INTERSECTIONALITY AND RACISM

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What is intersectionality? And why is it important when we are discussing killer robots and racism? With historical and theoretical roots in Black feminism and women of colour activism, intersectionality is a concept that acknowledges all forms of oppression such as ableism, classism, misogyny, and racism; and examines how these oppressions operate in combination.[1]

Taking one identity such as religious affiliation, socio-economic status, age, gender identity, or sexual orientation, and looking at them separately is also a useful undertaking because it allows us to examine how the discrimination of specific identities can manifest differently. When doing so, it is important to keep an intersectional approach in mind as individuals can experience multiple and overlapping points of oppression.

Acknowledging the need for inclusion and visibility of marginalized groups has become increasingly important to activists, scholars and social movements around the world, across a variety of social justice areas. An intersectional approach highlights that all struggles for freedom from oppression are interlinked and enables us to identify the challenges that a lack of heterogeneity poses to the legitimacy, accountability and solidarity present in our movements.

Highlighting the need for social movements to proactively address systemic racism within their organizations, the importance of inclusion, visibility and ownership, is essential in order to break cycles of violence. Focusing on the systemic nature of racism, how racism would be reinforced and perpetuated by killer robots and the potential threat that they will pose to people of colour[2]: intersectionally is a key element of this work.

RACISM AND ARTIFICIAL INTELLIGENCE

"To dismantle long-standing racism, it is important to identify and understand the colonial and historic structures and systems that are responsible for shaping how current governments and institutions view and target specific communities and peoples."[3]

When it comes to artificial intelligence (A.I.) there is an increasing body of evidence that shows that A.I. is not neutral and that racism operates at every level of the design process, production, implementation, distribution and regulation. Through the commercial application of big-data we are being sorted into categories and stereotypes. This categorization often works against people of colour when applying for mortgages, insurance, credit, jobs, as well as decisions on bail, recidivism, custodial sentencing, predictive policing and so on.

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An example of this is the 2016 study by ProPublica, which looked at predictive recidivism and analysed the scores of 7,000 people over two years. The study revealed software biased against African-Americans, who were given a 45% higher risk reoffending score than white offenders of the same age, gender and criminal record.[4]

When we apply biased A.I. to killer robots we can see how long-standing inherent biases pose an ethical and human rights threat, where some groups of people will be vastly more vulnerable than others. In this regard, killer robots would not only act to further entrench already existing inequalities but could exacerbate them and lead to deadly consequences.

FACIAL RECOGNITION

The under-representation of people of colour and other minority groups in science, technology, engineering and mathematics (STEM) fields, means that technologies in the west are mostly developed by white males, and thus perform better for this group. Joy Buolamwini,[5] a researcher and digital activist from MIT, revealed that facial recognition software recognizes male faces far more accurately than female faces, especially when these faces are white. For darker-skinned people, however, the error rates were over 19%, and unsurprisingly the systems performed especially badly when presented with the intersection between race and gender, evidenced by a 34.4% error margin when recognizing dark-skinned women.

Big Brother Watch, a UK based civil liberties organization, launch a report in 2018 titled "The Lawless Growth of Facial Recognition in UK Policing"[6] It exposed the London Metropolitan Police as having a "Dangerous and inaccurate" facial recognition system. It misidentified more than 98% of people who attended a London based carnival celebrating Caribbean music and culture.

Although companies creating these systems are aware of the biases in the training data, they continue to sell them to state and local governments, who are now deploying them for use on members of the public. Whether neglect is intentional or unintentional, these types of applications of new information technology are failing people of colour intersectionally at a disturbing rate.

HISTORICAL, LATENT BIAS

Historical or latent bias is created by frequency of occurrence. For example, in 2016 an MBA

student named Rosalia[7] discovered that googling "unprofessional hairstyles" yielded images of mainly black women with afro-Caribbean hair; conversely when she searched "professional hairstyles" images of mostly coiffed white women emerged. This is due to machine learning algorithms; it collects the most frequently submitted entries and, as a result, reflects statistically popular racist sentiments. These learnt biases are further strengthened, thus racism continues to be reinforced.

