Amnesty International is a movement of 10 million people that mobilizes the humanity in everyone and campaigns for change so we can all enjoy our human rights. Our vision is of a world where those in power keep their promises, respect international law, and are held to account. We are independent of any government, political ideology, economic interest, or religion and are funded mainly by our membership and individual donations. We believe that acting in solidarity and compassion with people everywhere can change our societies for the better.
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The widespread adoption of digital technologies has permanently transformed the balance of power in economies, governments, and societies around the world. Over half the world’s population now uses the internet or social media networks to receive access to news and public information, communicate, work, and learn.\(^1\) For more than 4 billion people, technology has become central to securing a place in public life, and is foundational to the enjoyment of a range of human rights.\(^2\) This is a reality that has only been exacerbated in the wake of the ongoing COVID-19 pandemic, a period of unprecedented setback for poverty reduction around the world, during which an additional 93 million people were pushed into extreme poverty.\(^3\) The United Nations (UN) and other human rights bodies have delineated the importance of technology as a means for advocating for, defending, and exercising human rights, even as the same tools and systems are also “used to violate rights, especially those of people who are already vulnerable or being left behind.”\(^4\) It is clearer than ever that digital technologies, particularly in the absence of robust regulation, can amplify and exacerbate underlying social, racial, and economic inequalities, helping to re-entrench patterns of structural exploitation.

As human rights defenders and communities have observed throughout each succeeding wave of technological development, technology does not function in a vacuum, but rather, will always have an unpredictable and transformative potential that corresponds to geographic, political, and linguistic context — that is, the material conditions of the people whose lives are impacted by it. Yet this context is often not taken into account by policymakers and technology companies, who may fail to take a diversity of viewpoints and experiences into account.\(^5\) Amnesty International and other human rights organizations have long documented the various human rights abuses that are perpetuated by technology giants and the tools they have created, as well as uses of technology that have been instrumentalized to quell dissent, exacerbate underlying inequalities,\(^6\) normalize surveillance, and encourage political violence.\(^7\) But in the midst of an increasingly unequal and unfree world, and particularly as new forms of technology are integrated into more areas of public life, the reality of tech-enabled inequality should be considered a growing emergency. And because of the growing role of the digital sphere in more areas of daily life, it is definitively the case that technological development will be central to understanding how people and communities defend and access their human rights today and into the future.


\(^5\) Road map for digital cooperation: implementation of the recommendations of the High-level Panel on Digital Cooperation Report of the Secretary-General. UN Doc. A/74/821.


TECHNOLOGICAL DEVELOPMENT WILL BE CENTRAL TO UNDERSTANDING HOW PEOPLE AND COMMUNITIES DEFEND AND ACCESS THEIR HUMAN RIGHTS TODAY AND INTO THE FUTURE.

This briefing will serve as a primer for those seeking to understand some of the most salient ways in which technology and inequality (economic, racial, gender, disability, and linguistic) are deeply connected, particularly at a moment of escalating economic and political destabilization. It will also seek to build upon Amnesty International’s work on technology to show how the digitization of more areas of life is central to the ongoing fight for human rights around the world. By providing a broad overview of the major areas of concern, it will seek to help create a conceptual framework for policy actors, communities, and stakeholders working on human rights issues at the intersection of technology and inequality. Since the issues detailed here should be no means be considered exhaustive, this analysis is also an invitation to a global conversation around the growing reality of technology harms. As the first of four outputs related to Amnesty International’s work around technology and human rights, this briefing is ultimately intended as a resource to activists, impacted communities, civil society and human rights organizations, technology companies, and other stakeholders who are grappling with the growing global crisis of inequality.

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In the absence of a single definition of technology and alongside the accelerating pace of technological innovation, human rights advocates and policymakers have, understandably, struggled to consolidate an understanding of effective interventions aimed at addressing technology-related harms. However, as in the context of any work examining structural inequality, language is power. The imprecise and unexamined use of language and definitions around many of today’s emerging technologies is, in large part, how tech-enabled inequality has been allowed to flourish. Today’s digital technologies have their roots in historical systems used for categorizing, cultivating, and instrumentalizing personal data, and can best be viewed as an extension of these pre-existing systems of power. Furthermore, information and communication technologies (ICTs) that collect and store personal information and influence individual or collective behavior have been an area of particular concern for the human rights community, even prior to the digital era.

