

0110
1001
1010

Workers' Data Rights in the Platformized Workplace

A New Frontier for the Labor Agenda

IT for Change
June 2022



Workers' Data Rights in the Platformized Workplace - A New Frontier for the Labor Agenda

Anita Gurumurthy, Nandini Chami, Sreyan Chatterjee and Sakhi Shah

IT for Change

June 2022

Contents

Abstract.....	1
1. Platformization and Labor Rights.....	1
2. Mapping the Field of Workers’ Data Rights	3
2.1. Recognition of algorithmic strategies as the basis of managerial control	4
2.2. Right to explanation for decisions supported by automated systems	6
2.3. Workers’ data rights vis-a-vis public data systems for social security.....	9
2.4. Collective data rights of platform workers	11
3. Conclusion: Towards a Worker Data Rights Framework Adequate to the Platformized Workplace.....	13

Workers' Data Rights in the Platformized Workplace - A New Frontier for the Labor Agenda

Abstract

The context of society- and economy-wide platformization and an expanding spectrum of platform workplaces necessitates a re-think of labor rights at the intersection of data, data-enabled algorithms, and work process reorganization. This working paper takes stock of emerging debates in this frontier domain of workers' data rights, evaluating the efficacy of national level legal-policy frameworks in addressing them, and highlighting the gaps that need to be bridged. It spotlights four critical considerations: recognition of algorithmic control as a key yardstick in the employment relationship, workers' right to explanation in automated systems for workplace decision-making, workers' data rights in social security programs, and collective data rights of workers in their aggregate data commons. The paper concludes with some reflections to restore worker autonomy and labor share of value in relation to the platformized workplace, calling for a new social contract for labor in the 21st century. The paper concludes with some reflections to restore worker autonomy and labor share of value in relation to the platformized workplace, calling for a new social contract for labor in the 21st century.

1. Platformization and Labor Rights

Workers' data rights emerged as a new frontier for labor rights as early as the 1990s, with the advent of the digital workplace characterized by networked surveillance technologies and computerized personnel information systems for workforce monitoring.¹ In fact, in 1996, the International Labour Organization (ILO) adopted a Code of Practice on Workers' Personal Data underscoring the importance of institutional guarantees for workers' rights to informational privacy, access and audit of personal data records held by employers, appeal against assessments based on data monitoring, and prior consultation before the introduction of electronic monitoring and data processing systems.²

¹ International Labour Organization. (1997). *Protection of workers' personal data*. Retrieved May 23, 2022, from https://www.ilo.org/wcmsp5/groups/public/@ed_protect/@protrav/@safework/documents/normativeinstrument/wcms_107797.pdf

² Ibid

Today, we are at a new point of departure, as the advent of the platform model and attendant datafication transmutes the workplace. Platforms – understood as network-data infrastructures³ – usher in a regime of algorithmic optimization, mobilizing networks and data for a new mode of capital accumulation and a novel form of control over the labor process.⁴ The techniques of direction, manipulation, rewards, penalties, evaluation, and disciplining intrinsic to data-driven platform work present an urgency for rebooting rights in relation to laboring in contemporary digital society. The idea of the platformized workplace transcends capitalist digital labor platforms⁵ that mediate the worker-client relationship using data-based insights. New considerations for workers' rights and labor guarantees – decent work, minimum wages, non-discriminatory treatment at the workplace, recognition of employment status, social security and data rights – are not limited to virtual marketplaces for on-demand and online service work. They span a wide range of platform-implicated work arrangements. For instance, industrial internet platforms with their new forms of algorithmic control of the labor process have affected not just industrial workers on the factory floor, but also those in primary sector activities such as agriculture and mining.⁶ Similarly, workers in back-end logistics of e-commerce platforms, such as warehouse workers of Amazon, and in digitalized public health and education sectors are also impacted by platformization, underscoring the breadth and diversity of what we may understand as platform workplaces.

