Engineered precarities: Algorithmic management in data work and content moderation
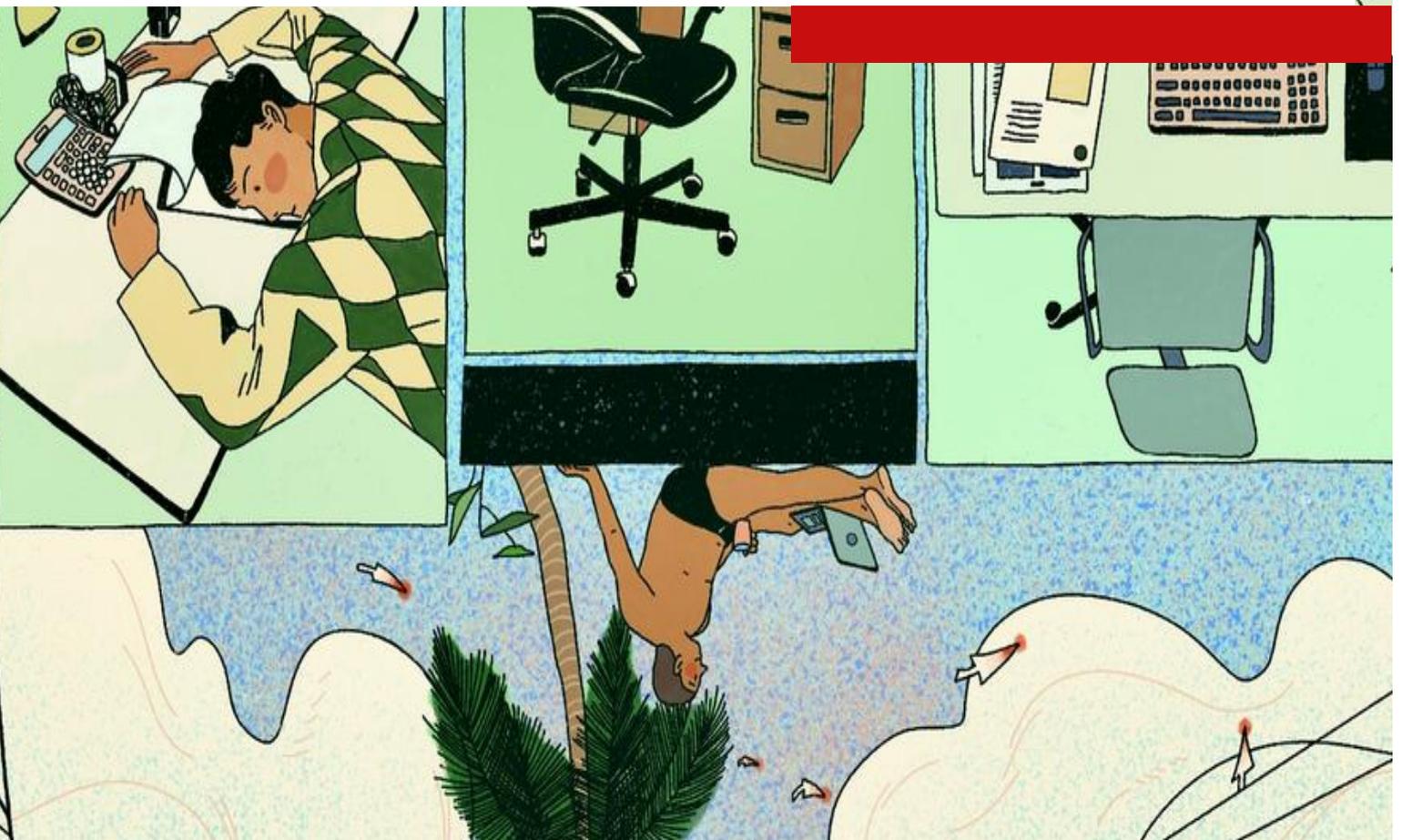
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Preface to the Series

A growing, global and largely hidden workforce rids our social media of toxic content, prepares data for AI development, and fulfils many other roles to keep our digital technologies going. These workers, called "data workers" and "content moderators," work along complex, transnational supply chains that span the globe. Despite their important contributions to technological development, they remain unrecognised and often operate under precarious working conditions. Workers tend to suffer from low pay and unpaid work to mental trauma from exposure to disturbing content.

As part of the growing discussion on the occupational hazards of data work and content moderation, Aapti Institute, in partnership with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, embarked on the "Exploring AI Labour in the Global South" project. We organised a series of stakeholder consultations, where people involved in labour, advocacy, research, journalism, and policy came together to discuss the problems of data work and content moderation. The primary objective of these consultations was to anchor deliberations in lived experiences and region-specific contexts, thereby moving beyond abstract or generalized discourse. Additionally, we also spoke to several practitioners involved in labour organising, research efforts, policy work, and media investigations. These conversations were centred around Sub-Saharan Africa, Southeast Asia, and South Asia – regions that are crucial to AI development and yet remain absent from policy discussion about labour welfare.

This three-part report series synthesises the findings from stakeholder consultations and secondary research, offering a distinct perspective by anchoring its analysis in the realities of the Global South. The first report explores the spectrum of precarious working conditions faced by content moderators and data workers. The second investigates the role of algorithmic management in shaping workers lived experiences. The third and final report examines outsourcing and the transnational challenges of ensuring fair labour conditions.

Taken together, the reports are best read as a series as they address interconnected issues of global outsourcing practices, algorithmic oversight mechanisms, and on-the-ground working conditions while identifying points of intervention for state actors as well as bilateral and multilateral institutions. They also outline policy options and highlight ongoing initiatives that seek to improve working conditions. Collectively, the series provides a critical foundation for understanding the labour challenges associated with data work and content moderation in the Global South, serving as an evidence-based framework for future policy discussions and coordinated action.

Executive Summary

This report discusses the involvement and problems of algorithmic management in data work[1] and content moderation,[2] combining insights from over thirty-five expert interviews, three multistakeholder dialogues, and secondary research. In the context of this report, algorithmic management includes the tools, practices, and approaches that create digital environments where workers operate while being measured and observed. While such digital outsourcing may benefit businesses, through outcomes like lower labour costs, algorithmic management can entail harsh discipline, intrusive monitoring, worker uncertainty, and strain for labour. These systems can differ in their subcomponents, and can affect aspects like pay, workloads, monitoring, and worker evaluation.

The stakeholder consultations and the project's research have introduced numerous problems and considerations. During the consultations, participants talked about labour being subjected to intrusive monitoring and the verification of worker activity through means like live video,[3] low tolerance for workers' mistakes,[4] and operating amidst the pressures of meeting performance requirements like those of volume and accuracy.[5] Digital workplaces can also vary in some ways, such as how some people receive work as projects (Muldoon et al., 2023), while others have to process queues of tasks (Equidem, 2025). The substantial influence of algorithmic management on the working conditions of data workers and content moderators further intensifies their precarity, underscoring the need for targeted scrutiny, regulatory oversight, and the establishment of clear standards.

There exist some measures for areas like data protection and platform work, in territories like the USA, China, the European Union, and India. However, interventions on algorithmic management are a relatively nascent and developing topic in the Global South. Undertakings like the EU Platform Work Directive, as well as recommendations and principles from labour, research, and civil society offer guidance and ideas on responding to algorithmic management for sectors like data work and content moderation. The report concludes with a set of "ways forward" on how various stakeholders need to act or change.

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[1] For a definition, consider Muldoon et al. (2024)
[2] For a definition, consider Roberts (2022)
[3] Stakeholder consultation 1
[4] Stakeholder consultation 2
[5] Stakeholder consultation 3

Acknowledgments

Please see Appendix A for the list of experts consulted.