For the purposes of this briefing, *technology* refers to a broad range of data-driven tools that capture, store, and manage large amounts of information, including devices, networks, and algorithmic systems.

Since most of these tools and systems are, by definition, products made available for use by private corporations, the very business model and structure of these tools is usually rooted in and structured by a business model of extraction and accumulation of data for the purpose of profit. The ‘datafication’ of more areas of public and private life, including healthcare, welfare, education, public safety, and the workplace, has coalesced around several specific uses of technology that violate human rights.

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Building upon previous work by Amnesty International and others, this briefing will focus on the following technologies, which are frequently interconnected and which present the greatest scope of risk for perpetuating structural inequality:

**Information Sharing Platforms and Devices**

Information sharing platforms and devices connected to internet networks, including social media;

**Algorithmic Systems and Decision-Making Tools**

Algorithmic systems and decision-making tools, which use a set of mathematical instructions or rules that calculate an answer to a question or problem, often without a human involved in the decision-making process;\(^{14}\)

**Surveillance, Monitoring, and Policing Technologies**

Surveillance, monitoring, and policing technologies deployed by public and private actors, which are generally designed and deployed to monitor or manipulate human behavior, often without a person’s consent or knowledge.\(^{15}\)


Over the past several decades, there has been an unprecedented increase in global inequality and extreme wealth disparity, with the world’s poorest now owning just 2% of the world’s wealth and the world’s richest owning 76%.

This has also resulted in a rapid rise in poverty as a driving force of human rights violations around the world, as well as increasing adoption of policing and governing tools that effectively criminalize poverty itself. As Amnesty International and other organizations have argued, meaningful efforts at mitigating structural inequality must be rooted in an acknowledgement of its material and historical roots, most of which are directly linked to colonial systems of oppressive and violent economic extraction. In so doing there is a need to engage an intersectional approach that acknowledges how various forms of marginalization (racial, gender, socio-economic, disability, etc.) do not function separately, but are exacerbated by one another.

The intertwined forms of inequality are often exacerbated by seemingly “neutral” systems of power that are frequently digitally enabled, or which are extensions of existing inequalities outside of the digital realm.

Today’s global crisis of inequality is reflective of decades of policymaking that have deliberately prioritized the interests of the powerful against the needs of the global majority — the technical sphere merely extends this power imbalance. Such imbalances are also directly linked to recent history; global inequalities of race, gender, disability, and income are explicitly rooted in historical systems of oppression and extractive political economies, including “racist economic extraction and exploitation that occurred during the colonial era.”

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16 Amnesty International, Promotion of Inclusive and Effective Tax Cooperation at the United Nations Submission to the UN Secretary General, 78th General Assembly Session, 5-19 September 2023 (Index: IOR 40/5655/2023).
Broadly speaking, inequality occurs along multiple vectors, including gender, socio-economic, disability, and race. As such, it must be understood as pertaining to violations of both civil and political rights (right to freedom of expression, right to privacy, etc.) but also economic and social rights (right to social security, right to housing, right to an adequate standard of living, right to decent working conditions, etc.).

Marginalized, oppressed, or groups otherwise facing structural barriers are also often among the first on whom new forms of technology or digitally enabled tools are tested, and for whom there the fewest safeguards when these tools cause undeniable and serious harm. It is also the case that it is often these groups who rely most on digital systems, and for whom uses of technology can be particularly transformative or impactful. For the purposes of this report, such groups include, but are not limited to:

- People with insecure citizenship status, including people without legal status, refugees, stateless people, and people experiencing forced displacement;
- People who experience structural racism, including Black, Indigenous, and other racialized groups, as well as other ethnic and racial minority or historically persecuted groups;
- People experiencing poverty or economic insecurity, including people experiencing homelessness and/or other groups who interact with state welfare or social protection services;
- Incarcerated or formerly incarcerated people, including those who may have had interactions with the criminal justice or police systems;
- Children and young people, who face particular risks in accessing their rights, particularly with regard to their protection and empowerment online;
- People with disabilities, including people with intellectual or mental health disabilities, many of whom may have interacted — often involuntarily — with criminal justice, public health, and/or welfare systems.

Just as wealth and social inequalities themselves are the results of deliberate policy decisions, inequalities that are perpetuated, enacted, or exacerbated by digital technologies are also the result of deliberate and distinct choices on the part of governments and corporations. As such, they can be challenged, mitigated, or prevented with appropriate and clear strategies by governments and corporations, as well as the human rights community and other stakeholders.


