

UDHR ex Machina

how data supports worker rights

Bluenumber . 2024 . Puvan J. Selvanathan



The Universal Declaration of Human Rights (UDHR) could not envisage a future data-driven economy or the impact of technology on our society.

As industrialisation expanded post-war, and trade grew into a mycelium network of global supply chains, the UDHR influenced and shaped international labor rights frameworks. But these broke at the borders of blinkered and brittle nations, between the Global North and South, where Society and Economy had different values, drivers and hopes.

Man is less hungry and lives longer today at the cost of human dignity and global inequity. Goods, services and money can move freely to be safe and thrive – but people cannot.

Technology has enabled the Internet. Connectivity is within reach of billions. Ever more of us are mobile, can enjoy virtual education and even digital freedom. But such basics are still denied to too many of us just because of where, or who, we are.

Technology can and must enable human rights by revisiting the articles of UDHR to inform its purpose, use and value. This paper presents how and why the foundation to realising worker rights is the data they create and must own. It is prescribed by the UDHR.

Data is vital to business for compliance and market access. Because every worker in any supply chain can connect affordably, and create valuable data about their situation, they now have something besides labor to sell. Data from workers makes them visible and literate, it enables agency, it creates property and assets, and only happens with their consent and participation.

The opportunity for the global economy is to welcome billions of new data creators to generate value for themselves, and as a global workers' data cooperative.

Data is a Worker Right

This paper has been authored by Puvan J Selvanathan, Founder and CEO of Bluenumber® (www.bluenumber.org), a non-profit organization, as an original publication for a Peer-Learning Network for Organisations Using Data to Support Workers' Rights (Oct 2023 to June 2024) by the Open Data Institute (https://theodi.org) and supported by Humanity United (https://humanityunited.org).

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Technology must enable rights for all humans in society. Society sometimes forgets that workers are human.

- Articles 22, 23 and 24 in the Universal Declaration of Human Rights (UDHR)¹ speak of the right to work, the rights to just and favorable conditions of work and to form and join trade unions, the right to social security and the right to rest and leisure. UDHR makes labor rights fundamental human rights. These articles have influenced and shaped labor rights frameworks worldwide, international instruments and national laws, such as the International Labour Organization (ILO) conventions and domestic labor laws.
- Technology is obliged to enable rights for the whole of society. That obligation extends to workers, even though society sometimes forgets that workers are human. For technology to support worker rights we must first look to UDHR Articles 4, 5 and 19. These frame Articles 22, 23 and 24. Together with Article 27, these inform the purpose, use and value of technology.
 - Slavery shall be prohibited in all forms (Article 4); no one shall be subjected to degrading treatment (Article 5); everyone has the right to recognition (Article 6); everyone has the right to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers (Article 19); and, everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author (Article 27). These articles are material to how technology and data systems inform policies for workers, regulation and practices that create the conditions they work in.

¹ https://www.un.org/en/about-us/ universal-declaration-of-human-rights



Traceability doesn't tell us what happens to workers at the places where stuff is from.

2 https://classicsofsciencefiction.com /2019/05/22/the-years-best-shortscience-fiction-1948/ In 1948 Eleanor Roosevelt chaperoned UDHR into a world traumatised by war. She could not have envisaged how it might apply to a future data-driven economy. Henry Kuttner wrote **Ex Machina** that same year and his science fiction presaged "The social trend always lags behind the technological one. And while technology tended, in these days, toward simplification, the social pattern was immensely complicated since it was partly an outgrowth of historical precedent and partly a result of the scientific advance of the era. The world, slightly punch-drunk with technology, was trying desperately to walk a straight line. Eventually, the confusion would settle down."²

UDHR and Ex Machina bookend how to consider technology and myriad issues of workers' rights.

Global supply chains are *outgrowths* of historical precedent that commodify labor. The subjugation of human dignity is a result of the scientific advance of the Industrial Era. Technology joins faint dots with feint lines pretending that knowing where something is from somehow equates to things being well over there. We are slightly punch-drunk over traceability. We are coddled by audits and agents: smoke and mirrors purveyed by intermediaries that supposedly empower workers by collecting and packaging their dreams into corporate claims that glitter in the gaslight. We are trying desperately to walk a straight line through a complex social pattern of migrants, living wages and race-to-the-bottom production costs.