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1 | Introduction

ImageNet is an important moment in the longer history of artificial intelligence (AI) (Christian, 2020). It was a large dataset of labelled pictures that helped further the field of computer vision. One of the things that made this turning point possible was researchers' use of an online platform to "crowdsource" data. Instead of recruiting college pupils, they distributed "tasks" to people online, which led them to build a much larger dataset, with a greater number of data contributors, in a shorter time span, and for a lower cost (Gershgorn, 2022). ImageNet may have been a breakthrough for the field of AI, but that instance of crowdsourcing was the beginning of tech companies' heavy reliance on precarious human labour[6] to develop and sustain their products and services.

ImageNet's approach showcases the possibility of digitally coordinating labour to support sectors like AI. Internet connectivity and digital platforms make it possible for companies to transmit work (tasks for humans to complete) and specifications (instructions and requirements on completing tasks) across several locations and at scale. For example, US-based AI firms can source training data for robots from vendors who engage people in India (Christopher, 2025). Similarly, outsourcing vendors run operations across Africa to chiefly service tech firms in the West (Wangari & Vaidyanathan, 2025). The use of platforms, software, and digital tools, which are some of the key components of "algorithmic management," allow AI supply chains to access vast numbers of working people across the world. While algorithmic management may create new opportunities for arranging AI supply chains and meeting labour requirements, such approaches can also create problems for workers.

This second report in a series on data work and content moderation discusses algorithmic management systems and practices that govern labour, outlining the use of data collection and digital tools and environments. Beyond discussing the functioning of algorithmic management, this report describes the effects such systems can have on data workers and content moderators. This exploration is followed by a limited review of initiatives and measures that could reduce algorithm-related strain and precarity. Finally, the report concludes with key considerations on future work and advocacy. To draw conclusions and outline policy and guidance, we also explore some research and discussions from other labour contexts, like location-based platform work.

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[6] For a discussion on data workers and content moderators' working conditions, see the report, *Invisible Workers, Visible Harms*, also in this series.

2 | The components of algorithmic management

Algorithmic management is an important part of how tech firms and vendors use internet connectivity and software to transmit work, specifications, and even *control and discipline in the production process.* It has been defined as "the potential automation of the full range of traditional employer functions, from hiring workers and managing the day-to-day operations of the enterprise through to the termination of the employment relationship" (Adams-Prassl et al., 2023, p. 125). One example to understand such replacement could be the emergence of "dynamic pricing" in lieu of the fare meters used by cabs and auto rickshaws. Another would be how digital labour platforms' worker-side applications "assign" and "offer" trips and gigs.

In contexts like that of data work, content moderation, or somewhat similar roles in location-based platform work, algorithmic management involves the data collection and monitoring, as well as the digital tools and platforms, that workers are subjected to as part of their roles and their work environment. For example, work can sometimes be sent to labour via queues, where they have to finish and submit one task before moving on to another. As they work, people may be measured in terms of metrics like their task-clearing speed or the accuracy of their output, and these measurements can trigger responses like warnings or removal.

It is important to note that algorithmic management does not exclusively mean that a completely automated piece of technology watches, disciplines, and directs human labour. Rather, algorithmic management components take up different roles of an otherwise larger management cadre. Webcams and device-monitoring tools take the place of a human being watching over the worker. Instead of reporting to a physical space, one may now be required to log in to some kind of platform. Instead of having a supervisor or a manager observe one's work and provide feedback, a worker may now have to keep an eye on their metrics and ensure that they clear the benchmarks outlined. There would be aspects of work where more automated decisions are taken, and others where people use digital tools to monitor workers, evaluate their labour, and make decisions about them.

Regardless of how automated an algorithmic management set-up may appear to be, one's understanding of these systems should not end at the use of digital tools or the effects they have on labour. The use of data is closely connected to algorithmic management (Rainone, 2025). Businesses' technologies surveil workers and collect data from them over the course of the worker-firm relationship. This data feeds a number of evaluation and decision-making functions. For example, during the first stakeholder consultation on data work and content moderation, there was a mention of how

companies used workers' devices' video feeds to verify the identity of the person completing tasks.[7] Data collection thus plugs into algorithmic management's supervisory and managerial roles. To fully understand workers' conditions and the algorithmic regimes they face, it is vital to examine companies' data collection practices and the inferences and decisions they can produce.

Table 1, provided below, lists some of the information gathering involved in data work and content moderation. It combines secondary research with discussions from the project's interviews and consultations to outline some of the data collection imposed on workers.

Form of data collection	Description
Identification[8]	Workers may have to submit personal identification as part of on-boarding. Companies engage in "know your customer" (KYC) processes, which can involve phone numbers, addresses, and personal ID numbers.[9]
Location and account data	Companies operating multinational can differentiate workers' accounts based on their location. People's locations can affect the kind of pay companies offer to their work accounts.[10]
Resilience and mental health[11]	Workers may be tested for resilience, and screened for mental health issues.
Tasks	Workers can submit data that they treat or produce to specifications, or "decisions" on how to treat user-generated content.
Worker presence[12]	Workers' bodies and movements may be tracked, through means like device webcams. Attendance-tracking may also be involved.[13] Companies can try to observe things like break time, time spent "idle", and when people get back to working.[14]
Device use[15]	Companies can monitor workers' use of devices, in terms of mouse activity or keystrokes.

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[7] Stakeholder consultation 1
[8] Expert interview, anonymized
[9] Bird and Schepers (2025)
[10] Bird and Schepers (2025)
[11] Expert interview, anonymized
[12] Stakeholder consultation 1
[13] Muldoon et al. (2023)
[14] Stakeholder consultation 3
[15] Expert interview, anonymized

Form of data collection	Description
Performance[16]	Measure workers' productivity through metrics like speed and accuracy in task completion, and the volume of material processed.
Eligibility[17]	Indicators and records of workers having specific competencies. These can be based on things like assessments and qualifying tasks that workers complete.

Table 1. Some forms of data collection

Data goes on to drive algorithmic management in the form of various tools and processes. Labour involved in data work and content moderation often fulfil their roles through a variety of digital tools, overseen by mechanisms that measure productivity. Algorithmic management allows companies to engage and manage labour at scale and across borders.

Algorithmic management can vary in its components, scope, and processes. A platform can enable clients to "post" tasks that people can attempt, and it can offer clients "end-to-end services" that take care of more of the operational aspects, like validating the work done (Schmidt, 2022, p. 142). Algorithmic management does not have to involve a fixed set of proprietary systems through watching and controlling labour. The tools involved can change, and need not be exclusive to specific parties. An expert interview on data work discussed how the tools workers handled could change as per clients' specifications. In another interview, an expert referred to a data solutions provider they had studied using a software on workers that was available on the market. Data work has also been found being organised via online forms, fintech applications, and group chats on a messaging platform, while using practices like accuracy requirements and daily production targets (Dosunmu and Waithira, 2025). Thus, the algorithmic management setups in data work and content moderation can involve shifting sets of tools and practices, and do not have to be centred around some kind of central, automated decision-making system.

While the global and crowdsourced nature of AI labour might make it seem like automated bosses are running things, it is also possible that humans remain important to a service provider's operations. One of the experts interviewed recounted a firm where people were responsible for assigning tasks, and workers picked projects to do. In some setups, workers may report to human leaders and operate alongside coworkers with whom they may have to meet "team targets" (Equidem, 2025, p. 28). Thus, data work and

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[16] Chatterjee at al. (2025)
[17] Vij (2023)

content moderation operations involve algorithmic management set-ups that vary across companies, can have a substantial human component, and can feature a changing cast of tools for workers to handle. The next section describes the ways algorithmic management is extended to workers, and the problems associated with such measures.

3 | The labour effects of algorithmic management

While algorithmic management might save money and time for the clients seeking data work and content moderation, it can create problems for data workers and content moderators. Algorithmic management replaces human roles and creates opaque, demanding, and unpredictable environments for data workers and content moderators.