4. A HUMAN RIGHTS AGENDA FOR TECH EQUITY

TECHNOLOGY-ENABLED INEQUALITY HAS IMPLICATIONS FOR ALMOST EVERY AREA OF DAILY LIFE AND GOVERNANCE, BUT THIS BRIEFING WILL FOCUS ON TWO CORE AREAS OF HUMAN RIGHTS HARDS AT THE INTERSECTION OF TECHNOLOGY AND INEQUALITY THAT HAVE EMERGED AS PRESSING AND CONSISTENT AREAS OF CONCERN.

First, as Amnesty International’s previous research has demonstrated, governments and private sector actors are frequently responsible for violations and abuses of the rights to both non-discrimination and equality, particularly where certain automated decision-making tools have been shown to replicate racial, economic, gender, and other structural biases and forms of discrimination.30

Second, the past five to ten years, in particular, have revealed a depth of rights violations and abuses concerning the right to fair working conditions globally. This is particularly the case as more technology and data-centric private actors have continued to exert tremendous influence over both the type and conditions of labor performed around the world. This is of particular concern where social security and welfare systems have experienced drastic cuts, leaving many increasingly desperate and dependent on the whims of the private sector for accessing survival rights such as food, housing, and healthcare.

Human rights violations and abuses can be understood as cross-cutting and interrelated, particularly in the context of technology and inequality. Importantly, the right to social security31 and economic, cultural, and social rights more broadly — that is, the obligation of states to provide the conditions for people’s right to an adequate standard of living, particularly in the context of an ever more precarious 21st century — are interwoven among all of these rights. Furthermore, the right to privacy is also a core concern that intersects with both the right to non-discrimination and fair working conditions. A human rights agenda focused on addressing the harms of tech-enabled inequality, in other words, must also keep in mind that tech equity, which is made possible only by the protection of economic, social, and cultural rights alongside political and civil rights, is crucial, particularly with regard to an increasingly tech-reliant world.32

30 It is also important to note that the right to non-discrimination is a cross-cutting right, on which the enjoyment of all other rights is fundamentally based. For more, see Committee on Economic, Social, and Cultural Rights, General Comment No. 20 (E/C.12/2000/20) 10 June 2009, https://www2.ohchr.org/english/bodies/cescr/docs/gc/e.c.12.gc.20.doc.

31 “A key factor behind the economic insecurity driving many protests is the fact that the vast majority of people simply do not enjoy their right to social security, realized through the implementation of social protection measures, in a way that would protect them from crises and precarity and support them to recover.” From Amnesty International, Rising Prices, growing protests: the case for universal social protection (Index: POL 40/6589/2023).

5. THE RIGHT TO EQUALITY AND NON-DISCRIMINATION

BACKGROUND AND LEGAL FRAMEWORK

One of the most significant impacts of tech-enabled inequality on human rights is on the right to equality and non-discrimination. Since the inception of tech-enabled systems of information management, particularly in those adopted by states, many such tools have been linked to repeated patterns of racial, economic, and social discrimination. Information management systems use datasets and algorithms which are frequently either ingrained with the human bias of their creators, or which are not adequately transparent or accountable for the patterns of bias or discrimination which they may replicate. This is an area of particular concern for human rights practitioners where digitally enabled tools or systems may be integrated into tools or systems that are core to the realization of economic, social, and cultural rights, such as individuals’ ability to access housing, credit, or government services, or which may arbitrate a person’s predetermined credibility or level of protection within the criminal justice or policing systems.

The principles of equality and non-discrimination are among the key concepts of international human rights protection, protected in various human rights instruments, including the International Covenant on Civil and Political Rights (ICCPR), the Convention on the Rights of Persons with Disabilities (CRPD), the International Covenant on Economic, Social and Cultural Rights (ICESCR), and others. Under these instruments, all persons are guaranteed equal protection of the law, and discrimination “on any ground such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status” is prohibited, as well as discrimination against persons with disabilities.