A more perilous example of this is in data-driven, predictive policing that uses crime statistics to identify "high crime" areas. These areas are then subject to higher and often more aggressive levels of policing. Crime happens everywhere. However, when an area is over-policed, which is often the case in communities of colour, it results in more people of colour being arrested and flagged as "persons of interest". Thus, the cycle continues and confirmation bias occurs.[8]

Predictive policing has also led to increased levels of racial and ethnic profiling and the expansion of gang databases. Racial and ethnic profiling takes place when law enforcement relies on generalizations based on race, descent, national or ethnic origin, rather than objective evidence or individual behavior. It then subjects targeted groups to stops, detailed searches, identity checks, surveillance and investigations. Racial and ethnic profiling has not only proven to be ineffective and counterproductive[9]; evidence has shown that the over-criminalization of targeted groups reinforces stereotypical associations between crime and ethnicity[10]. The humiliation and stigmatization that results from this can also lead to adverse psychological, physical and behavioral impacts, including the internalization of negative stereotypes and diminished self-worth.

Gang databases are currently being used in a number of regions around the world including in North and South America and Europe. These databases reinforce and exacerbate already existing discriminatory street policing practices such as racial and ethnic profiling with discriminatory A.I.

It is not necessary to be suspected of a crime to be placed (without your knowledge or consent) in a gang database. Yet those in gang databases face increased police surveillance, higher bail if detained, elevated charges, increased aggression during police encounters, and if you also happen to be an immigrant, you could face the threat of deportation.

In New York City, the police department's gang database registered 99% people of colour[11]. A state audit in California found that the "CalGang" database included 42 infants younger than one-year-old, 28 of whom had supposedly "admitted" to being gang members[12] and that 90% of the 90,000 people in the database were men of colour. In the UK, the London police force database, the "Gangs Matrix" have almost 4000 people registered. Of those, 87% are from black, Asian and minority ethnic backgrounds, and 78% are black. A disproportionate number, given that the police's own figures show that only 27% of those responsible for violent offenses are black.

The issue with racial and ethnic bias engrained in A.I. is not only that they reproduce inequalities, but actually replicate and amplify discriminatory impact. For example, having one or several police officers expressing racial bias leads to a certain number of discriminatory cases. Introducing A.I. technology with a racial bias risks amplifying discriminatory instances to an unprecedented scale leading to further exclusion and marginalization of social groups that have been historically racially and ethnically discriminated against.[13]

BENEFITS VS CONSEQUENCES

A.I. is part of our daily lives and has the potential to revolutionize societies in a number of positive ways. However, there is a long history of people of colour being experimented on for the sake of scientific advances from which they have suffered greatly but do not benefit. An example of this is from James Marion Sims, known as the 'father of gynecology' for reducing maternal death rates in the US, in the 19th century. He conducted his research by performing painful and grotesque experiments on enslaved black women. "All of the early important reproductive health advances were devised by perfecting experiments on black women".[14] Today, the maternal death rate for black women in the US is three times higher than it is for white women.

This indicates that when it comes to new information technology, facial recognition systems, algorithms, automated and interactive machine decision-making, communities of colour are often deprived of their benefits and subjected to their consequences. This unfortunate reality where science is often inflicted on communities of colour rather than aided by it must be addressed, especially when these technologies are being weaponized.

LACK OF TRANSPARENCY AND ACCOUNTABILITY

Concerns are being raised about the lack of transparency behind how algorithms function. As A.I. systems become more sophisticated, it will become even more difficult for the creators of these systems to explain the choices the systems make. This is referred to as the "black box problem"[15]. Creators of these systems are incapable of understanding the route taken to a specific conclusion. Opacity in machine learning is

often mentioned as one of the main impediments for transparency in A.I. because black box systems cannot be subjected to meaningful standards of accountability and transparency. This also makes it harder to address discrimination.