The lack of and reduction in human relations makes it difficult to discuss workers' issues, flag problematic practices, and attempt negotiations. For example, one of the expert interviewees talks about how, in one firm, a worker was able to talk to a supervisor about reduced workloads when they were under strain. Without human involvement, workers may be left without ways to seek changes to the work environment, or appeal decisions and processes that can adversely affect them, such as being removed from their roles or accounts. Workers can also end up having to adhere to stringent requirements of accuracy and speed, and opaque management that creates pressure and complicates their earnings and role security. Algorithmic management can create harsh working conditions, steep productivity demands, and uncertainty for data workers and content moderators. The development and enforcement of algorithm-related interventions and standards is essential to pursuing fairness, safety, and stability in these sectors' work environments.

This section offers a review of algorithmic management's components in the context of data work and content moderation, alongside a discussion of the major problems associated with these systems. However, it is important to note that algorithmic management is not the sole source of poor labour conditions in these sectors. These systems work with other practices and components to form the overall production and management environment. For example, content moderators have to adhere to companies' rulebooks that are shared with them (Chatterjee et al., 2025). These instructions affect how they work and how difficult and demanding their roles can get. There are human-driven and non-algorithmic features and practices that shape labour issues that must be considered and studied as well. Thus, dissections of algorithmic management need to integrate into the wider discussions on working conditions and labour control in data work and content moderation.

Table 2, provided below, lists some of the elements of algorithmic management in data work and content moderation, and discusses some of the issues that can arise. These components have been identified as a result of secondary sources and this project's stakeholder consultations and expert interviews.

Algorithmic management component	Description	Possible issues
Regional presences	Through digital means instead of physical presence and set-up, companies can enter countries and offer paid work. They can also digitally exit countries.	Companies can abruptly "block"[18] or move out of countries, leaving workers without paid work.[19]
Queues	Somewhat similar to assembly lines, workers are supplied with a stream of tasks to complete.	Prolonged exposure to queues of distributing materials can adversely affect workers' mental health.[20]
Eligibility work	Assessments[21] and qualifying tasks that workers are required to complete as part of processes like on-boarding or accessing work.	Workers may have to clear qualification processes to access low-paid work, and provide unpaid labour.[22]
Project assignment	Unlike queues that continually offer work, some setups involve assigning projects to workers. Projects give workers access to paid work.	Workers may be left "benched," waiting for paid work for long periods.[23]
Task postings	Setups where clients can post tasks and work, and people can pick them up.	Workers may have trouble locating enough tasks that allow them to earn substantially.[24]
Metrics	Various benchmarks that workers are expected to meet. Should they not meet these metrics, it can trigger action from the company. Evaluations can even be team-based, with performance-related disciplinary measures applied to	Can create performance-related pressure[26] and lead to overwork.[27] Metrics can affect potential positive gains for workers, like

[18] Hao (2025)

[19] Okinyi (2024)

[20] UNI Global Union (2025a); Equidem (2025)

[21] Henshall (2024)

[22] Vij (2023)

[23] Muldoon et al (2023)

[24] Gray and Suri (2019)

[26] Chatterjee et al (2025)

[27] Equidem (2025)

Algorithmic management component	Description	Possible issues
	the team.[25]	bonus pay.[28]
Production targets	Periodic quotas for the amount of work people need to complete.	Steep quotas can pressurize and penalize workers.[29] These targets can extract unpaid labour from people who can't meet them.[30]
Device controls	The different ways companies can access the devices workers operate on, accessing features like the webcam, the mouse, and keyboard.	Companies can access workers' devices,[31] and may enter worker's private lives and spaces. They could watch workers in their homes.[32] Companies observe and evaluate people based on tracking in forms like workers' website and browser use[33] and mouse activity.[34]
Pay determination	Clients and the companies directly managing workers can set pay for tasks and projects.	Workers may end up receiving unsustainable amounts of compensation that do not meet thresholds like minimum and living wages.
Pay delivery	Workers may receive their earnings in different forms, and as per schedules and processes designed by companies.	Methods like gift cards[35] and cryptocurrency are volatile, and have transaction costs that affect workers' earnings.[36]

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[25] Equidem (2025)

[28] Expert interview, anonymized.

[29] Equidem (2025)

[30] Muldoon et al. (2023)

[31] Stakeholder consultation 1

[32] Expert interview, anonymized.

[33] Muldoon et al. (2023)

[34] Expert interview, anonymized.

[35] Grohmann et al (2022)

[36] Posada (2024); Gray and Suri (2019)

Algorithmic management component	Description	Possible issues
Undesirable activity detection	Companies may devise mechanisms and processes meant to catch specific worker behaviours they find undesirable.	Penalize or halt workers' actions, like covering a camera,[37] or their attempts to access better opportunities through methods like using virtual private networks (VPNs).[38]
Termination	Systems or processes that remove workers from their roles and access to paid work. This can be a result of human action, some form of automation, or varying combinations of both.	Workers can lose access to their accounts and earning opportunities without clear reasons or appeals against such removal.[39]

Table 2. *Some components of algorithmic management*

Data workers and content moderation face algorithmic management in several aspects of their work environments, as well as their relationships with the companies engaging them. Replacing human managers and relationships with practices like metrics and queues creates problems rather than fair and sustainable work arrangements. Algorithmic management components become sites of contestation and intervention for stakeholders pursuing improvements to conditions in data work and content moderation, such as enabling workers to withdraw from task queues that adversely affect them. The ensuing paragraphs discuss some of the problems and strains that emerge as a result of the kinds of algorithmic management practices discussed above, which need to be considered in discussions, advocacy, and intervention.

Regulatory arbitrage
The digital nature of algorithmic management makes it possible to move data work and content moderation operations with relatively less friction. Firms can move operations across countries quickly, which can suddenly leave workers without work and income. Companies can also digitally access and manage labour forces in multiple countries at once.[40] This ease of moving in and out of regions weakens workers' ability to earn and expect work, as well as pursue accountability and change from businesses. The third

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[37] Stakeholder consultation 1

[38]Hao (2025); Expert interview, anonymized

[39] Grohmann et al (2022); Gray and Suri (2019)

[40] For a discussion on the transnational nature of AI, data work and content moderation, see the report, *Fragmented Responsibility*, also in this series.

stakeholder consultation observed a point that businesses can move operations to places with regulations that are laxer, and can shift in response to more stringent requirements, leaving many people without work.[41] This creates unpredictability and insecurity for workers and their earnings.

Unequal, diminished pay

Algorithmic management allows companies to seek out people from across the world who might work for lower levels of pay than local labour. Firms can move their operations to places where pay levels and requirements, like those of minimum wages, are lower, reducing companies' labour costs. Data workers and content moderators across the world may complete similar work, and face the same hazards, such as the risk of psychological trauma, but they receive different amounts of compensation.

Algorithmic management approaches can also involve payroll arrangements that complicate or harm the earning process for workers. Gift cards have been used as worker compensation, leaving people to seek ways to turn cards into usable money (Grohmann et al., 2022). The modifications of the pay relationship between workers and firms can go beyond gift cards. It is also possible for workers compensation to be delivered in the forms of digital currency and cryptocurrency, which can involve additional platforms that can diminish earnings through issues like the commissions charged or the volatility of cryptocurrencies (Posada, 2024). While digital operations might benefit companies, algorithmic management can make earning and accessing pay harder for workers.

Extensive monitoring and direction

Data work and content moderation can involve considerable monitoring of worker devices and bodies. Deviations in their activity, such as device use, or their productivity, reflected in things like performance metrics, can lead to adverse consequences. Such monitoring lacks restrictions in scope and intrusiveness, making it possible for surveillance to extend beyond the confines of digital work. In one interview, the expert spoke about how they were observed during the two years that they spent working from home. Another expert interviewee stated that the methods of monitoring workers could lead to poor conclusion-making on companies' parts. Monitoring systems create issues like encroaching on workers' privacy and space, as well as tracking and evaluation that can have harsh consequences, while lacking sound design, rationale, and transparency.

