess their own set of needs and barriers when it comes to accessing technology and the Internet. When these needs are not met, an array of other human rights are infringed upon. As outlined in The Convention on the Rights of Persons with Disabilities (CRPD), without a right to access technology, the following rights may be violated:

13.2.1.1. The Right to Work - In today's day and age, a majority of job listings are posted online; however, those without access to Digital Technology or the Internet cannot learn of employment opportunities.

13.2.1.2. The Right to Freedom of Expression and Opinion - Individuals without access to Digital Technologies are limited by the means in which they can express themselves. Further, their access to news and online information is constrained. People with lower levels of education may lack the understanding in how to go about accessing Digital Technology to facilitate these types of activities.

13.2.1.3. The Right to Education - Those without access to Digital Technologies may not be able to fully participate in a proper 21st century education. This directly impacts families with children who are asked to complete homework requiring Internet access and a computer.

13.2.2. Chapter 9 of the report describes in detail how the rights of people experiencing disability are violated but fails to address the violation of rights experienced by other populations. Further, this portion of the discussion only conveys the importance of upholding standards of disability access outlined in EN 301 549 and WCAG 2.1, not including other global standards of access to other populations. This may in part be due to the fact that fewer global standards exist regarding how populations other than those who are experiencing disability may access

specific services and products. Failing to address these human rights violations deepens the stigma surrounding communities experiencing economic and social disadvantages. As a result, these populations may fall prey to more exploitation, racism, sexism, classism, etc.

13.3. Conclusions and Recommendations

13.3.1. Chapter 9 addresses ways in which the government and private sector can catalyze innovative methods to improve the access people with disability have to Digital Technology. Although these ideas may promote more accessible technology to be developed by private corporations and cultivate higher standards for the National Broadband Network, little is proposed on how to advance and secure a robust right to access to Digital Technologies for all people (regardless of their abilities). The following are recommendations to both the private sector and federal government in achieving a secure right to accessing Digital Technology:

13.3.1.1. The government should incentivize private corporations to prioritize providing Digital Technology access to disadvantaged populations. The Australian Communications Consumer Action Network (ACCAN) offered the idea of incentive of tax concessions and grant incentives to businesses that provide accessible technology.¹¹⁰ The idea could be utilized beyond providing technology accessible to those with disabilities. Incentivizing those in the private sector to make their product accessible to those with disabilities does not include making it more accessible to people who do not have disabilities. For example, companies could be ‘rewarded’ for providing feasible payment plans to those who are economically disadvantaged, offering free training to teach those with lower levels of education on how to utilize Digital Technology, etc.

13.3.1.2. Develop industry awards, prizes, and showcases for best business designs and processes to make Digital Technology more accessible to disadvantaged populations. Chapter 9 highlighted a similar idea proposed by ACCAN. These types of events and/or competitions would spur the private sector in developing unique and innovative ways to improve technology access to disadvantaged populations. For example, corporate partnerships with public education systems to provide disadvantaged students access to Digital Technology would demonstrate an alliance with the right to technological access.



Chapter 10 Critique: Not Going Far Enough in Seeking Mandatory Human Rights Education and for Everyone in STEM

14.1. Introduction

- 14.1.1. The Australian Human Rights and Technology Discussion Paper does not do enough for requiring mandatory human rights education in the field of STEM. It limits the obligation of stakeholders to integrate education that would improve technology for minority demographics typically excluded in development. There needs to be more of a push for tech development to include ‘edge-users’ in the discussion of technology production.
- 14.1.2. Chapter 10 of the discussion paper notes that accessibility should be incorporated into the design and development process of technology.¹¹¹ The goal of ‘human rights by design’ is to limit the need for reactive adaptations for accessibility that set higher burdens on some users. The paper sets forward four design approaches that would improve the protection and fulfillment of human rights. The paper makes a decent attempt to address the issue from a perspective that would be beneficial for the improvement of human rights in STEM and advancing the goals of financial stakeholders in the industry. The chapter extensively discusses how education in the STEM industry regarding disability would improve product design for the general consumer. The strongest point of the paper was the Commission’s suggestion of inclusive design which would allow those of diverse backgrounds to be involved in the development phase of STEM projects. This would allow for the technology to “adapt, morph, or stretch to address each design need presented by each individual”.¹¹² The chapter does not discuss the need for education that could result in inclusion for many minorities that

are typically excluded. One of the successful approaches of the paper is acknowledging the need for bringing in minority perspectives for the development of STEM education programs. This point could have been further emphasized in a discussion of the representation of different disabilities, races, ages, and genders.

14.2. Limitations on the education of minority issues and access

14.2.1. The discussion paper discussed ‘human rights by design’ in terms of increasing accessibility for those with disabilities. The paper did not go far enough in discussing how accessibility can be improved for other ‘edge users’, people who are not considered to be among the mainstream users of a product or service. Below are three examples of how the same model needs to be able to other ‘edge users’.

14.3. Limitations on the education of race/ethnic and access

14.3.1. According to the Pew Research Center, 65 percent of those who work in STEM, in the US, are White, 6 percent are Asian, 11 percent are African American, 16 percent are Hispanic.¹¹³ The limited racial diversity in the workforce limits the accessibility considerations that would be needed for racial minority groups. One important goal that should be acknowledged in technology innovation is the importance of cultural diversity. Some initiatives to increase indigenous people’s information technology participation have been criticized as imposing western standards of innovation on the community.¹¹⁴ To preserve the individual rights and identity of such demographics it is essential to include different racial and ethnic minorities in the discussion of design and development.¹¹⁵

14.4. Limitations on the education of gender and access

14.4.1. According to a journal entry in the Social Psychology of Education, STEM workplaces have been negatively impacted by the unconscious stereotyping of women.¹¹⁶ The journal article explains how those who work in STEM may disagree with overt prejudice, they can still contribute to discriminatory practices if they do not consciously engage their egalitarian belief.¹¹⁷ A major contributing factor to unintentional discriminatory results in the field is a lack of training for those in the industry.¹¹⁸ This affects women working in STEM and those whose needs are not reflected in technology development. This results in a lack of accessibility largely for women with disabilities.¹¹⁹ Lack of accessibility can have negative impacts in terms of educational accomplishments especially for those girls in developing countries.¹²⁰

14.5. Limitations on the education of age and access

14.5.1. Lack of accessibility is a problem that has been and will continue to affect the aging population. Issues of accessibility will increasingly put older adults at a disadvantage when it comes to their ability to live and function independently.¹²¹ The issues of the aging demographic have a possibility of intersecting with the issues of the certain disabled

populations as the chances of developing a cognitive impairment increases with age.¹²² Age-related declines in cognitive functions such as memory may harm access to technology.¹²³ The creation of age-related impairments needs to be considered in the development and design of technology. To ensure that the aging population has accessible technology, developers need to be knowledgeable about the barriers created through age-related impairments.

14.6. Recommendations and Conclusion

- 14.6.1. There needs to be more of a push for STEM developers and education institutions to mandate diversity training and adapting inclusive design as the standard for inclusion. To address the issue of accessibility, it is important to look at the issue from the perspective of different racial, gender, class, age, and other diverse identifications. Stakeholders such as education institutions and technology firms should increase the exposure of developers to the issues that affect the demographics through educational mandating educational training. Additionally, stakeholders should initiate studies into the needs of 'edge users' demographics routinely to see if the needs of the community are met through past developments. To address the issues addressed above, it is important to incorporate minority group perspectives in the development and testing phases. It is important to acknowledge that accessibility in technology cannot only be accomplished by the development of it, but also through the distribution.

Notes

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