STATE AND PRIVATE SECTOR OBLIGATIONS

The “state-business nexus” in international human rights law presents complex implications for the designation of responsible parties with regard to the right to non-discrimination and equality. States ultimately bear the primary obligation to respect, protect and fulfill all human rights, including the right to equality and non-discrimination, which is itself key to many other rights. Under international law, states must not engage in or support discriminatory or
otherwise rights violating actions or practices in any context, including in the context of designing or implementing data driven or technology enabled systems. In addition to the obligation to refrain from discriminatory measures, states also have a positive obligation to prevent, stop or punish discrimination by public and private sector actors, and to promote equality and other rights, including through binding laws. States should also clearly set the expectation that all businesses enterprises within their territory or jurisdiction respect human rights throughout their operations.

**PRIVATE SECTOR ACTORS HAVE A RESPONSIBILITY TO RESPECT HUMAN RIGHTS, A RESPONSIBILITY WHICH EXISTS INDEPENDENTLY OF STATE OBLIGATIONS.**

As part of fulfilling this responsibility, private sector actors need to take ongoing proactive and reactive steps to ensure that they do not cause or contribute to human rights abuses — a process called ‘human rights due diligence.’ According to the United Nations Guiding Principles on Business and Human Rights (UNGPs), “companies should undertake human rights due diligence across their activities and business relationships to identify, prevent, mitigate, and account for how they address the actual and potential adverse human rights impacts” of their products or services, as well as across their sites, factories, supply chains, and corporate offices. Private sector actors that develop and deploy digital technologies should initiate human rights due diligence as soon as possible in the development of a new activity or relationship, as well as integrating rights-holder perspectives and experiences into the process of developing, testing, and deploying new tech products. The deployment and testing of machine learning systems, in particular, should follow a human rights due diligence framework to avoid fostering or entrenching discrimination and to respect human rights more broadly. This process involves three core steps:

1. Identifying potential discriminatory outcomes,
2. Taking effective action to prevent and mitigate discrimination and track responses,
3. Maintaining transparency about efforts to identify, prevent, and mitigate against discrimination in machine learning systems.

These principles apply broadly to other uses of technology within the scope of this briefing, as well.

Finally, the UN Human Rights Council’s independent expert on racism has noted that an explicitly anti-racist agenda for addressing and eliminating forms of discrimination is core to the human rights work of the 21st century. An anti-racist approach to human rights due diligence processes in the context of technology is crucial, and must be present throughout the development and deployment of any digitally enabled product.
Tools that utilize algorithmic decision-making\textsuperscript{50} for managing access to public benefits provide a critical example of how technology can exacerbate various forms of social and economic inequality. A growing number of states around the world have adopted algorithmic decision-making in some form in the distribution of public benefits, which in turn has replicated existing forms of racial and other forms of discrimination.\textsuperscript{51} Although such systems are often cited as a method by which states can streamline social services and prevent fraud, a more consistent outcome is the penalization of society’s most marginalized groups for attempting to access their rights and/or essential services.\textsuperscript{52} For example, many municipalities and governments have adopted some form of automated or machine enabled decision-making in tools for managing or making decisions around whether an individual qualifies for government assistance. These systems have been shown to disproportionately associate people who already experience one or multiple forms of marginalization with higher criminal, financial, or social risk.\textsuperscript{53} Non-discrimination in the development, implementation, and administration of technology is a key component of social protection. This is of particular importance when affected populations must provide digitized forms of identity and other private data in order to access essential services, or when such data may be shared with other state and non-state actors, including employers, criminal justice or police agencies, healthcare providers,\textsuperscript{54} and financial institutions.

As outlined by the UN Special Rapporteur on contemporary forms of racism, a move toward digitized welfare systems is almost guaranteed to replicate discriminatory practices by states, and interventions that address this potential are crucial.\textsuperscript{55}

\textbf{ALGORITHMIC INEQUALITY}\textbf{\large DIGITIZED STATE WELFARE SYSTEMS WILL REPLICATE DISCRIMINATORY PRACTICES.}

\textsuperscript{50}A set of mathematical instructions or rules that calculate an answer to a problem or question, which is then used, with or without the input of a human, to make predictions or decisions. See also: Amnesty International, Xenophobic machines: discrimination through unregulated use of algorithms in the Dutch childcare benefits scandal (Index: EUR 35/4686/2021).
\textsuperscript{55}UN Special Rapporteur on contemporary forms of racism, racial discrimination, xenophobia and related intolerance, 18 June 2020, UN Doc. A/HRC/44/57, para. 42.
CASE STUDY: XENOPHOBIC MACHINES

In the report *Xenophobic Machines*, Amnesty International built upon evidence gathered by journalists, activists, and civil society to expose how racial profiling was inadvertently embedded into the algorithmic system used to determine whether claims for childcare benefits were flagged as potentially fraudulent in the Netherlands.