Worker monitoring is not only intrusive, but linked to controlling them and ensuring their involvement in the production process. Tracking workers' performance through metrics can also lead to penalties and extra effort for workers. Not meeting productivity-related expectations can lead to losing bonuses (Equidem, 2025) and even unpaid overtime work

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[41] Stakeholder consultation 3

(Muldoon et al., 2023). In the context of location-based platform work, "wage manipulators" like "surges," "offers," and "bonuses" can help get workers to move during periods of increased service demand (Dubal, 2023, pp. 17-31). While the linking of workers' productivity and bonuses has been discussed in the context of data work and content moderation (Equidem, 2025), it is uncertain whether nudges and enticements are used in these sectors the way they might be in platform ride-hailing. Nevertheless, the tracking of workers creates openings to push them to do more work and meet productivity-related benchmarks.

Relentless production

Metrics and production targets introduce and enforce requirements in terms of speed, accuracy, and volume. Workers need to stay ahead of such benchmarks in order to retain their roles, avoid scrutiny from supervisory processes, and even access pay incentives. Such features can create a harsh environment that does not tolerate non-compliance or errors. A participant in the second stakeholder consultation discussed how workers were not allowed to make as much as one mistake. One of our expert interviews discussed time constraints of 50 seconds per task, as well as indicators like logging in and out, and non-work activity. The use of and adherence to such standards puts pressure on workers and creates overwork-related risks.

In addition to the need to satisfy various metrics and requirements, algorithmic management can erode workers' ability to make choices over the course of their roles. In a conversation on content moderation, an expert interviewee talked about how workers were not able to skip any of the "tickets" they handled. The loss of autonomy can also arise out of information asymmetry, where workers do not know enough about their roles to make certain decisions. Another situation where the ability to refuse to do something matters can arise from workers' wishing to not associate with certain products or entities. Algorithmic management arrangements can harm workers' ability to opt out of tasks that they object to, or those that they feel they cannot engage in, such as handling disturbing content.

Workers can get exposed to "toxic" data, such as violence and gore, hate speech, and child sexual abuse material (CSAM). They may have to respond to users posting and circulating such material, or contribute to training efforts that can reduce AI models and services' capacity to produce toxic outputs. Whether they are policing user-generated content online or providing training data for AI toxicity, workers are exposed to disturbing content that can hurt their mental health.

The enforced pacing of algorithmic management exposes workers to large amounts of toxic content. The working hours required, as well as the number of completed tasks

involved, can exacerbate risks that come with exposure to disturbing materials featuring content like violence and CSAM. In an expert interview on content moderation, the reduction in human points of contact was brought up. In one content moderation set-up, the expert interviewed had heard about a shift from more human supervision to increasing automation. Such systems not only push people to work but can also put them at risk.

Fragile work

Tech pipelines' reliance on algorithmic management can lead to data work and content moderation roles that are fragile in the support, compensation, and certainty offered to workers. People are left in management situations where their pay may be sent to them in unconventional diminished ways, their work and activity may be measured in ways they do not understand, and they will be expected to keep pace with overly demanding targets. However, the second stakeholder consultation raised the point about how workers may also find approaches to resisting and cheating these systems, which are another aspect of algorithmic management to consider. For example, Grohmann et al. (2022) had observed the case of a microworker who, facing removals from the platform, used multiple accounts from their family to keep operating. It is possible for them to lose their access to such work through some form of account suspension or deactivation, and for the companies they work for to suddenly leave the country. Payroll, job security, and worker evaluations are some major aspects that become unpredictable and harsh under algorithmic management. With all the labour issues aspects like digital tools and platforms create, initiatives pursuing fairness for data workers and content moderators' roles must look at algorithmic management.

4 | Responses to algorithmic management

While algorithmic management might enable businesses to save costs and tap into global pools of labour and skills, they also create risks, harshness, and uncertainty for the people involved in data work and content moderation. In addition to the state and multilaterals, stakeholders like labour, policy, and civil society have responded with scrutiny and calls for change in algorithmic systems' functioning, design, and governance. Following the previous sections' discussions on algorithmic management and its issues, this section describes some of the ongoing work and responses for the data work and content moderation sector.

4.1 | Advocacy, research, and guidance

Stakeholders like workers and unions, as well as research and journalism, have broken ground on outlining problems and recommending changes. Over the years, the data work and content moderation sectors have seen labour advocacy, journalistic investigations, and research efforts. These developments have helped build movements, discussions, and action agendas for how these tech labour industries must change. Algorithmic management has featured in these discussions, and the sections below provide a short review of some of the ongoing efforts in voicing issues and calling for change.

Collectivising and advocacy

A number of initiatives and organizations have emerged to discuss, investigate, and organize around data work and content moderation. In terms of unions, there are efforts both at the national and international levels. **UNI Global Union** has operations across the world, and has been involved in discussions surrounding content moderation. In June 2025, they released a report on the content moderation process and presented protocols for worker well-being (UNI Global Union, 2025a). Another development is the formation of The Global Trade Union Alliance of Content Moderators (GTUACM). Started in April 2025, the GTUACM hosts unions from Morocco, Tunisia, Portugal, Colombia, Poland, Turkey, Ghana, and Kenya, and will be involved in collective action and research (Weatherbed, 2025).

In Kenya, the **Communications Workers' Union of Kenya (COWU)**, associated with **UNI Global Union**, entered an agreement with Teleperformance. This implementation agreement included features like respecting the freedom of association of workers and information sharing between the company and the union (UNI Global Union, 2025b). While unions and their representation efforts often focus on areas like wages, the possibility exists for discussions to include data collection and tech-based control. Algorithmic management systems can be involved in directing and monitoring labour,

such as directly and indirectly setting the pace of working. Thus, one important area for union efforts to examine and discuss is the use of algorithmic management.

The **African Content Moderators Union (ACMU)** and the **Data Labellers Association (DLA)** are two worker organizations that are pursuing change and accountability in content moderation and data work, respectively.[42] The ACMU formed in 2023, with moderators servicing a range of large tech firms coming together to advocate for worker issues (Perrigo, 2023b). They have been involved in research initiatives that discuss the content moderation sector's functioning and labour conditions, like the Data Workers' Inquiry and the Data4Mods project.

The DLA is a relatively younger organization, launched in early 2025 (Data Labellers Association, 2025a). Their recent activities have involved developing a data work "code of conduct," as well as a sample contract. Videos discussing the code of conduct show that the document considers aspects like compensating more of the effort involved in data work, contracts discussing data protection, opt-out measures for explicit content, and data protection for worker's data (Data Labellers Association, 2025b). One notable feature of their code of conduct is its discussion of workers' data and algorithmic management. Such initiatives can help develop conversations about and active attempts to change work environments through labour-firm collaboration.

Africa has been central for developments on data work and content moderation. Beyond the efforts outlined above, information on organizing in data work and content moderation has been relatively scarce. In Southeast Asia, the **BPO Employees Industry Network (BIEN)** has been involved in the issues of workers in roles like content moderation.[43] During the second stakeholder consultation, the difficulty of labour organizing was brought up, and how such efforts could have negative reactions. Labour organizing is an important part of pursuing change and fairness, but appears to differ across the regions of Africa, Southeast Asia, and South Asia.

Compared to the other two regions, South Asia lacks organizing and advocacy centring data work and content moderation. In India, there are unions focused on the IT sector, like the Karnataka IT/ITeS Employees Union (KITU), and location-based platform work, like the Telangana Gig and Platform Workers Union (TGPWU) and the Gig and Platform Service Workers Union (GPSWU). TGPWU has called for algorithm-related changes like workers' access to data, information about decision-making, and doing away with "unexplained suspensions, bans, and deactivations" (Telangana Gig and Platforms

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[42] The DLA and the ACMU have joined some of our stakeholder consultations.
[43] BIEN has attended one of our stakeholder consultations.

Workers Union, 2025). However, we are yet to witness collectivisation that emphasizes data work and content moderation, like in the cases of the DLA and the ACMU.

