POLICYBRIEF

Artificial Intelligence: Addressing or Distorting the Modern Slavery Challenge?

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Recommended Policy Actions:

- It is recommended that investors form partnerships, for example with data scientists, civil society organizations, and businesses, to better understand the positive potential and adverse impacts of Artificial Intelligence (AI), and encourage investees to adopt innovative technologies, taking into account safeguarding, that enhance transparency and visibility on modern slavery risks in their value chains.
- Policymakers should incorporate safeguards and risk mitigation measures to protect victims and survivors of modern slavery; support the ethical and well-designed deployments of new technologies; and provide guidelines and forums for public-private dialogue on best practices related to new technologies.
- Businesses are in a position to use innovative technologies that improve transparency and visibility on modern slavery risks and ensure these solutions include safeguard measures to protect workers and vulnerable populations.
- Technology firms must intentionally incorporate safe and ethical principles when designing AI tools and work with a diverse group of actors to ensure AI data models encompass more inclusive and representative datasets.
- It is advisable for researchers to further explore the potential and limitations of using AI to aggregate and analyse data to support efforts to address modern slavery risks, and work with the public and private sectors to conduct research and disseminate their findings.

Introduction

With an estimated 50 million[1] people worldwide in modern slavery,[2] the financial sector faces growing expectations and regulatory requirements to report, mitigate, prevent, and remediate modern slavery risks. To comply, investors need to answer critical questions about their exposure to modern slavery, such as:

"Where and how and via whom am I linked to issues of modern slavery?"

Dan Neale, Responsible Investment Social Leads Theme, Church Commissioners for England

However, the often deliberately hidden nature of modern slavery incidents presents a challenge for investors to identify and measure these risks. This challenge is exacerbated by intricate, opaque global supply chain networks and the lack of nuanced, high-quality data. In the face of these challenges, new and promising tools have emerged: the integration of Artificial Intelligence (AI) and other new technologies. They could potentially revolutionize the way investors and businesses address modern slavery risks.

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1 International Labour Organization (ILO), Walk Free, and International Organization for Migration (IOM), *Global Estimates of Modern Slavery: Forced Labour and Forced Marriage* (Geneva: ILO, 2022).
2 This estimate refers to forced labour, commercial sexual exploitation, child labour, and forced marriage.

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To shed light on this topic, CCLA Investment Management,[3] in collaboration with UNU-CPR's Finance Against Slavery and Trafficking (FAST) initiative[4] and the UK Modern Slavery and Human Rights Policy and Evidence Centre (Modern Slavery PEC),[5] hosted a roundtable that brought together a diverse group of 48 investors, business executives, policymakers, tech firms, civil society organizations (CSOs), and researchers, including six speakers to inquire: how might AI enhance the aggregation and assessment of data on modern slavery risk and on businesses' anti-modern slavery endeavours?

The discussion[6] revealed the challenges that investors and businesses face in assessing modern slavery risks, and explored how stakeholders can harness the capabilities of AI to help them detect and assess these risks. Participants also emphasized that AI brings ethical and legal challenges that require careful consideration and robust safeguards to protect vulnerable populations at risk.

This investor-focused brief highlights pivotal insights from the roundtable and offers recommendations for investors, policymakers, businesses, tech firms, and researchers regarding AI's role in addressing modern slavery risks.

Definitions:

Modern slavery: An umbrella term that encompasses various forms of conduct, defined in different ways, but all involving a person being exploited or deprived of their freedom through coercion, threats, violence, or deception. These forms can often intersect, with people potentially experiencing multiple types, such as forced labour and human trafficking.

Artificial Intelligence: An interdisciplinary field, usually regarded as a branch of computer science, dealing with models and systems for the performance of functions generally associated with human intelligence, such as reasoning and learning.[7]

What are Investors' Data Needs and Challenges?

The roundtable began with a discussion of investors' data needs and challenges, before moving on to consider the potential role of AI in addressing them (following section). In his opening remarks, Dan Neale, from the Church Commissioners for England, emphasized that the data needed for investors' decision-making often varies based on investor types (for example, private equity versus pension fund or asset owner versus asset manager).[8] Broadly, he noted that investors require an aggregated, yet nuanced view of corporate risks and impacts related to modern slavery to make informed and responsible decisions.

However, research led by the Alan Turing Institute and the Bingham Centre for the Rule of Law noted the challenges investors have in obtaining actionable data, including incomplete company disclosure data, inaccessible information, lack of comparability, and reliance on third party data derived from opaque methodologies. Additionally, FAST research found that investors often lack a shared understanding of the term 'modern slavery' and its metrics.

This section briefly presents the array of tools that investors currently use in decision-making and the challenges users identified in employing them.