³ IT for Change. (2019, November). *Platform Planet: Development in the Intelligence Economy*. Retrieved from <https://itforchange.net/launching-platform-planet-development-intelligence-economy>

⁴ Kellog, K.C., Valentine, M.A., & Christin, A. (2020, January). *Algorithms at Work: The New Contested Terrain of Control*. *Academy of Management Annals*, 14 (1). <https://journals.aom.org/doi/10.5465/annals.2018.0174>

⁵ Including both web-based platforms, where work is outsourced through an open call to a geographically dispersed crowd (crowd work), and location-based applications (apps) which allocate work to individuals in a specific geographical area. See https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_645934.pdf

⁶ World Economic Forum. (2015, January). *Industrial Internet of Things: Unleashing the Potential of Connected Products and Services*. Retrieved from https://afyonluoglu.org/PublicWebFiles/ict/wef/WEFUSA_IndustrialInternet_Report2015.pdf

Data-based tracking, profiling, decision-making, and management by firms is confined not only to job platforms. Workers' data footprints are also collected from their social media networks to predict varied facets of worker behavior (Will she quit?), workplace attitudes (Will she negotiate for gender pay parity in her workplace or conform?), personal life choices (Will she move cities or start a family?), and leadership traits (Will she take on added responsibilities?). The role of data and algorithms in recruitment, performance appraisal, and everything in between hiring and firing has become the order of the day, in every major company, with evidence suggesting that the adoption of such algorithmic modalities increases in proportion with firm size.⁷

The context of society- and economy-wide platformization and an expanding spectrum of platform workplaces necessitates a re-think of labor rights at the intersection of data, data-enabled algorithms, and work process reorganization. These critical concerns point to 'data rights' as a new frontier of rights that impact the legal and human rights of workers in the employment relationship. In order to map the specific contours of workers' data rights more systematically, this issue paper undertakes a quick scan of prevailing legal-policy frameworks and the extent to which they have been able to address them, and the gaps that need to be bridged.

2. Mapping the Field of Workers' Data Rights

Algorithmic intelligence derived from workers' data generated through platform infrastructures is central to the platform firm's profit maximization and value extraction, today. In this context, workers' data rights intersect with several traditional labor rights, including decent work, equality and non-discrimination at the workplace, and access to social security. Data rights are also integral to realizing the possibilities for worker-led social and solidarity economy alternatives to the mainstream platform firm. Given that value extraction from data capital can be reimagined towards collective benefits and distributive equity, the regime of data rights may also be seen as including a positive rights dimension of fair share in data value for workers.⁸ The discussion below unpacks the emerging contestations and debates on workers' data rights.

⁷ Sanchez-Monedero, J., & Dencik, L. (2019, May). *The datafication of the Workplace*. Retrieved from <https://core.ac.uk/download/pdf/233037288.pdf>

⁸ International Labour Organization. (2021, June). *Platform labour in search of value*. https://www.ilo.org/global/topics/cooperatives/publications/WCMS_809250/lang-en/index.htm

2.1. Recognition of algorithmic strategies as the basis of managerial control

The recognition of the employment relationship is the core element on which all the other constituent elements of the right to decent work are predicated: fair wages, clearly specified terms of work and transparency about work relations, limitation of work hours and compensated time-offs, occupational health and safety guarantees, access to dispute and grievance redress mechanisms, and freedom of association and collective bargaining.⁹

Today, digital labor platforms constantly attempt to evade employer liability by maintaining that workers on their platforms are ‘independent contractors’, even as they assert managerial control through invisible algorithmic strategies.¹⁰ In jurisdictions in the Global South such as Brazil, platforms have also managed to ward off legal challenges from workers about disguised employment relationships (See Box 1).

Box 1. Employer Liability of Digital Labor Platforms in Brazil

In January 2022, Brazil enacted a law that requires food delivery platforms to provide accident insurance and financial assistance to their couriers for Covid-19 infections.¹¹ However, the broader issue of the employment status of platform workers remains unresolved. Currently, there are numerous bills in the Brazilian parliament on this subject – some upholding the employer liability of platforms and others rejecting it.¹² In this context, workers have turned to courts to demand their decent work guarantees from platform companies, arguing that algorithmic control over pricing and work processes constitutes a form of supervisory control that is the basis of establishing an employment relationship in traditional labor law. However, judicial rulings have tended to go against workers in most cases; a situation that is compounded by platform companies’ tactics to push for out-of-court settlements.¹³