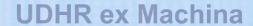


Data is a Worker Right

- → Worker rights must include data rights.
- → Workers must own any data they produce.
- → Workers must be paid for their data.
- → Workers must know and agree to how their data is used.
- → Workers must not be exploited to provide data without compensation.

- Technology does not deliver rights for workers.

 But it does deliver data and information. We must have, respect and handle data meaningfully, with intent and purpose to realise worker rights.
- 7 UDHR guides us:
 - Article 4 Data slavery shall be prohibited.
 - **Article 5** *Lack of data* shall not enable degrading treatment.
 - **Article 6** *Workers' data* has the right to recognition.
 - **Article 19** Workers, digitally and through their data, have the right to offer opinions without interference and to seek, receive and impart information and regardless of frontiers.
 - **Article 27** *Workers* have the right to the moral and material interests resulting from any *data* production *they* author.





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All ILO Forced Labour Indicators³ can be reliably measured by enabling workers to create and provide data from and about their work. For example:

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Deception (ILO 2)

Data on contracts always in the digital custody of the worker to share transparently and examined by relevant parties at any time to determine fairness. Dates, times and locations fed continuously from devices are passive, revealing data streams when flowing and raise red flags if stemmed.

Restriction of Movement (ILO 3)

Managed by simply turning Location 'on' and calling a friend or family – provided the worker has a phone and connectivity.

Physical and Sexual Violence (ILO 5)

Factory supervisors have bodycams 'always-on' to evidence brutality or unfairness in engagements to protect them from worker allegations. Indelible data feeds will deter sexual or physical abuse and protect worker rights.

Retaining identity documents (ILO 7)

Moot if the worker's identity is digital and on a blockchain, registered with all agencies and necessary stakeholders.

Contract performance from legal right to work, promised working conditions, wages and salaries (ILO 8)

All monitored and verified by credentials and receipts into the workers' own mobile wallets.

4 Resistance and resilience against Abuse and Vulnerability & Intimidation and Threats (ILO 1 & 6) Can be systemically built when workers know they are not invisible, when they cannot be disappeared, and their employers and supervisors know that too.



Data Dis-Intermediaries

- → Intermediaries must pay workers for data.
- → Intermediaries must recognize that workers own the data they produce.
- → Intermediaries must inform workers get consent on how their data will be used.
- → Intermediaries must not exploit workers by extracting their data without compensation.
- → Intermediaries must not operate exploitative and extractive data ecosystems.

Workers with means and an incentive to create data begins a virtuous circle of personal recognition, and the greater value that person creates by observing and reporting. This is far beyond the commodity of their menial labour. Even when anonymised and aggregated, each worker's data contribution establishes their digital dignity. Practically, business wanting to make credible claims about their workforce can avoid stakeholder skepticism because every worker can choose to exercise their right to generate and offer data that corroborates fair treatment. Ideally also credentialed by their unions and associations.

The UN Guiding Principles on Business and Human Rights (UNGPs)⁴ say that companies should avoid infringing on the human rights of others and should address adverse impacts with which they are involved.⁵ This includes infringement by Social Auditors or any service provider between companies and workers - such as Mediated Feedback Platforms (MFPs).

17 Social auditors and MFPs are company agents. They should be accountable for transparency, and fulfilment of their client's promises to deliver on workers' expectations of meaningful outcomes. They must not compound the information/power asymmetry between corporations and workers.

Social auditors and MFPs must not be complicit in, enablers, or instruments for abuse of workers' data rights.

- 4 https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf
- 5 Guiding Principle 11



Human Rights Due Diligence (HRDD) is presented in the UNGPs as one part of a boarder ongoing system.

Principle 21 - Communicate

Business should be prepared to communicate externally how they address their human rights impacts.

Principle 18 - Assess Impacts

Business should identify and assess any actual or potential adverse impacts to gauge human rights risks.

Human Rights Due Diligence Principle 17

Principle 20 - Track

Business should track the effectiveness of their responses to verify whether adverse impacts are being addressed.

Principle 19 - Integrate & Act

Business should integrate findings from impact assessments across internal functions and processes, and take appropriate actions to prevent and mitigate adverse human rights impacts.