**THIS SYSTEM INADVERTENTLY LED TO THE DUTCH GOVERNMENT DENYING ESSENTIAL SERVICES TO TENS OF THOUSANDS OF PARENTS AND CAREGIVERS FROM LOW-INCOME FAMILIES, WITH DISPROPORTIONATE IMPACT ON ETHNIC MINORITIES.**

Without meaningful human oversight, the self-learning mechanism in the algorithm resulted in a discriminatory pattern whereby racialized characteristics resulted in higher “risk” scores for vulnerable families. This is an example of how such “black box” systems, which are being adopted widely throughout the world in the public and humanitarian sectors, should be of concern to those looking to protect the right to non-discrimination for marginalized groups.56

The right to non-discrimination and equality is also crucial in the context of increasing concern about the growing use of digitization and algorithmic decision making in the criminal justice and policing sectors around the world. Researchers have shown how digitized surveillance and facial recognition systems replicate dangerous forms of discrimination against racial and ethnic minorities in ways that criminalize the very existence of such populations, many of whom are already impacted by the effects of structural discrimination and vulnerability.57 Other forms of data or technology enabled tools in the criminal justice system, including pretrial risk assessment systems and predictive policing systems, have been shown to display discriminatory biases toward marginalized groups in ways that do not align with international law and standards on non-discrimination and equality under human rights law.58
CASE STUDY: FACIAL RECOGNITION TECHNOLOGY

Another example of how technology enabled tools can contribute to growing inequality while also threatening rights to privacy and non-discrimination is the use of facial recognition systems in cities and municipalities around the world. As Amnesty International has documented in several reports and its ongoing Ban the Scan campaign,

FACIAL RECOGNITION SYSTEMS FOR IDENTIFICATION ARE A FORM OF MASS SURVEILLANCE THAT OFTEN USES DATA SCRAPED FROM MILLIONS OF IMAGES ON SOCIAL MEDIA WITHOUT PEOPLE’S CONSENT.

This data is then systematized by security and police agencies from New York City to New Delhi, and has been shown to demonstrate biases that disproportionately criminalize racialized groups.59

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An increasingly critical component of today’s global inequality crisis and its intersection with technology is the growing scarcity of safe, fairly compensated, and meaningful work, particularly for racialized groups, women, and people who have experienced structural inequality or colonial extraction. Wealth has become concentrated in the hands of fewer powerful individuals and entities, while workers have faced rising inflation and stagnant or falling wages, particularly for those in the informal economy. All of these trends have the effect of making it more difficult for people to access their rights to food, housing, and health.

For many informal or low income workers, the impact of the climate crisis and the COVID-19 pandemic have also introduced dangerous new hazards into the daily working conditions of many of the least protected jobs, such as construction or manual laborers, delivery or ride-share workers, and care workers. This is at the same time as more governments around the world make unionization or other forms of organizing for workers’ rights more difficult. This leaves an increasing number of people subject to the conditions and demands set by private employers with little or no access to redress when working conditions become unsustainable or dangerous.

The right to safe and fairly compensated work is protected by a number of different instruments under international law. Under Articles 6 and 7 of the International Covenant on Economic, Social and Cultural Rights, states are obligated to protect individuals’ right to “just and favorable conditions of work,” including “equal wages and equal renumeration,” as well as “safe and healthy working conditions” and “rest, leisure, and reasonable limitation of working hours.” The same framework also guarantees the right of all individuals to “a decent living for themselves and their families,” and protects the right of workers to strike and unionize. Related protections include the right to social security, the protection of young people and children from economic and social exploitation, the right to physical and mental health, as well as the rights to an adequate standard of living encompassing the rights to “adequate food, clothing, and housing.” Furthermore, the International Labour Organization (ILO) Declaration of the Fundamental Principles and Rights at Work also affirms the obligations and commitments made by actors that are members of the ILO, including the elimination of discrimination of any kind in the workplace, and providing a safe and healthy working environment.

66 International Covenant on Economic, Social and Cultural Rights, Articles 6-7, pg. 2-3.
68 ICESCR, Articles 9-11.
Many of the ways in which inequality is perpetuated by technology is a result of decisions or policies by private companies. Companies have a responsibility to respect all human rights wherever they operate in the world and throughout their operations, including in the area of fair employment. This is a widely recognized standard of expected conduct as set out in international business and human rights standards including the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises.