Technical research

Initiatives that document and explore the technological and data-related aspects of algorithmic management are also important to understanding labour conditions and pursuing interventions and changes. Such "technical research" identifies business practices, algorithmic designs, and data-related operations' functioning, as well as their effects on labour well-being, building evidence on the algorithmic features of worker precarity. **PersonalData.IO** and the **African Content Moderators Union (ACMU)** worked together on the Data4Mods project, outlining the outsourcing of content moderation and data labelling across several African countries (PersonalData.IO, 2025a). This effort helped build evidence of the spread of AI labour outsourcing and showcases a method for pursuing transparency.[44] Such projects can help dispel the invisibilities prevalent in data work and content moderation.

With the number of roles algorithmic management systems can play in workers' lives, from terminating workers to setting productivity expectations, it is vital that methods of scrutiny are available to workers. A variety of methods, such as access requests and surveys, can be used to understand platforms' functioning, with attempts having been made in countries like Switzerland, Italy, and Brazil (European Trade Union Confederation, 2025, p.3). Similar efforts in data work and content moderation can help develop evidence and strategies for algorithmic management. Collaboration, information-sharing and financial support can help worker organizations build the capacity and assets for such work, introducing a useful and increasingly relevant set of methods to them.

Beyond the workers, relevant institutions and stakeholders should also be able to examine algorithmic designs, processes, and data use. As crowdsourcing and digital work spread across the globe, particularly the Global South, workers, unions, and labour authorities need to find ways to examine the data and attempted automation companies use. Indian states' regulatory efforts, like in Bihar and Karnataka,[45] include points on data-sharing. Platforms need to share information about their registered workers, and worker-related transactions and welfare contributions are tracked on a government-run system. This is not necessarily an ideal approach, given the data-related risks, but it demonstrates

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[44] Further discussion on this initiative can be found in the report *Fragmented Responsibility*, also in this series.

[45] Two noteworthy developments to explore are The Karnataka Platform Based Gig Workers (Social Security and Welfare) Act, 2025 and The Bihar Platform Based Gig Workers (Registration, Social Security and Welfare) Act, 2025.

a gradual shift to data-sharing outside platforms, which can increase evidence-creation and monitoring surrounding workers' social security at least.

Guidance for algorithmic management

Over the years, worker unions, civil society and researchers have released works of "guidance" which outline ways that businesses need to change in order to provide safe and fair working conditions. Organizations like **Fairwork**, **SUPERRR Labs**, and **UNI Global Union** have introduced action points, principles, and workplace design recommendations for sectors like data work and content moderation.[46]

Some of this guidance has focused on the issue of algorithmic management, commenting on aspects like how much "egregious content" workers have to process (UNI Global Union, 2025a), and the metrics and indicators imposed on labour (Equidem, 2025). They cover topics like companies' disclosures to workers, restricting or stopping worker surveillance, standardising pay for workers globally, and changes to algorithmic management elements like task assignment and metrics. **Table 3**, provided in this report's **Appendix C**, outlines some of the guidance on algorithmic management for data work and content moderation.

Beyond perspectives centring on data work and content moderation, there is guidance that deals with the broader landscape of algorithmic management. Such work has focused on relevant topics like data protection (UNI Global Union, 2017), unions' engagement with algorithmic management issues (European Trade Union Confederation, 2025), and involving labour in the development of algorithmic systems (International Transport Workers' Federation, 2024). Initiatives on data work and content moderation can adopt useful guidance and ideas from other sectors that face algorithmic management.

4.2 | States and multilaterals

This section will discuss some of the measures and proposals for regulating algorithmic management that have emerged or been deployed across the world. At the time of writing, we are yet to find measures that are specific to data work and content moderation. This does not mean that no interventions exist or are being discussed. It is possible for the sector's issues to find solutions and possibilities in more wide-ranging interventions, like in measures addressing digital labour platforms.

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[46] Some of their guidance is discussed in Appendix C, at the end of the report.

Country-level developments

While sector-specific laws are in the early stages of imagination and enactment, there are ideas and attempts that provide insights into the shape and possibilities of future regulation. There are measures in the Global North that discuss algorithmic management in contexts like that of employee-employer relationships, the deployment of worker-facing technologies, and data collection. Some of the rules, processes, and obligations they raise can potentially be useful to sectors like data work and content moderation and their digital environments.

The United States of America (USA) has state-level measures that prevent or restrain business practices from practices like monitoring workers' social media accounts and private communications (Anjunwa, 2023). They cover topics like notifying workers about employers' data collection and its use in algorithmic management, limiting and prohibiting the monitoring of labour, and workers' ability to see and rectify their data (Khan and Bernhardt, 2025). Some relevant initiatives at regulating algorithmic management can be found in California (Johnson, 2025a; Johnson, 2025b). Some examples of these attempts are [Assembly Bill 1331](#), [Assembly Bill 1221](#), [Assembly Bill 1018](#), and the vetoed No Robo Bosses Act ([SB-7](#)).

China has pursued rules and interventions into algorithmic management, such as the 2021 [Internet Information Service Algorithmic Recommendation Management Provisions](#). Firms need to make submissions to the Internet Information Service Algorithm Filing System, but questions have been raised about such information-sharing being sufficiently detailed, and these requirements' scope and applicability (Sheehan and Du, 2022a). Under this registration approach, algorithmic transparency may develop between regulators and companies, but not necessarily between firms and the wider public (Xu, 2024), like workers. In addition to the registry, the Provisions also talk about firms upholding work aspects like rest and pay, and tending to labour's "rights and interests (Creemers et al., 2022)." A document, from a group that included the Cyberspace Administration of China (CAC), had also called for companies' use of "moderate" algorithms, relaxing time requirements, keeping incomes from failing to meet minimum wage levels, and insurance (Sheehan and Du, 2022b). Registries may help with algorithmic scrutiny, but companies must be made to engage with them.

India has also been involved in developing regulations for "platform-based gig work," ranging from the national-level [Code on Social Security](#) (2020) to state initiatives in [Rajasthan](#), [Bihar](#), and [Karnataka](#). While much of these measures' focus has been on social security for platform workers, a number of requirements on algorithmic management have also emerged. Bihar's Act covers a range of issues, like workers seeking information on their personal data being gathered, the automated monitoring and decisions involved,

asking for decisions' review, and explanations and advance notices for termination.[47] As discussed earlier in the report, state efforts have also involved data-sharing for worker registration and welfare fund-related information.

The state of protections on algorithmic management remains relatively meagre and nascent, despite its role in labour conditions. India has introduced [rules](#) for the [Digital Personal Data Protection Act, 2023](#). This data protection regulation makes it possible for people to view, modify, and seek the erasure of their data, and to know the purposes their data are used for by others.[48] However, the Act is a recent development, leaving its impact on and potential for addressing issues surrounding labour and algorithmic management unclear.

Actions that target algorithmic management outcomes are another possibility. For instance, in location-based platform work, regulation on surge pricing and floors for "low demand" fares could affect the determination of worker pay, which is something the draft of the Maharashtra Motor Vehicle Aggregator Rules, 2025 had attempted (Ozarkar, 2025; Singh, 2025). For data work and content moderation, such an approach could involve mandates and discussions on topics like calculating hazard pay for workers handling toxic data in forms like sexual abuse or violence. Algorithmic management can be subjected to requirements that discuss not only systems' design but their outcomes too.

Algorithmic management appears to be an emerging area of policy and regulation, with some countries already having introduced or proposed some measures. As phenomena like AI, digital labour platforms, and workplace automation grow, the area will grow more urgent and contested. Beyond countries' governments, the likes of the European Union and multilaterals, with possibly more ground and stakeholders to cover, have also made strides in areas like worker-related data and algorithmic management.

Wider attempts and measures

Several interventions for platform work and algorithmic management are also in the process of development and use at the transnational level, like those of the EU and multilateral organisations like the International Labour Organization (ILO). While human rights due diligence (HRDD), like the United Nations Guiding Principles on Business and Human Rights (UNGPs) and the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct, discuss firms' need to uphold rights, we are yet to see the deployment of a multilateral framework for AI labour.