UN Guiding Principle 17 - Human Rights Due Diligence

"In order to identify, prevent, mitigate and account for how they address their adverse human rights impacts, business enterprises should carry out human rights due diligence. The process should include assessing actual and potential human rights impacts, integrating and acting upon the findings, tracking responses and communicating how impacts are addressed."

6 https://www.bsr.org/en/reports/human-rights-assessments-identifying-risks-informing-strategy

Adapted from the UNGPs and BSR "Human Rights Assessments: Identifying Risks, Informing Strategy" Report⁶





Auditors and workers can be influenced, coerced or bribed to say the right thing.



https://www.hrw.org/report/2022/11/15/ obsessed-audit-tools-missing-goal/why-socialaudits-cant-fix-labor-rights-abuses

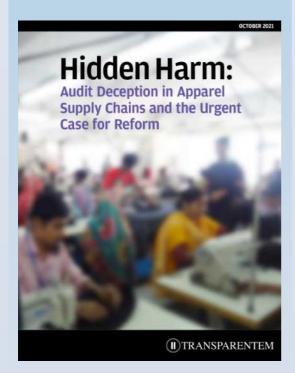
7 Obsessed with Audit Tools, Missing the Goal': Why Social Audits Can't Fix Labor Rights Abuses in Global Supply Chains https://www.hrw.org/news/2022/11/15/social-audits-no-cure-retail-supply-chain-labor-abuse

- ldentifying human rights risks and worker issues requires data from workers. If data is collected it should show how risks are mitigated and that workers are satisfied with remedy.
 - Since the UNGPs were introduced in 2011, and in tandem with the need to appease conscious consumers and greater ESG regulation, a lucrative industry of 'social auditors' has ballooned to provide services for companies. It is the business of social auditors to certify suppliers for a fee. According to Human Rights Watch (HRW), a nongovernmental organization (NGO), certification is "not enough to prevent and remedy labor rights abuses in global supply chains" in its 2022 report "Obsessed with Audit Tools, Missing the Goal": Why Social Audits Can't Fix Labor Rights Abuses in Global Supply Chains.
 - HRW highlights a critical weakness of social audits as being "opaque [and] reports are not public. Lack of transparency means failure to build trust with relevant stakeholders, especially workers, or to enable local unions and workers' rights organisations to monitor progress of corrective actions." The high cost of audits restricts the time an auditor spends on engagement so only selected samples of workers are interviewed onsite. Auditors and workers can be influenced, coerced or bribed to say the right thing.
- Transparentem, a non-profit organization, uncovered evidence that many suppliers deceive auditors to avoid failing an audit and the consequences of expensive remediation, lost orders or blacklisting.





Auditors are blinkered by the standards they audit.



https://transparentem.org/wp-content/ uploads/2021/09/Hidden-Harm-Audit-Deception-in-Apparel-Supply-Chains-and-the-Urgent-Case-for-Reform.pdf

Their report Hidden Harm: Audit

Deception in Apparel Supply Chains reveals

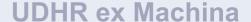
"Common tactics included falsifying documents,
coaching workers to lie, and hiding workers who
appeared to be employed unlawfully".8

Auditors are blinkered by the standards they audit. They perform a duty that does not require them to be conscious of, or necessarily report, harm their clients may perpetrate.

The HRW and Transparentem reports highlight what many in the industry already know: that social auditors are perversely incentivised to produce industry-mandated, cookie-cutter, cash-cow rubber-stamped reports to help their clients. They are not paid to make worker conditions better, but thrive when issues persist so they can be endlessly re-audited for non-compliance. They do not make police reports even if violations are in plain sight; rather, they are gagged by 'professional duty' to their paymasters and compromised by the gravy-train business model.

To plaster over the failings in social audits, 'worker-led' mediated feedback platforms (MFPs) emerged to offer hotlines, grievance channels and technology for workers to be heard, with findings reported on colourfully complex dashboards. MFPs have the same conflicts of interest that make social audits unreliable – they too are paid for by companies and they too create private reports for their clients to action at their own discretion.

8 https://transparentem.org/project/hidden-harm/





Intermediaries implicitly promise workers that providing data will make their situation better.

Who knows who said what?