This corporate responsibility to respect human rights is independent of a State’s own human rights obligations and exists over and above compliance with national laws and regulations protecting human rights. As the protection and respect of human rights continues to intersect more with the decisions of corporations, a legal framework that accounts for the corporate responsibility to respect human rights will be increasingly relevant.

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Under the UN Guiding Principles, “business relationships” include “relationships with business partners, entities in its value chain, and any other non-State or State entity directly linked to its business operations, products or services.


The UN Guiding Principles establish that to meet their corporate responsibility to respect, companies should have in place an ongoing and proactive human rights due diligence process to identify, prevent, mitigate and account for how they address their impacts on human rights. When conducting human rights due diligence, a company may identify that it may cause or contribute to — or already be causing or contributing to — a serious human rights abuse. In these cases, companies must cease or prevent the adverse human rights impacts. Where impacts are outside of the business enterprise’s control but are directly linked to their operations, products, or services through their business relationships, the UN Guiding Principles require the company to seek to mitigate the human rights impact by exercising leverage, or seek to improve leverage where leverage is limited, including through collaboration if appropriate. The responsibility to respect human rights requires companies to avoid causing or contributing to human rights abuses through their own business activities, and to address impacts in which they are involved, including by remedying any actual abuses. It also requires companies to seek to prevent or mitigate adverse human rights impacts directly linked to their operations, products, or services by their business relationships, even if they have not contributed to those impacts.
The technology sector has, in many ways, led the way in setting global trends for both workplace culture and working conditions, particularly with the growing influence of platform labor — or what is sometimes referred to as ‘gig work.’ The rise of the gig economy has transformed some of the most essential industries around the world, including food delivery, shipping of goods, ride sharing and travel, care work, and beyond. By providing an on-demand employment and goods delivery service, many companies in the gig economy have focused on labor that was often previously undocumented or in the informal economy, and have touted the benefits of their approach by citing its efficiency, flexibility, and accessibility. However, when companies are able to avoid legally classifying workers as employees, and therefore avoid the legal protections afforded to them, workers are at risk of more precarious and dangerous working conditions, and have little recourse to restitution or the ability to opt out, particularly in increasingly scarce and competitive labor markets.

The case of the platform economy and the rise of so-called gig work provides many examples of how the incursion of technology into existing or emerging labor markets often serves as a way of facilitating or justifying the continued or further exploitation of already vulnerable workers, thus presenting a potential violation of these workers’ right to fair working conditions and social protection.

**IMPACT OF THE GIG ECONOMY**

An increasing number of these affected populations may also struggle to find full time employment with adequate pay and protections elsewhere, and may therefore have few options for opting out of adverse or abusive work conditions. The risks faced by workers in the gig economy are wide-ranging, and include increased risk of violence and harassment, as well as reports of algorithmically enabled wage theft or discriminatory wage or management practices, many of which are made possible by practices of technologically enabled workplace surveillance.

Some of these practices have included the use of biometrics or workplace surveillance to encourage workers to meet higher quotas, work at an increasingly fast pace, or to discourage taking breaks, including in ways which may penalize their attempts to protect their safety and well-being.

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CASE STUDY: CARE WORK IN THE GIG ECONOMY

One example of the multiple forms of precarity enacted upon workers in the gig economy is the growing digitization of the care work sector, labor which has long been dominated by immigrant women, many of whom work without legal documentation.\textsuperscript{84} While other gig economy sectors, including ride sharing and food delivery, also disproportionately enact poor working conditions on immigrants, refugees, and racialized groups, care work presents additional vulnerabilities.\textsuperscript{85} Care work — a sector which includes childcare, housecleaning services, elder care, the care of disabled people, home health aides, and more — is one of the world’s fastest growing and most essential sectors, and is increasingly facilitated through platforms, mobile apps, and websites where care workers are matched with people in need of their work.\textsuperscript{86}

GROWING RESEARCH HAS SHOWN THAT CARE WORKERS ON THE PLATFORM ECONOMY ARE INCREASINGLY SUBJECT TO NEW FORMS OF SURVEILLANCE AND MONITORING,\textsuperscript{87} and that platforms often use vague ranking systems for workers that facilitate lower wages and poorer working conditions for racialized groups.\textsuperscript{88} Meanwhile, the dominance of internet or mobile-based job markets for care workers can also exacerbate racial and economic digital divides, as workers who lack proficiency with or access to the internet, may be shut out of potential work.\textsuperscript{89}


\textsuperscript{87} Alexandra Mateescu, “Electronic Visit Verification. The Weight of Surveillance and the Fracturing of Care” (November 16, 2021), http://dx.doi.org/10.2139/ssrn.4181895.