⁹ Elaboration of constituent elements of decent work, building on ILO’s conceptualization, as framed in <https://mpp.nls.ac.in/wp-content/uploads/2020/11/OCCASIONAL-PAPER-SERIES-10-final.pdf>

¹⁰ Skelton, S.K. (2021, December). *Gig economy algorithmic management tools ‘unfair and opaque’*. Computer Weekly. <https://www.computerweekly.com/news/252511001/Gig-economy-algorithmic-management-tools-unfair-and-opaque>

¹¹ Labs. (2022, January). *Bolsonaro sanctions law that requires insurance for delivery app couriers; Brazil’s leading app, iFood supports the measure*. <https://labsnews.com/en/news/business/bolsonaro-sanctions-law-insurance-for-app-delivery/>

¹² Fairwork. (2021). *Fairwork Brazil Ratings 2021: Labour Standards in the Platform Economy*. <https://fair.work/wp-content/uploads/sites/131/2022/03/Fairwork-Report-Brazil-2021-EN.pdf>

¹³ Ibid

What the case of Brazil suggests is that new regulation recognizing the deployment of algorithmic management as a new form of supervisory control that testifies to the existence of an employment relationship is necessary to uphold labor guarantees in platformized work environments. The spatial-temporal flexibility afforded by algorithmically-mediated work seemingly provides a sense of autonomy¹⁴ that ends up detracting attention from the myriad ways in which algorithms constrain worker choice – 24x7 dataveillance that blurs the line between work and life,¹⁵ opaque rules structuring the performance of work, unilateral ranking and scoring of quality of work, automated de-platforming processes without the right of appeal, and foreclosure of independent work relationships between workers and clients outside the platform environment. This principle is also upheld in the proposed Directive of the European Parliament and of the Council on improving working conditions in platform work (December 2021), which argues that: “The determination of the existence of an employment relationship shall be guided primarily by the facts relating to the actual performance of work, taking into account the use of algorithms in the organization of platform work, irrespective of how the relationship is classified in any contractual arrangement that may have been agreed between the parties involved. (emphasis ours).” This argument is also in line with the principle of the primacy of facts established in the 2006 Employment Relationship Recommendation (No 198) of the ILO.

The proposed European Union (EU) directive covers only conventional digital labor platforms for on-demand and online work, building on individual initiatives by member states such as France’s El Khomri law that makes platforms responsible for working conditions;¹⁶ and Spain’s Riders’ Law that considers delivery workers/couriers to be employees of platforms with the right to transparency regarding algorithmic workplace management.¹⁷

¹⁴ Wood, A.J., Graham, M., Lehdonvirta, V., & Hjorth, I. (2018, August). *Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy*. *Work, Employment, and Society*, 33 (1). <https://journals.sagepub.com/doi/full/10.1177/0950017018785616>

¹⁵ Bansal, V. (2021, August). *How Healthcare Workers in India Fought a Surveillance Regime and Won*. Pulitzer Center. <https://pulitzercenter.org/stories/how-healthcare-workers-india-fought-surveillance-regime-and-won>

¹⁶ European Agency for Safety and Health at Work. (2022). *France: Lessons from the Legislative Framework on Digital Platform Work*. https://osha.europa.eu/sites/default/files/2022-02/Lessons_from_French_legislative_framework_digital_platform_work.pdf

¹⁷ Aranguiz, A. (2021, March). *Spain’s platform workers win algorithm transparency*. Social Europe. <https://socialeurope.eu/spains-platform-workers-win-algorithm-transparency>

When applied and adapted in other contexts, especially in the Global South, this approach will need to be extended to cover all emergent forms of algorithmically-mediated work environments and not just digital labor platforms; for instance, small farmers selling to e-commerce platforms, subject to algorithmic quality control processes in food production chains.

In July 2021, China's Ministry of Human Resources and Social Security introduced such a policy framework to guarantee the labor security rights and interests of workers in non-traditional forms of employment, in order to build a "standardized, healthy and sustainable development of the platform economy".