Additionally, the question of who will be held accountable for human rights abuses is becoming increasingly urgent. Holding those responsible for the unlawful killings of people of colour by law enforcement and the military is already a huge challenge in many countries. This issue, however, would be further impaired if the unlawful killing was committed by a killer robot. Who would be held responsible: the programmer, manufacturer, commanding officer, or the machine itself?[16] Lethal force by these weapons would make it even easier for people of colour to be at the mercy of unlawful killings and far more difficult to obtain justice for victims of colour and their families.

A SHIFT IN THINKING

The nature of systemic racism means that it is embedded in all areas of society, the effects of this type of oppression will not easily dissipate. Through the continual criminalization and stigmatization of people of colour, systemic racism operates by creating new ways to reinvent itself. The development of weapons that target, injure and kill based on data-inputs and pre-programmed algorithms, is a frightening example of how colonial violence and discrimination continue to manifest in notions of racial superiority and dominance. Automating violence in this regard could not only lead to biased killings, but simultaneously amplify power disparities based on racial hierarchies causing irreparable harm to targeted communities.

According to Reni Eddo-Lodge, racism perpetuates partly through malice, carelessness and ignorance; it acts to quietly assist some, while hindering others.[17] It is within this framework that we must identify and apply an intersectional racial critique on killer robots, whilst also grapple with, and take action to, address systemic racism and the lack of representations in our own organizations and social movements.

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In order to break the culture and circles of violence prevalent in weapons systems, and in society, we must shed light on the root causes of violence, domination and oppression wherever they may lie. We can start by identifying the structures of power and privilege that exist in our own organizations, by looking at whose voice is not present; and confronting misuse of power and the occupation of space. In doing so, we can foster movements that are truly global and representative of all peoples from different walks of life, cultures, and communities.

ENDNOTES

1   Davis 1981, Hooks 1981, Moraga and Anzaldúa 1981, Lorde 1984, Crenshaw 1989.

2   A shorthand term to describe ethnic minorities or people who are not white. To date, it is widely used and seen as a "politically correct" terminology, however, it is not without controversy.

3   The Union of British Columbia Indian Chiefs, https://www.ubcic.bc.ca.

4   Julia Angwin, Jeff Larson, Surya Mattu and Lauren Kirchner, "Machine Bias", ProPublica, 2016, https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing.

5   Joy Buolamwini, Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification, 2018

6   Big Brother Watch, The Lawless Growth of Facial Recognition in UK Policing, https://bigbrotherwatch.org.uk/wp-content/uploads/2018/05/Face-Off-final-digital-1.pdf.

7   Rosalia, https://twitter.com/HereroRocher/status/717457819864272896.

8   Science Daily, https://www.sciencedaily.com/terms/confirmation_bias.htm.

9   Report of the Special Rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism, Martin Scheinin, UN Doc. A/HRC/4/26 (2007), para. 52.

10 Inter-American Commission on Human Rights, 153d Period of Sessions, "Racism in the Justice System" Hearing, Oct. 27, 2014; NYCLU, Testimony Before City Council Public Safety & Courts and Legal Services Committees On Summons Court Operations and Impact, Dec. 15, 2014.

11 "NYPD Chief of Detectives Dermot Shea... stated that 99% of the roughly 17,200 individuals in the NYPD's gang database are people of color, with 65% being African-American." See Nick Rummel, NAACP "Groups Demand to See Criteria for NYPD Gang Database", Courthouse News Services, August 8, 2018. https://www.courthousenews.com/groups-demand-to-see-criteria-for-nypd-gang-database.

12 Maureen Cavanaugh, Michael Lipkin, "State Audit Finds Serious Lapses in CalGang Database," KPBS News, August 16, 2016. https://www.kpbs.org/news/2016/aug/16/state-audit-finds-serious-lapses-calgang-database.

13 Privacy International, https://privacyinternational.org.

14 Harriet A. Washington, "Medical Apartheid The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present", Doubleday, 2006

15 Matthew Cress, January 10, 2019, http://artificialintelligencemania.com/2019/01/10/the-black-box-problem.

16 Campaign to Stop Killer Robots https://www.stopkillerrobots.org.

17 Reni Eddo-Lodge, http://renieddolodge.co.uk.