Meanwhile, there are business and policy practices in the technology sector itself, as well as in the goods and services being produced, that have been shown to directly replicate existing economic, social, and racial inequalities in ways that are not compatible with the human rights to work and decent working conditions. In so doing, they are reinforcing a cycle of growing instability and precarity.

**CASE STUDY: “GHOST WORKERS” IN THE TECH SECTOR**

The role of so-called ‘ghost workers’90 in the supply chain of many social media and technology companies, including labeling images, moderating content, and other tasks that are key to the technical function of many technology products, has led to widespread labor exploitation, exacerbating patterns of labor inequality around the world. Often working for third-party contractors in countries or contexts with weak legislative frameworks around labor laws, workers who help train or manage technical products through what has been termed ‘digital piece work’91 are often subject to crushingly low wages and unsafe working conditions, as well as severe mental health risks,92 as in the case of workers who are tasked with moderating or reviewing violent or otherwise harmful content that violates the community standards of social media platforms. When considered alongside the value that is created for platforms by this work, as well as the value in enormous costs saved in potential lawsuits or fines for legal violations, the extreme downward pressure on equal pay and fair working conditions for these workers becomes more clearly a matter of companies shirking their obligation to respect human rights.

Finally, with the rise in availability of generative AI tools, most of which rely upon hidden human labor and which are trained on the labor and data of people around the world, risks to labor security and workers’ rights in the gig economy and beyond are only set to grow in scope and significance, particularly as private sector actors threaten or begin eliminating or changing the nature of jobs in response.93

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92 Billy Perrigo, ‘Exclusive: OpenAI used Kenyan workers on less than $2 per hour to make ChatGPT less toxic,’ *Time*, January 18, 2023: https://time.com/6247678/openai-chatgpt-kenya-workers/.
An illustrative example of how technology, inequality, and labor intersect is the case of workers performing content moderation for many major technology companies, and the adverse workplace conditions they face. Content moderation is an enormous and largely hidden component of many tech platforms’ business model, in which content that violates a platform’s terms of service is identified, flagged, investigated, and deleted, shielding users from viewing violent, dangerous, or abusive content, and protecting the company from legal liability when such content violates local laws. It is generally the case that human reviewers are required to perform this labor, and many companies — most notably Meta — have made a practice of contracting with third-party companies to outsource this labor to workers in countries where wages are low, legal protections are weak, and in which people are more likely to be drawn to content moderation as relatively stable form of labor.

**Repeate...**

Content moderation is key to the business model of major technology companies, and the **systemic exploitation of workers in service of creating enormous value for such corporations** demonstrates clearly how an essential component of today’s technology creates, exacerbates, and encourages multiple and intersecting inequalities across the world.94
The rights to non-discrimination and privacy are also issues of concern for labor and workplace justice. For example, starting from the start of the labor life cycle, various forms of technology, as well as issues of access and the digital divide, have been shown to replicate discrimination in hiring and recruitment tools. As employers increasingly outsource decisions concerning potential candidates to algorithmic systems, as well as to require application processes that rely on internet access, such tools have been shown to replicate patterns of bias against groups who already are at disproportionate risk of discrimination in the workplace, including racialized groups, women, people experiencing poverty, and people with disabilities. In addition, the rise of automated or tech-based workplace management tools have been shown to introduce new kinds of vulnerability for such groups, including migrant workers in the agricultural sector, rideshare drivers and delivery workers, warehouse workers, and others.

Various forms of tech-enabled workforce management tools can also enable employers to pressure workers to produce at increasingly unsustainable rates or to disregard critical workplace safety practices, often at the risk of penalization or lost wages. More broadly, across many sectors of the formal and informal economy, technology enabled workplace management tools can allow employers to surveil, control, and penalize workers with greater ease and fewer avenues to resource.

The introduction of such tools, particularly those that are algorithmically enabled, can be used in ways that have serious consequences for employees, including ‘black box’ systems that are used for the purpose of adjusting wages, distributing bonuses or raises, or making hiring or severance decisions.