Who is supposed to remedy what by when?

Who can check if anything is ever done?

Workers invest their data in an MFP expecting change.

What is the ROI?

In many cases the ability of the technology used to advance individual worker data rights is subsumed to a patronizing and analogue premise that only intermediary-vetted data is 'accurate'. MFP operators get paid impressively for gathering, packaging, processing, 'vetting' and selling worker data.

Worse, while workers know auditors are company agents, MFPs are presented as 'friends'. They promise better conditions in exchange for workers' data. But they have no control over that change happening. They will not be accountable if it does not. While MFPs do not pay workers for the feedstock that fuels their own business model, they do enable their clients to extract market premiums by claiming to have 'heard workers'. Workers lose, MFP service providers win and companies win, without any obligation to actually make workers lives better.

enrichment MFPs that collect worker data must clearly show how that data actually delivered better conditions for the workers who provided data. When data is gathered there is always an implicit promise to workers that their inputs will result in change. The worker invests data into the process and has a right to a return on investment (ROI). The ROI must be obvious, apparent and reported. Every investor has a right to transparency, especially workers.





party data⁹ can redress the loss to workers caused by both social audits and MFPs. With a zero-party data approach workers can voluntarily and proactively share their data with companies for mutually beneficial exchange and they receive incentives for doing so.

Zero-party data removes conflicts of interest that compromise social audits and MFPs. Only zero-party data DWV is rightsbased. It does not add data exploitation to the physical exploitation of workers. This table explains how social audits, MFPs and zero-party DWV differ in the context of HRDD:

	HRDD	Social Audits	Mediated Feedback Platform (MFP)	Zero-Party (DWV) Direct Worker Voice
Objective	To identify, prevent, mitigate, and account for potential adverse HR impacts in operations and supply chains.	To systematically evaluate a company's adherence to a voluntary or industry standard.	To enable workers to express their opinions, concerns, and grievances via 3rd parties.	To enable workers to provide zero-party data to the company and any stakeholder, without intermediaries.
Ном	By assessing and addressing human rights risks throughout the entire supply chain, including suppliers, subcontractors, and raw material sources.	By the company paying an auditor to evaluate its own compliance by site inspection, document review, interviews, and worker surveys.	By providing workers with mechanisms including worker committees, anonymous hotlines, and confidential grievance mechanisms.	By incentivising workers to use technology to create and provide data, and fully assert their rights as data creators and owners of that data.
Output	Risk assessment	Private report to company on its adherence to standards regarding labor practices, human rights, health and safety, and environmental sustainability.	Private report to company aggregating anonymous, anecdotal, testimonial feedback from workers to raise concerns, and inform decision-making.	Licensable data from workers for company or any stakeholder to check audit and certification claims, and validate grievances or issues from other channels.
Enables & Drives	Stakeholder engagement, policy development, supplier evaluation, monitoring, and continuous improvement.	Identification of non-compliance issues, developing corrective action plans, and claims of certification according to voluntary standards or codes of conduct.	Processes the company may be willing to consider and adopt to improve working conditions and labor rights.	(i) Digital literacy, agency and data monetization; (ii) income directly to workers for data licensing; (iii) collective action using shared datasets at scale; (iv) empowered worker committees, concerted action and 'always-opendoor' policy.
			9 https://www.ey.com/en_u data-is-the-next-frontier-in	s/consulting/zero-party- n-consumer-strategy





The objective of HRDD is to identify, prevent, mitigate, and account for potential adverse human rights impacts in operations and supply chains. It requires assessing human rights risks throughout the entire supply chain, including suppliers, subcontractors, and raw material sources. The resulting risk assessment enables stakeholder engagement, policy development, supplier evaluation, and monitoring to remedy adverse impacts and continuous improvement.

The objective of social audits is to certify a company to a required or voluntary standard; MFPs provide companies with channels to hear their workers. Both are company-centric and top-down approaches. Zero-party DWV enables key rights prescribed by UDHR for workers to hold opinions without interference and impart data (Article 19) and the right to the material interest of ownership and compensation resulting from data they author and produce (Article 27).