The Guiding Opinions on Protecting Labor and Social Security Rights and Interests of Workers Engaged in New Forms of Employment (Guidelines) mandates that all platform work arrangements be governed by a legal contract. Article (3) of the Guidelines states that even in those instances where conditions for employment relationship as laid down in existing labor law are not fully met, as long as the platform enterprise conducts some form of labor management, it shall be required to enter into a written agreement with the worker to reasonably determine the rights and obligations of the enterprise and the worker.¹⁸

2.2. Right to explanation for decisions supported by automated systems

Equality of opportunity and treatment, and elimination of discrimination in respect of employment and occupation have been long acknowledged as a foundational labor guarantee.¹⁹ New algorithmic management technologies for worker monitoring, profiling, and human resource management not only bring risks for worker privacy, but also for individual and group discrimination, owing to the potential for flawed outcomes in automated decision-making.²⁰ Even in the EU, considered the trailblazer in privacy and anti-discrimination guarantees with respect to personal data processing in all settings including the workplace, these concerns have not been fully addressed by prevailing legal-policy frameworks (See Box 2).

¹⁸ Ministry of Human Resources and Social Security, China. (2021, July). *Guiding Opinions on Protecting Labor and Social Security Rights and Interests of Workers Engaged in New Forms of Employment (Guidelines)* http://www.mohrss.gov.cn/xxgk2020/fdzdgknr/zcfg/gfxwj/ldgx/202107/t20210722_419091.html

¹⁹ International Labour Organization. (1958, June). *C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)*. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C111

²⁰ Ebert, I., Wildhaber, I., & Adams-Prassl, J. (2021, May). *Big Data in the workplace: Privacy Due Diligence as a human rights-based approach to employee privacy protection*. *Big Data and Society Journal*. <https://journals.sagepub.com/doi/10.1177/20539517211013051>

Box 2. Protection from Unfair and Discriminatory Treatment in Automated Decision-making in the EU

Article 22(1) of the General Data Protection Regulation (GDPR) grants data subjects the right not to be subject to decision-making based solely on automated processing that has a legal effect on their rights, such as denial of an employment opportunity or unfair disadvantage in work performance. The GDPR WP 29 Guidelines have also made it clear that the idea of automated processing is to be interpreted widely so that data controllers do not evade liability towards data subjects by taking refuge in a tokenistic human review process. From this starting point, it would seem fairly self-evident that the deployment of automated scheduling software and work assignment strategies of platforms fall squarely within the scope of such prohibition.

But seeking protection under Article 22 of the GDPR has not worked out in such a smooth and straightforward manner for platform workers. Research suggests that Uber's automated systems for detecting fraudulent account sharing of driver IDs²¹ by multiple users can malfunction, leading to unjustified de-platforming of workers.²²

In 2020, Worker Info Exchange assisted several groups of Uber drivers from the UK to file cases in the Amsterdam district court against the platform's unresponsiveness to driver data access requests and lack of transparency in algorithmic decision-making, invoking the EU GDPR. In one of the cases, the drivers challenged Uber's de-platforming/termination of employment by arguing that this was based on automated decision-making and was in contravention of Article 22 of the GDPR. In its judgment delivered in March 2021, the court did rule that Uber's decision to terminate employment was insufficiently transparent. It also opined that the platform should provide access to personal data used for making the decision to deactivate driver accounts to the concerned individuals in order for them to verify the correctness and lawfulness of data processing. However, the court accepted the platform company's representation of its internal procedures as including meaningful human intervention, ruling that there was no violation of Article 22.

²¹ In specific, its Real Time Identification System that uses facial recognition and geo-location checks to verify the identity of driver partners on duty.

²² WorkerInfoExchange. (2021, December). *Managed by Bots: Data-Driven Exploitation in the Gig Economy*. Retrieved from <https://www.workerinfoexchange.org/wie-report-managed-by-bots>

While offering workers a partial victory, the case demonstrates the limits of Article 22 in guaranteeing an effective right to explanation for platform workers, as demanded by worker organizations such as UNI Global Union.²³ The Article does guarantee that data subjects will not be subject solely to automated systems in workplace decision-making without concomitant ‘human-in-the-loop’ processes. However, it does not specify the nuts and bolts of how such processes must be operationalized from a workers’ ‘right to know’ perspective – such as worker consultations at the point of inception/adoption of the algorithm, written explanation to workers about how decisions have been arrived at, proactive sharing with workers of appeal and review processes, audit by worker representatives, and so on.