Since many workers in these sectors disproportionately represent groups who already face special vulnerabilities in public life, and particularly in the workforce, the overrepresentation of tech-enabled workplace monitoring tools results in a kind of de facto discrimination against workers who already experience violations of the right to equality and non-discrimination in other areas of life.

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97 Chris Ramsaroop, Reality Check 101: Rethinking the impact of automation and surveillance on farm workers, Data & Society: Points, Medium (2019): [https://points.datasociety.net/reality-check-101-c6e601c5b9a3](https://points.datasociety.net/reality-check-101-c6e601c5b9a3).


The right to privacy is also an issue of concern for equitable hiring, and other practices in the workplace, particularly as the rise of digitally or algorithmically enabled management tools continues, and as more human labor is needed to manage or build these systems.

**ALGORITHMICALLY ENABLED RECRUITMENT TOOLS, FOR EXAMPLE, HAVE BEEN REPEATEDLY SHOWN TO COLLECT AND SHARE PRIVATE DATA ABOUT PROSPECTIVE EMPLOYEES,** in such a way that not only violates their privacy rights, but which also may replicate existing patterns of discrimination in the workplace. Meanwhile, workplace management software, including tools such as the automated collection of biometrics and health data, as well as remote monitoring and prediction and flagging tools, have been shown to violate the right to privacy. Again, this is particularly concerning practice when it intersects overwhelmingly with people who are low wage or contingent workers, and who have little or no right to consent or opt out of this data collection and management.

An instrumental example of the intersection of non-discrimination, privacy, and workplace justice is the case of workers across the supply chain of Amazon, an enormously dominant company which, among other services, offers an influential and popular shopping and delivery service that employs more than one million people in the United States alone, as well as an estimated 2.9 million “flex drivers,” who, in many jurisdictions, are classified as independent contractors and therefore not eligible for minimum wage, overtime pay, or many other essential workplace protections. Amazon is a leader in the deployment of new kinds of workplace surveillance technology, widely using technologies like surveillance cameras, wearable or handheld trackers, sensors, and other tools to closely track and monitor the performance of its workers, even when such technologies result in patterns of workplace injuries or violations of workers’ lives and health. In one of Amazon’s largest warehouses, for example, a Minnesota “fulfillment center” staffed in large part by the area’s large Somali-American population, workers have faced violations of the right to fair working conditions, including tight control of access to rest, sick time off, and close surveillance of what Amazon calls “time off task.” Workers, many of whom are recently resettled refugees experiencing a number of factors of marginalization, also describe a lack of training or workplace resources for new workers in the Somali language, as well as discriminatory practices around time off for Muslim holidays. Many such marginalized communities have led the charge in pushing back on violations of their rights in tech-enabled workplaces, and the grassroots efforts to create inclusive and forward thinking movements for tech equity is an critical example of how to move forward.

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101 This right is guaranteed under several international human rights instruments, including Article 17 of the ICCPR, which protects individuals from “arbitrary or unlawful interference” in privacy, the family, home, or correspondence, as well as from “unlawful attacks on [their] honour and reputation.” The United Nations, Amnesty International, and other human rights organizations have repeatedly demonstrated how this core right is increasingly fundamental to a series of interrelated rights for individuals in the digital age, to the extent that the right to privacy is, in fact, “a foundational right,” particularly in an era in which the sharing and tracking of personal data is a growing part of everyday life. The ICCPR also makes clear that the right to privacy applies to everyone, and that difference in its protection on the basis of “race, colour, language, religion, political or other opinion, national or social origin, property, birth or other status” is inconsistent with the principles of non-discrimination and equality (ICCPR, Article 17).


Technology, and the financial and power structures that underpin it, are responsible for a myriad of systemic human rights violations.

As governments, companies and civil society seek to grapple with this reality, and to find ways of enacting policies that counter the harmful effects of the tech sector, an understanding of these interlocking forms of inequality must be placed at the center of these efforts. As the pace of technological development and its deployment in more areas of public life accelerates, it will continue to be the case that intersecting forms of racial, economic, and social inequality must be prioritized as a growing emergency for the human rights community. This briefing has attempted to serve as the first of a series of efforts to document broadly the ways in which technology-enabled inequality violates human rights, and Amnesty International calls upon governments, companies, and communities to contribute to preventing or mitigating these harms.

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