Social audits meet their objective by doing a spot-check on operations, that can be staged, and analysing that snapshot. MFPs operate grievance and other mechanisms that must remain opaque if handling confidential worker testimony. But the lack of transparency fosters distrust when actors – workers, company, authorities or watchdogs - are kept purposely in the dark. Zero-party DWV respects the rights prescribed by UDHR that workers have the right to recognition (Article 6), that the data they create is of value and valid even without vetting, which presumptively degrades the dignity (Article 5) of the creators.

The outputs of social audits and MFPs are private reports to the company on its adherence to standards and feedback from workers, respectively, to inform the company's decision-making. Zero-party DWV, enables workers' rights to own the data they produce (Article 27) and letting them license it publicly to earn income. Further, it enables stakeholder rights to hold opinions about audit and certification claims, worker grievances and other data without interference so they can seek, receive and impart information and ideas (Article 19).

Finally, social audits identify non-compliances and enable certification claims. MFPs guide processes that the company may, or may not, undertake to improve working conditions. Zero-party DWV makes technology work for workers by driving digital literacy, data monetization and digital agency; increasing direct income to workers for data licensing; using shared datasets at scale for collective action; and arming workers with empirical information for concerted action.

- 6 → Every company operating a supply chain needs data about working conditions. Data is the most valuable product of workers today.
 - → Auditors and MFPs appropriate that value from workers and use it to sell certification and endorse their client's claims.
 - → Auditors and MFPs take data from workers but do not pay for it.
 - → This is data slavery and UDHR prohibits slavery in all forms (Article 4).



Workers own the means of (data) production

- A data cooperative will protect its members' data rights.
- A data cooperative will recognize that members own the data they produce.
- A data cooperative will inform members and has consent to use their data.
- A data cooperative will protect members from data exploitation and broker their data for direct compensation and data dividends from knowledge products.
- A data cooperative will operate a fair and equitable data ecosystem.



 Workers should sell their data through a cooperative that value-adds, bundles, packages and markets it.

- Workers can sell data. This commodity is critical for businesses to evidence claims about the commodity of labor that they currently buy. The labour provided by a worker is fungible, but the data that specific workers provide about their specific working conditions is non-fungible. You can replace the worker to do the same job at a place, but how each worker recounts their treatment at that job is unique.
 - In his whitepaper *The Case for Data Cooperatives* Julian Tait, co-founder of Open Data Manchester, a not-for-profit organisation, estimated in 2021 that 10% of the world's population was involved in one of the three million cooperatives in existence. They help farmers, workers and producers act together, and build community value. The Gujarat Cooperative Milk Marketing Federation was formed in 1945, is now jointly owned by 3.3 million dairy producers and makes an annual turnover of US\$5.1 billion.¹⁰
- A global **Workers Data Cooperative** would potentially attract a membership of billions of workers and provide zero-party data to supercharge data markets. Just the analysis component of which is estimated to grow to a value of over US\$650 billion by 2029.¹¹

¹⁰ https:// thedataeconomylab.com/2021/09/06/ the-case-for-data-cooperatives/

¹¹ Size of the big data analytics market worldwide from 2021 to 2029



- 3 goals for a Workers' Data Cooperative:
 - (1) Increase members' direct income by licensing and brokering zero-party data;
 - (2) Develop knowledge products using shared datasets at scale market them to return royalties and dividends to members; and
 - (3) Arm and empower members with empirical information for concerted and collective action.

- A workers' data cooperative would be founded on the earliest blueprint for cooperatives, the Rochdale Principles¹²:
 - Membership is open to any worker able to create and contribute data about their work and working conditions - without geographical, industry or sectoral discrimination.
- All members would equitably produce and contribute data to constitute the capital of their cooperative. They would define and control policies for the cooperative to manage, broker, value and market data assets they create.
- The data cooperative would raise digital literacy of its members, promote data monetization and give them agency in the digital economy to create data of value.
- The data cooperative would respect to local data laws wherever members are present, but operate a global standard for licensing, sharing and using data from workers in international product supply chains.
- Targeting these goals will establish regulation and incentives to realise workers' data rights.

A zero-party data cooperative will sunset the industry of data collectors and corruptors, deny extraction and hoarding, and let every worker benefit from producing data for our Knowledge Economy.

¹² https://en.wikipedia.org/wiki/ Rochdale Principles