The proposed Directive of the European Parliament and of the Council on improving working conditions in platform work (December 2021) attempts to address the existing regulatory deficit in the governance of algorithmic decision-making at the workplace (discussed in Box 2 above). It provides for a robust right to explanation for persons performing platform work from the concerned digital platform “for a decision, the lack of a decision, or a set of decisions taken or supported by automated systems that significantly affect their working conditions.”²⁴ While welcoming this piece of legislation, digital labor researchers in the EU have highlighted that there is a need to better define what constitutes significant impact on working conditions, to ensure that workers’ “access to work assignments, their earnings, occupational safety and health, their working time, their promotion and their contractual status, including the restriction, suspension or termination of their account” is covered.²⁵

²³ The Future World of Work. *10 Principles for Workers' Data Rights*. Retrieved from <http://www.thefutureworldofwork.org/opinions/10-principles-for-workers-data-rights/>

²⁴ European Commission. (2021). *Proposal for a Directive of the European parliament and of the Council on Improving Working Conditions in Platform Work*. <https://ec.europa.eu/social/BlobServlet?docId=24992&langId=en>

²⁵ Abraha, H., Prassl, J., & Kelly-Lyth, A. (2022, May). *Finetuning the EU's Platform Work Directive*. Retrieved from <https://www.law.ox.ac.uk/business-law-blog/blog/2022/05/finetuning-eus-platform-work-directive?s=09>

2.3. Workers' data rights vis-a-vis public data systems for social security

In the proliferating non-standard work arrangements of the platform economy, robust data systems for the collection, aggregation, and processing of worker data are indispensable to the design and enforcement of both contributory and tax-financed social security schemes by state agencies.²⁶ Information about work hours, earnings, specifics of employment arrangements etc., become important to ensure effective coverage of social security schemes and prevent fraudulent welfare claims.

Individual member states of the EU have incentivized/mandated data sharing about worker earnings by platform companies. Belgium provides tax benefits to platform companies that share information about worker earnings with tax authorities, who also forward the datasets to the institutions responsible for social security. Platforms in France have to mandatorily disclose detailed information on the income of their platform workers (above certain thresholds) to the revenue authorities annually, who then forward this to agencies responsible for the collection of social security contributions. Further, there is a pan-EU proposal to set up a single digital window for income data from platform work, using the collective political clout of the EU as a regional bloc to exert pressure on non-domiciled, foreign platform companies for mandatory compliance.²⁷

Outside the EU, Uruguay has an internationally acclaimed digitalized social security for platform workers that has been operational since 2017. Drivers on transport platforms in Uruguay have to register themselves on a public app on their phones through their social security institutions, and tax authorities receive information pertinent to social security coverage and tax payments. Platform companies are obligated to verify the data provided by their workers and risk even losing their license to operate in the Uruguayan market if they fail to do a thorough check.²⁸

²⁶ Popov, G. (2021). *China and International Labor Standards: New Guidelines Extend Labor Protections to Platform Workers*. https://www.nyujilp.org/china-and-international-labor-standards-new-guidelines-extend-labor-protections-to-platform-workers/#_ftn13

²⁷ Lehdonvirta, V., & Ogembo, D. (2019). *A Digital Single Window for Income Data from Platform Work*. Retrieved from Luxembourg: Publications Office of the European Union. <https://ec.europa.eu/social/BlobServlet?docId=22636&langId=fi>

²⁸ Freudenberg, C., & Schulz-Weidner, W. (2020). *Social Protection of Workers in the Platform Economy: A Cross-Country Comparison of Good Practice*. Retrieved from Bundesministerium für Arbeit und Soziales. <https://eu2020-reader.bmas.de/en/new-work-human-centric-work/social-protection-of-workers-in-the-platform-economy-a-cross-country-comparison-of-good-practice/>

A range of rights-based considerations for workers is implicated in the creation of such databases by public agencies: a fine balance between privacy and transparency of welfare claims; rights of access, audit, verification, erasure, and correction in relation to datasets; personal data protection guarantees of prior and informed consent in data collection; and safeguards against profiling in the processing of such datasets. Additionally, an enabling institutional environment for creation, consolidation, and effective use of worker datasets in social security programs also requires mandatory data sharing by platform companies about their workforce. Finally, data governance frameworks to protect individual and collective data rights in relation to the appropriate and legitimate use of publicly held worker datasets are also non-negotiable. This is of particular concern in contexts in the Global South, which may not have robust data governance underpinning welfare data architectures, as the case of India demonstrates (See Box 3).