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[47] The Bihar Platform Based Gig Workers (Registration, Safety and Welfare) Act, 2025 is the state of Bihar's intervention into platform work

[48] Digital Personal Data Protection Rules, 2025 (India) come after the Digital Personal Data Protection Act, 2023

The European Union (EU) is an important site of regulations and measures on data and the attempted automation of work. Projects from the likes of Worker Info Exchange (WIE)[49] and the European Trade Union Institute (ETUI)[50] have shown that measures like the General Data Protection Regulation (GDPR) can help dissect algorithmic management (Worker Info Exchange, 2022; Agnosti et al.,2023). Beyond data protection, other approaches are also important to algorithmic management issues. For example, Austria, Germany, Sweden, and Italy are geographies where labour representatives and works councils play a part in "the introduction and use of new monitoring technologies" (Abraha, 2025, p.27). Thus, the Global North has a number of examples of approaches for dealing with algorithmic management, though their ability to affect transnational, task-based sectors like data work and content moderation are a developing issue.

2024 saw the finalisation of the EU's Platform Work Directive (PWD), which discusses algorithmic management aspects of the platform economy. Its chapter on algorithmic management covers data processing transparency, technical research, human oversight and review, work pressure, and consultations with workers. The directive includes worker representatives (Rainone, 2025) and state authorities in the operations of platform work. It opens up the algorithmic management and data collection aspects of digital labour platforms to scrutiny and contestation from beyond individual workers. Data is useful to unions too, as it helps workers understand companies' functioning, enables labour to ensure that collective agreements are upheld by firms, and makes it possible to "challenge" businesses (European Trade Union Confederation, 2025, p. 3). Measures enabling worker-facing stakeholders to explore algorithmic management can help build the capacity of labour to engage and contest tech-related problems. Such an approach could be useful to data work and content moderation, which frequently involve digital platforms, data, and digital tools.

While it is yet to reach implementation, and is rooted in the context of the EU and digital labour platforms, the PWD presents a host of considerations for task-based work like data work and content moderation. Data workers and content moderators can benefit from regulatory features like mandating notifications about algorithmic monitoring and decision-making, limiting companies' ability to enact discipline and automate certain management functions, and requirements that can lead to pro-worker changes to algorithmic management systems.

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[49] WIE's 2022 report, *Managed by Bots*, is a useful resource on platforms' algorithmic management
[50] The report by Agosti et al. (2023), *Exercising workers' rights in algorithmic management systems* offers an intriguing examination of data collection in delivery work

The **International Labour Organization (ILO)** met in 2025 to discuss "decent work in the platform economy" in its inaugural standard-setting session on the topic (International Labour Organization, 2025a). This process is ongoing, with the upcoming 2026 International Labour Conference (114th ILC) scheduled to continue the discussions. The use of algorithms in the context of digital labour platforms (DLPs) saw considerable debate during the 113th ILC. On one hand, the ILC featured arguments that viewed algorithms as a part of labour intervention, and on the other, there were those who argued that the ILO, an organization concerned with topics like working conditions, was reaching into other authorities' domains, such as competition law (Bhattacharjee and Shivakumar, 2025). While practiced through a series of digital tools and data processing systems, algorithmic management should see discussion as a labour topic, due to its close ties to issues like pay, termination, occupational safety, and stress. Standards by global bodies like the ILO could provide requirements and best practices on the use and design of algorithmic management in sectors like data work and content moderation.

Around the time of the 113th ILC, a draft "[Platform Workers Convention]" was prepared for the International Trade Union Confederation (ITUC) and International Lawyers Assisting Workers Network (ILAW) (De Stefano, 2025a). The draft includes points like quotas not hampering workers' rest, algorithmic management being introduced with worker representatives' assent, disclosures and notifications about monitoring and decision-making, and minimizing data collection to the "strictly necessary" (De Stefano, 2025b). The draft convention provides a useful review of how algorithmic management needs to be subject to restrictions, obligations, as well as checks and involvement from labour-related stakeholders.

Despite being sources of labour supply, the Global South has relatively few measures available to address algorithmic management problems. Workplace surveillance widely suffers from "minimal worker protections" and a lack of "enforcement" in territories with data protection regulations (CoWorker.org, 2025, p. 6). Not only do many countries suffer from a lack of local measures for algorithmic management, but there is also a scarcity of international guidance on algorithms and labour. In 2024, the ILO had noted that "International labour standards do not specifically address issues concerning the use of algorithms" (International Labour Organization, 2024, p. 34) and that "No international standards regulate in a comprehensive manner the protection of workers' personal data" (International Labour Organization, 2024, p. 34). Over time, there need to be regulatory attempts and multistakeholder discussions on how Global South governments can scrutinize and intervene in the algorithmically managed work reaching their people. Existing regulatory initiatives from the Global North, in topics like workplace surveillance and data protection, can offer some insight on existing approaches, businesses'

responses, and measures to consider in future undertakings. This project's virtual convenings helped unearth some considerations and ideas for such thinking.

Our discussions and consultations on Africa, Southeast Asia, and South Asia have shown that a variety of activities have emerged to discuss algorithmic management in data work and content moderation. Intense surveillance, in forms like webcam feeds[51] and the measurement of workers' idle and break time,[52] affects labour across the three regions. Alongside monitoring their activity, workers also have to satisfy productivity-related metrics that measure things like their task volumes and accuracy,[53] as well as the errors committed,[54] which may be tied to disciplinary measures.[55] Participants' sharing across consultations points to algorithmic management being a harsh and intrusive form of measurement, supervision, and discipline for data workers and content moderation.

Labour responses to issues like algorithmic management also show some levels of difference across the three regions. Africa has seen the emergence of local unions that are specific to data workers and content moderators, like the African Content Moderators Union (ACMU) and the Data Labellers Association (DLA), which have been involved in initiatives like building a code of conduct which cover algorithmic management (Data Labellers Association, 2025b), and person-data-protection-based research on outsourcing and data collection (PersonalData.IO, 2025b). In Southeast Asia, we have heard about content moderation from the BPO Employees Industry Network's (BIEN). South Asia also hosts data work and content moderation but appears to lack explicit networks, advocacy and labour action in these sectors. While there are similarities in algorithmic management, regional differences exist as well in labour responses.

As the AI industry continues its attempts at expansion and experimentation, the labour driving much of the development and maintenance of these systems will remain a pressing issue. While this project has run into a number of regulations, initiatives, and worker undertakings, much work remains to be done. Algorithmic management creates extensive difficulty, unfairness, and uncertainty for the global labour force doing the crucial work of developing, de-toxifying, and refining tech products and services like AI chatbots. It is vital that governments move to scrutinise sectors like content moderation and introduce protections and rules for the digital components and environments that manage AI labour. There is a great need for research and investigation into the business practices and labour problems prevalent in the futures of work presented by digital labour platforms, outsourcing, and tech supply chains. Workers and labour organizations

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[51] Stakeholder consultation 1
[52] Stakeholder consultation 3
[53] Stakeholder consultation 3
[54] Stakeholder consultation 2
[55] Stakeholder consultation 2

will have to find ways to build solidarity across places and regions, so that these transnational sectors cannot evade scrutiny, accountability or worker voices.

Even if outsourcing and platform-based work represent "relatively better" opportunities in the Global South, this does not diminish the need for and legitimacy of raising issues and seeking interventions into topics like algorithmic managements' adverse designs and effects. As a source of so much of the digital workforces driving the likes of AI and social media, it is especially important that the Global South respond to algorithmic management. This response should include data work and content moderation, but also the wider spread of such practices and systems in the working world. The next section attempts to discuss some of the ways forward for algorithmic management in the context of data work and content moderation.

5 | Ways forward

Companies' use of digital tools and data collection on labour must involve processes, restrictions, and minimums that stop algorithmic management from becoming an intrusive, uncontestable, opaque, and unrelenting form of worker control and tech production. This section consolidates the project's secondary research, stakeholder consultations, and expert interviews to present a set of algorithmic management considerations for different stakeholders.[56] Some of the major players central to addressing algorithmic management issues are governments and international bodies, businesses, and labour. The points that follow offer some recommendations for these stakeholder groups.

Businesses

Broadly speaking, there are at least three kinds of businesses to consider:

1. L*ead firms* that seek AI solutions and moderation, who act as the final clients.
2. V*endors* that offer labour forces and adjacent services, like project management and recruitment, to lead firms.
3. *Third-party providers* that may get digitally involved in various aspects of production in data work and content moderation.

Whichever of these three players play the roles of developing or running data workers' and content moderators' algorithmic management regimes, must pursue practices that provide transparency, contestability, and access.

● **Comprehensive, updated notices:** Businesses must notify data workers and content moderators about their being subject to algorithmic management, including data collection.

○ Businesses must disclose what data is collected, who all collect and use it, and where it gets used. The metrics and evaluation processes' components and functioning must be clearly communicated to workers.

○ Changes to the algorithmic management setup, such as the metrics used, must also be communicated to workers, with updated disclosures on how the system will observe, evaluate, and manage them.

○ Companies must ensure that worker-facing documentation and processes have updated assets, like disclosures and privacy policies, and sufficient resources for responding to inquiries and grievances.

● **Increased stakeholder engagement:** Lead firms and vendors need to engage with guidance and calls to action from stakeholders like worker organizations and research undertakings.

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[56] For further considerations and pathways, please consult the reports, *Invisible Workers, Visible Harms* and *Fragmented Responsibility*, also in this series. They discuss working conditions and transnational accountability, respectively.

- ○ Businesses should actively consult and negotiate with labour on major issues arising out of algorithmic management. They need to work with labour to develop alternatives and improvements in these set-ups, and form relationships with collective bodies that either develop on their own or arise out of existing organizations.
- ○ Labour concerns and recommendations on metrics, productivity targets, and evaluation processes should be actively considered in reworking algorithmic management setups. Quotas and metrics must be determined after consulting with workers, so as to define sustainable workloads and fair evaluations.
- ○ Labour-silencing tools like non-disclosure agreements (NDAs) must be discarded and rolled back, such that workers can discuss problems and possible solutions, and use facilities available to them.
- ○ Alongside labour collaboration, businesses need to explore and experiment with guidance[57] emerging from research, civil society, other businesses, and international bodies.

- **Tightened scope of automation and algorithmic management:** From discussions with labour, as part of compliance, and after considering sector-related guidance, businesses need to minimise their algorithmic management of and interaction with workers' lives as far as feasible.
  - ○ Businesses, in consultation labour, need to define the scope of algorithmic management. They need to identify what data will be gathered, how much data would be needed for the worker-firm relationship's functioning, what the data will be used for, and determine what business functions be automated and what remains human-run.
  - ○ Companies must have redlines and guarantees on human involvement business aspects that rely on algorithmic management. They need to identify processes that have substantial effects on workers and ensure that algorithmic management systems cannot act alone in these areas.
  - ○ Human-dominated review and grievance redressal needs to be available to labour for algorithmic management issues and inquiries. Companies must have personnel who can review and overturn algorithmic management processes, as well as make wider changes to these systems.

Governments and international bodies

In addition to forming and implementing regulations on labour issues, various levels and bodies of governments can also leverage their procurement processes, as well as enable initiatives that pursue workers' interests and well-being.

- **Regulations on workers' data and algorithmic management:** It is vital that the

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[57] Appendix C goes over some of the guidance that has emerged for the sectors of data work and content moderation

development and deployment of algorithmic management be subject to regulations. States need to introduce measures that explicitly discuss topics of automated decision-making's design and functions, the use and collection of data from workers, and working conditions created by these setups. Some provisions to consider are rights of data access and decision review, redlines on the use of algorithmic management, obligations on human involvement in management roles, and empowering worker organizations and representatives to address and act on tech, automation, and data aspects.[58]

- **Issuing guidance:** Algorithmic management is a growing issue across sectors and regions. There is an urgent need for recommendations, as well as more binding rules and requirements, that go past data protection and discuss the design, functioning, and control of algorithmic management systems. Such initiatives must not stop at categories like traditional "employment" or location-based gig work, and need to engage with the likes of remote work, outsourcing, and online platforms. Besides organizations like the ILO, such guidance can also be developed by more regional bodies like the African Union (AU) or the Association of Southeast Asian Nations (ASEAN).

- **Introducing labour requirements into procurement:** State-related procurement of AI data solutions and moderation should need companies to meet benchmarks for the treatment of labour. These requirements can cover topics like workers' data protection, restrictions on algorithmic management functions, and requirements on human involvement. Governments can develop these conditions for public procurement by consulting players like worker organizations and research and advocacy groups.

- **Reduce barriers to the scrutiny of algorithmic management:** Governments should work to enable the scrutiny of algorithmic management.
  - Countries hosting the outsourcing that uses algorithmic management should introduce databases for algorithmic management tools. These databases should, at the very least, enable state authorities to closely examine the effects of such digital tools.
  - Regulatory efforts on information-sharing and data sharing related to algorithmic management should extend access beyond individual data workers and content moderators. Labour organizations that have workers' consent, and potentially state bodies that have workers' consent and have roles like those of inspection, should have some level of access.

- **Enabling research and evidence-building:** Government agencies that foster and finance research can back efforts on labour relations and management in data work and content moderation. Such entities can enable worker efforts to

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[58] Adams-Prassl et al. (2023) describe several components that can go into regulating algorithmic management, and Hendrickx (2022) discusses "general principles" for workers' data.

document the use of algorithmic management on workers, convene policy discussions on addressing algorithmic management issues in the Global South, and promote information-sharing and strategy-building between different stakeholder groups.

Labour: Workers directly face algorithmic management, and are essential to change and accountability. There are certain actions and approaches that they, as well as worker representatives and organizations, can consider and pursue to defog the design and operations of precarious sectors like data work and content moderation.

- **Evidence-building:** Where possible, workers can present proof of business practices and document problems regarding algorithmic management. Through means like direct testimonies from workers and lists of how algorithmic management makes decisions or surveils people, workers and organizations can clearly illustrate the problems that affect them.
- **Alternative designs:** Beyond articulating the failure of algorithmic management systems in data work and content moderation, labour-led initiatives can provide recommendations on key aspects of their roles. Some topics that would benefit from worker recommendations include how pay is calculated for different roles and tasks, the safety measures and options that should be in place for workers handling toxic data, and the scope to which businesses' automated decisions and data gathering should be restricted.
- **Coordination and information-sharing:** Workers and labour-led organizations across places and regions should find ways to connect and collaborate. Collaboration can be at the country, regional, and global levels, such that information on businesses and their practices, as well as strategies for responding to algorithmic management, can reach workers wherever data work and content moderation businesses appear.

Algorithmic management is a problem with multiple fronts, ranging from low enforcement and the need for policy to the importance of changing business practices and working with businesses. The data work and content moderation sectors are a key site for discussion and acting on the issue of technology in workplaces, and developments here will be important to wider thinking on the future of work and management.

6 | Conclusion

June 2025 saw Meta invest over USD 14 billion in Scale AI, a data solutions company (Perrigo, 2025). In 2024, the market size for data labelling was approximated to be around USD 18.6 billion and projected to touch USD 57 billion by the end of the decade (Grand View Research, 2024). Three years into the release of ChatGPT, the AI sector continues to invite billions in investments and spending. As AI grows in scale, the human labour behind so much of the sector's development remains in a precarious position.

Data workers and content moderators endure precarious labour conditions as they support tech sectors like AI and online safety.[59] A substantial share of these problems are connected to businesses' use of algorithmic management to coordinate and manage digital labour, which was the focus of this document. Through software and surveillance, companies are able to create digital environments that let them engage labour from around the world while minimizing their obligations to workers and intensifying their control and extraction of work. Algorithmic management allows businesses to compel hard work, outsource cheaply, and pick and discard labour at their leisure.