Box 3. Risks of Data Governance Deficits in Social Security Data Architectures: The Case of e-Shram in India

In August 2021, the Government of India launched e-Shram, a database portal for the enrollment of unorganized workers across the country into occupation-specific social security schemes straddling traditional and platformized gig work arrangements. The Code on Social Security, 2020, empowers the Union government to enlist the participation of platform aggregators in the implementation of social security schemes for platform workers. Technically, this means that the government could obligate aggregators to mandatorily share worker data in specified formats and register their workforce on e-Shram.

Currently, over 380 million workers are already registered on the portal, even though there is no clarity on the specific social security schemes that are going to be implemented through the e-Shram mechanism.²⁹ This opens up the risks of individual and collective harms for the worker. To begin with, enrolled workers do not have any rights to access and audit their data, nor the right to appeal against any exclusion stemming from database errors.

Even more worryingly, time limitation and purpose limitation safeguards are not applicable to the database and there is no clarity on the data retention policy. The consent form deployed at the point of enrollment uses a blanket clause on re-use of data for “strengthening digital platforms to ensure good governance and prevent dissipation of social welfare benefits”.³⁰ This carries the real risk of monetization of worker data to ostensibly develop business models in partnership with private firms for targeting loans and micro-insurance.

2.4. Collective data rights of platform workers

The coercive power of platforms over workers comes from the ceaseless collection and accumulation of data footprints generated in the course of the platformized work process. Fair value creation and distribution in the platform economy, therefore, hinges on reclaiming the aggregate data of workers and redeploying the platform model towards the collective benefits of workers at large.³¹

Within the trade union movement, a number of proposals have emerged with respect to collective data rights of workers. One set of proposals locates the collective data rights framework in the tradition of collective bargaining mechanisms, calling for a representative governance model of data and algorithmic systems at the workplace, with appropriate trade union representation.³² In 2020, UNI Global Union launched a campaign calling for collective bargaining agreements to cover ‘algorithmic use agreements’ that would include “the right to know what tools are being used, knowledge of what data is being collected and why, and the right to access data collected [...] through these tools”.³³ ‘WeClock’ is a mechanism developed by The Why Not Lab that allows workers from a wide range of platform and non-platform settings to quantify their workday by tracking tasks and activities without breaching privacy norms.³⁴ The intent is to allow workers and their organizations to build and leverage data intelligence for effective negotiation with employers in platformized workplaces about wages, working time, and decent work.

²⁹ Adhikari, S. & Dutta, D. (2022, May). *More Confusion, Less Benefits Mar E-Shram Registration Process*. The Wire. <https://thewire.in/labour/more-confusion-less-benefits-mar-e-shram-registration-process>

³⁰ IT for Change & Centre for Internet and Society. (2021, December). *A Civil Society Agenda for eShram*. Retrieved from <https://itforchange.net/sites/default/files/add/CIS-ITfC-A-civil-society-agenda-for-e-shram-Dec-21.pdf>

³¹ International Labour Organization. (2021). *World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work*. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_771749.pdf

³² Colclough, C. (2020, September). *Workers’ rights: negotiating and co-governing digital systems at work*. Social Europe. Retrieved from <https://socialeurope.eu/workers-rights-negotiating-and-co-governing-digital-systems-at-work>

³³ UniGlobal. (2020). *UNI Global Union Launches New Push for Collective Bargaining around Algorithmic Management Tools*. Retrieved from <https://uniglobalunion.org/news/uni-global-union-launches-new-push-for-collective-bargaining-around-algorithmic-management-tools/>

³⁴ Colclough, C. (2020, April). *WeClock - the app for workers*. The Why Not Lab. Retrieved from <https://www.thewhynotlab.com/post/weclock>

Data extractivist practices of capitalist platforms hollow out the generative capacities of the local economy. For instance, a taxi driver's intricate knowledge of the city is devalued in a market restructured by ride-hailing apps, as a farmer's indigenous knowledge of cropping practices, in precision agriculture platforms.³⁵ A commons-based collective governance of data resources is hence seen by those from the cooperatives sector to restore workers' claims over their knowledge and enable sustainability of local economies.