There is a growing body of guidance from labour, research, and civil society that outlines the issues algorithmic management causes, and how these practices need to be changed to improve data workers' and content moderators' conditions. Both the data gathered from workers, and the tools involved in decision-making require intervention. Compared to the Global North, the Global South has fewer measures regarding labour issues of algorithmic management. Existing regulations and ongoing policy work present possibilities and key considerations for future attempts at scrutinising and regulating contesting algorithmic management. Worker-centred measures that create protections and contesting power for workers are essential to further responses to algorithmic management.

This report has described some of the issues and considerations surrounding algorithmic management in data work and content moderation. There are many points that deserve greater attention and further work, which we look forward to seeing in future research. There is a need for methods and benchmarks for task pay calculation, healthy alternatives to stringent metrics and targets, and support measures for work-related risks and hazards. Another fruitful area would be building a typology of data and algorithm-related rights and regulations, and discussing possibilities for Global South countries' intervention, beyond guidance from more elaborate policy regimes like the EU.

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[59] For a discussion on data workers and content moderators' working conditions, see the report, *Invisible Workers, Visible Harms*, also in this series.

Empowering labour representatives and unions, or even committed authorities, to understand algorithmic management and data collection is another promising area. Such efforts in data work and content moderation could help build evidence and work more closely with businesses to develop better practices and agreements.

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Appendix A | List of experts[60]

1. **Alexandra Mateescu** | Data & Society
2. **Angela Chukunzira** | Siasaplace
3. **Benjamin Shestakofsky** | Cornell University
4. **Dunstan Allison-Hope** | Independent
5. **Ephantus Kanyugi** | Data Labelers Association
6. **Isabel Ebert** | UNHRC B-Tech
7. **Dr Jun-E Tan** | Khazanah Research Institute
8. **Joan Kinyua** | Data Labelers Association
9. **Julian Posada** | Yale University
10. **Kauna Malgwi** | African Content Moderators Unions
11. **Kriangsak Teerakowitkajorn |** Just Economy and Labor Institute
12. **Leslie Dwolatzky** | Research ICT Africa
13. **Martjin Arets** | GigCV and WageIndicator
14. **Michaela Chen** | Foxglove
15. **Milagros Miceli** | Distributed AI Research Institute (DAIR)
16. **Mohammed Amir Anwar** | University of Edinburgh and Planetary AI
17. **Mophat Okinyi** | Techworker Community Africa
18. **Rafael Grohmann** | University of Toronto
19. **Rim Melake** | SUPERRR Lab
20. **Sadhna Sanjay** | IT for Change
21. **Shazrul Ariff** | Independent
22. **Tim Newman**| TechEquity
23. **Wanjiru Mburu** | Qhala
24. **Wasel Bin Shadat** | University of Dhaka

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[60] Although the research team consulted 38 experts, only those who explicitly agreed to have their names and affiliations published in this report are included in this list.

Appendix B | Research methodology

This document is part of a project on AI labour in the Global South. The project's research efforts and stakeholder engagement informed three reports. The first report discusses the tech sectors' need for data and the problems arising from their engagement of human labour. Algorithmic management systems that manage data workers and content moderators are discussed in the second report. Finally, the third report discusses the transnational nature of the data work and content moderation sectors and explores current measures for pursuing accountability and fairness in such outsourcing.

The reports were developed through a combination of 38 expert interviews, 3 multistakeholder discussions, and secondary research. Secondary research involved a review of scholarly literature, media investigations and coverage, reports and discussions from civil society, and policy discussions of existing and proposed measures. These sources helped understand aspects like precarious working conditions, prevalent business practices, potentially relevant regulatory developments, and worker-led initiatives.

Through secondary research and our understanding of the digital labour ecosystem, we identified several people who had expertise in topics relevant to our work. The practitioners we reached out to had insights into topics like platform work, digital labour organising, content moderation outsourcing, human rights due diligence, and the future of work. We developed questions based on our respondents' focus areas and on the reports' themes, culminating in interviews lasting between 45 and 60 minutes.

We convened three stakeholder consultations. Each virtual event in this series focused on one of three regions: Africa, Southeast Asia, and South Asia. For each event, we invited participants by identifying them in our secondary research efforts, experts' recommendations, and through our networks.

Thus, our secondary research efforts were complemented by our engagement with various practitioners and stakeholders related to data work and content moderation. The reports blend the information gathered from the stakeholder consultations and expert interviews with the ongoing research and investigations of various institutions and professionals across the world. They are intended to act as companion resources and starting points for future initiatives and interventions on data work and content moderation sectors active in the Global South.

Additional Resources:
1. Readback 1: Stakeholder Consultation on Africa
2. Readback 2: Stakeholder Consultation on Southeast Asia
3. Readback 3: Stakeholder Consultation on South Asia

Appendix C | Selected Guidance

The table below discusses some of the guidance available on algorithmic management in data work and content moderation. The citations for this table's footnotes can be found in the "References" section of this report.

Source	Selected points of guidance on algorithmic management
Fairwork (2023)[61] *Fairwork AI Principles*	1. Enable workers to understand AI systems' decision-making. 2. Workers get to appeal AI systems' decisions, leading to revisions of both individual decisions and their larger processes. 3. Companies refrain from "excessive surveillance" and "invasive technologies." 4. Employers must minimize data collection and notify workers of data gathering.
SUPERRR Labs (2023)[62] *Content Moderators Manifesto*	1. "Oppressive and unreasonable surveillance and algorithmic management" needs to end. 2. Content moderation's outsourcing has to end. 3. Social media companies must be uniform in workers' remuneration and treatment across the world. 4. Companies must make sure that "equal work is equally compensated."
SUPERRR Labs (2025)[63] *Data Workers Demand Safe and Fair Conditions*	1. Companies must have "uniform standards for benefits and working conditions" for data workers around the world.
Pollicy (2025)[64] *Fair Digital Kazi Manifesto*	1. Algorithmic management needs to adhere to standards of "transparency, explainability, and fairness." 2. Workers must be notified about the data involved in decisions regarding "jobs, wages, and ratings." 3. Workers should have appeals mechanisms that provide human review of automated systems' decisions. 4. The state should mandate accountability measures like transparency reports and algorithmic audits.

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[61] Fairwork (2023)
[62] SUPERRR Labs (2023)
[63] SUPERRR Labs (2025)
[64] Pollicy (2025)

Source	Selected points of guidance on algorithmic management
	5. There need to be measures that allow workers to "challenge and appeal" unfair decisions.
UNI Global Union (2025)[65] *The People Behind the Screens*	1. Reduce the level of workers' exposure to disturbing materials. 2. People should have the option to ask to be transferred to different work. 3. Human reviews to replace "productivity metrics." 4. "Productivity expectations" should reflect the "complexity" of the material handles. 5. Workers should be able to question algorithmic management about issues like "promotion, pay, and termination."
Equidem (2025)[66] *Scroll. Click. Suffer.*	1. Platform redesigns that reduce the "circulation of toxic materials" to reduce the need to put people at risk.
Aapti Institute (2025)[67] *Responsible Data Work*	1. Compensating workers based on the time they commit rather than the completion of tasks. 2. Paying workers without delaying or refusing to transfer money, based on a fixed schedule and with national currency. 3. Human-run communication for workers. 4. Proper assistance for workers' digital tools and softwares. 5. Quotes need to allow breaks. 6. Transparency regarding task rejection.
Partnership on AI (2021)[68] *Responsible Sourcing of Data Enrichment Services*	1. Explore standardized ways to provide fair compensation to data workers. 2. Develop practices for providing "clear instructions." 3. Think about a "portable benefits system" to provide all workers with access to services such as healthcare.

Table 3. *Various guidance on algorithmic management aspects of data work and content moderation*

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[65] UNI Global Union (2025)
[66] Equidem (2025)
[67] Aapti Institute (2025)
[68] Partnership on AI (2021)