A number of different ideas have been mooted in this regard. A 2019 proposal along the lines of the credit unions of the United States suggests that non-profit organizations can act as fiduciaries for the management of members' data and represent their interests in data sharing.³⁶ A multi-sided cooperative organization in the ride-hailing sector can potentially manage aggregate data of drivers and consumers, enhancing their power to bargain for better terms of service on the platform. Other proposals have focused on equipping workers to monetize pooled data resources. For instance, Driver's Seat, a cooperative of ride-hailing app drivers in the United States, collects and sells mobility data of members to city agencies, so that they can make better transportation planning decisions. Driver-owners receive a share of revenue generated from data sales. In addition, member drivers can track and share their driving data by using the Driver's Seat's mobile application to receive free insights on their driving habits to help them optimize their operations and increase earnings.³⁷

A platform commons model is another variant that seeks to build a worker-owned platform architecture geared to ethically and equitably distribute value generated on the platform. Box 4 presents some insights from this approach based on a 'data collectivism' model.

³⁵ Mann, L. & Lazolinno, I. (2019). *See, Nudge, Control and Profit: Digital Platforms as Privatized Epistemic Infrastructures*. IT for Change. Retrieved from https://itforchange.net/platformpolitics/wp-content/uploads/2019/03/Digital-Platforms-as-Privatized-Epistemic-Infrastructures-_5thMarch.pdf

³⁶ Pentland, A., Hardjono, T., Penn, J., Colclough, C. Ducharme, B., Mandel, L. (2019). *Data Cooperatives: Digital Empowerment of Citizens and Workers*. MIT Connection Science. Retrieved from <https://ide.mit.edu/sites/default/files/publications/Data-Cooperatives-final.pdf>

³⁷ Adjovu, C. (2019, October). *My Data! My Rules! The Rise Of A New Data Governance Landscape In The Midst Of Heightened Data Privacy Concerns*. Retrieved from <https://medium.com/cryptolinks/my-data-my-rules-1e52828b9377>

Box 4. The Power of Data Collectivism as an Organizing Logic for Worker-owned Platform Enterprises

Creating alternative business models for workers in the platform economy based on a cooperativist ethos-is not simply about finding an alternative business structure (incorporation as a cooperative), funding strategy (community shares instead of venture capital), or method of surplus distribution (allocation of dividends based on member contribution rather than amount of share capital held). Choices of techno-design architecture are an additional dimension for cooperative platform enterprises. The data ethics informing the intelligence frameworks of social and solidarity economy businesses have to be radically different, ensuring fair accumulation and equitable distribution of the value generated. Neither data minimalism – a negation of data-based intelligence for enterprise optimization, nor data maximalism – reproducing extractivist data mining strategies of mainstream platforms, can succeed in this regard. Rather, data collectivism – ethical data collection, processing, and intelligence generation through appropriate stewardship for regenerative appropriation of data, can grow sustainable platform enterprises that truly empower workers.

The sustainability of platform cooperatives depends not only on appropriate data stewardship models to steer workers' collective data rights. Cooperative platform enterprises also need policy and regulatory frameworks that check the monopolistic tendencies of the platform economy, and provide access to public data infrastructures that add value to their own enterprise.³⁸

3. Conclusion: Towards a Worker Data Rights Framework Adequate to the Platformized Workplace

The discussion in this paper reveals the imperative for a new generation of labor rights in relation to workers' data that is commensurate with platformized workplaces. A steady enclosure of worker data across a range of workplaces from digital labor platforms to smartified shop floors or schools, and traditional firms deploying platform solutions for managerial control reflects a new reality of algorithmic optimization of worker-capital relations.

³⁸ International Labour Organization. (2021, June). *Platform labour in Search of Value*. https://www.ilo.org/global/topics/cooperatives/publications/WCMS_809250/lang-en/index.htm

What is clear is that contemporary platformization processes make it necessary for conceptions of workers' data rights to move beyond freedom from workplace dataveillance (enshrined in the ILO's Code of Practice on Workers' Personal Data, 1996) to encompass an entire spectrum of rights in relation to data and data-enabled algorithms. While privacy and personal data protection rights are core to this schema, the compass needs to move further. Algorithmic control undermines decent work guarantees, even as illegitimate deployment of automated data processing systems in workplace decision-making undercuts workers' autonomy. Further, the platformization of work reflects an intensification of labor exploitation, with the enclosure of social knowledge derived from worker data footprints by capitalist firms. This, in effect, comprises the usurpation of labor share of value for maximizing profit in platformized work arrangements.³⁹

Thus, the deployment of new data and algorithmic technologies at the workplace requires an updation of traditional labor standards. Scholarship has highlighted that without conceptualizing gig work as data-producing work/data work, and addressing the capture and valorization of data by capitalist firms in the platform economy, the capital-labor inequality in the current conjuncture cannot be overturned. This may require a new right to self-determination that workers can use to demand a collective stake in business revenue as fair return for efficiencies gained out of the harnessing of their data for algorithmic optimization.⁴⁰ The rise of the digital welfare state has meant that the personal and aggregate data of workers held by public agencies, often times with employer participation, becomes a central concern for their rights – both protection from data-related harms and rightful benefits as citizens.

Clearly, an effective worker data rights approach needs to straddle individual and collective rights in worker data, and this needs to be elaborated across the data life cycle in granular and contextual ways. One way to think about this is to differentiate these claims for personal data submitted by workers themselves at the point of joining employment; work transactions data collected by employers through algorithmic work management systems; and data-enabled intelligence/inferences generated by employers through processing personal and transactions data of workers.

³⁹ Doorn, N.V. (2020, June). *Platform Capitalism's Hidden Abode: Producing Data Assets in the Gig Economy*. Antipode 52(5). <https://onlinelibrary.wiley.com/doi/10.1111/anti.12641>

⁴⁰ International Labour Organization. (2021). *World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work*. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_771749.pdf

Some indicative considerations for workers' individual and collective data rights across the different types of data generated in the data life cycle are represented in the infographic below, and underscore the analysis in this paper that such claims straddle a wide ranging spectrum, including but not limited to privacy and personal data protection.

Type of Data	Workers' Individual Rights (Indicative Considerations)	Workers' Collective Rights (Indicative Considerations)
Personal data submitted by worker at the time of joining employment.	Rights to access, correction, and erasure of personal data	Rights to collective representation and participation in determining the terms and limits of personal data collection
Transactions data collected by employers from work interactions in the platformized workplace.	-Right to data portability -Right to audit transactions data records and grievance redress in case of dispute	Right to explanation about the deployment of work transactions data mining system as part of collective bargaining agreement
Data-enabled intelligence/insights generated from processing of workers' personal and transactions data.	-Right against individual profiling -Right not to be subject to fully automated decision-making	-Right against group profiling -Right to fair share in value generated through algorithmic optimization of aggregate data

In conclusion, it is important to note that the effectiveness of a workers' data rights regime is predicated on a whole-of-economy approach. A legal instrument on workers' data rights applicable to a wide spectrum of platform workplaces will need to be scaffolded by sector-specific regulation for workers from different economic sectors, as well as laws to protect and promote public interest considerations in worker databases co-created by states and employers. Further, no data rights regime can benefit workers unless the capitalist juggernaut of monopolistic and unfair platformization is addressed through structural changes to the platform economy. This implies the need for an institutional ecosystem that can make access to data rights real and meaningful – through comprehensive personal and non-personal data governance frameworks bridging labor rights and economic justice, along with

economy-wide algorithmic accountability legislation.

Last but not the least, alternatives to platform capitalism through platform cooperativism cannot take off and sustain unless the platform economy is coded for fairness and equity. The role of regulation to curb the monopolistic power of transnational platform companies, public investment in digital industrialization; and policy encouragement of worker-led platform enterprise models grounded in data collectivism, are hence a necessary complement to any data rights regime for workers' rights in the 21st century.