Modern Slavery Statements

Professor Steve Young presented Lancaster University's[9] manual analysis of 100 modern slavery statements, required under the UK Modern Slavery Act (MSA). Despite the substantial number of statements in the UK (estimated at 12,000–17,000 annually[10]), which could aid investors' due diligence, the research found that statements focused on policies and lacked decision-relevant detail, like risk assessment disclosures and specific metric reporting. Moreover, research[11] by the Future Society, Walk Free, and WikiRate found that it takes approximately one hour for volunteers to manually evaluate one statement and for researchers to validate their results.

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3   More information on CCLA Investment Management is available at: https://www.ccla.co.uk/.

4   More information on FAST is available at: https://fastinitiative.org.

5   More information on Modern Slavery PEC is available at: https://modernslaverypec.org/.

6   Owain Johnstone, "Can AI help address modern slavery in supply chains?," Modern Slavery PEC, 23 May 2023, https://modernslaverypec.org/latest/can-ai-help-address-modern-slavery-supply-chains.

7   ITU recommendations ITU-T F.749.13 (06/2021) and ITU-T F.749.4 (06/2021).

8   For instance, private equity investors, with substantial company stakes, require extensive due diligence for intimate comprehension and regular financial and ESG data. In contrast, pension funds, managed conservatively by asset managers, process large and complex datasets at scale and more quickly.

9   "Ground-breaking research led by Lancaster University finds Boardrooms must still do more to eradicate modern slavery," Lancaster University, 25 April 2022, https://www.lancaster.ac.uk/news/ground-breaking-research-led-by-lancaster-university-finds-boardrooms-must-still-do-more-to-eradicate-modern-slavery.

10   More information on Project AIMS' modern slavery statements analysis can be found at: https://github.com/the-future-society/Project-AIMS-AI-against-Modern-Slavery.

11   "Project AIMS (Artificial Intelligence against Modern Slavery)," Future Society, last accessed 5 October 2023, https://thefuturesociety.org/project-aims-artificial-intelligence-against-modern-slavery/.

ESG Rating Agencies

While Environmental, Social, and Governance (ESG) rating agencies offer indicators to assess a company's performance regarding modern slavery risks, like location of supply chain risks and controversy exposure, the data tends to centre on business risk (versus risk to people and planet). Additionally, reporting on controversies may discourage companies from disclosing modern slavery incidents, even if they have taken some form of action. Differences[12] among rating agencies' methodologies and sources (like news articles and companies' sustainability and annual reports) arise due to their strategic focus, ranging from commercial to open source approaches. Roundtable participants noted a gap in measuring concrete outcomes, making it difficult to enforce corporate accountability on modern slavery.

Attendees also stressed the need for a consistent global set of minimum baseline metrics for decision-making. Echoing this focus, roundtable presenter Elaine Mitchell-Hill from Marshalls PLC highlighted the importance of companies understanding investors' data needs, preferences, and usage for tangible impact. In addressing concerns about non-disclosure due to potential negative ESG scoring and impact, Elaine Mitchell-Hill shared the example of Marshalls' transparent efforts to address child labour in the Indian sandstone sector supply chain. Although these efforts encouraged other businesses to follow suit, they also demonstrated the difficulties that Marshalls faced trying to secure the buy-in and compliance of their suppliers.

"Being a lone voice meant considerable push back from suppliers in the sector, in-country mining associations, and from others serving the UK market."
Elaine Mitchell-Hill, ESG and Human Rights Director, Marshalls PLC

A Review of Australia's Modern Slavery Act[13] also suggested that businesses should be required to disclose modern slavery incidents as a way to remove stigma associated with reporting on incidents.

Human Rights Due Diligence

The United Nations Guiding Principles on Business and Human Rights assert that businesses, including investors, have the responsibility to respect human rights and conduct human rights due diligence (HRDD) to identify related risks. Challenges noted by investors when applying HRDD include:

- Resource-intensive data collection (a particular hurdle for asset managers overseeing vast company investments);
- Dependence on self-reported company data;
- Social audit data that can be fraudulent[14] and of poor data input;
- Inadequate regulation in a company's jurisdiction.

Overcoming these challenges involves integrating HRDD with environmental due diligence, focusing on outcomes data and key metrics, and triangulating information from CSOs, worker rights organizations, and publicly-available benchmarks, like the Global Slavery Index.[15]

Can Leveraging AI Address Data Challenges?

Dan Neale and Elaine Mitchell-Hill both highlighted the potential value of AI tools offering investors a holistic view of corporate risks and impacts that superimpose smart layers of data on global operations. This includes data on supply chains, high-risk countries and sectors, workforce demographics, populations at risk, and working conditions. For instance, augmented ESG analysis might enable triangulating data from a variety of sources, such as satellite imagery, social media, sensors, CSOs and knowledge experts, and proxy data as identified by the algorithms model, in addition to contextual and historical variables that could help predict risk areas for ESG ratings.

Using AI to Expand Modern Slavery Datasets

Participants suggested that AI-powered tools could recognize patterns, anomalies, and correlations that might be challenging for ESG or investment analysts to otherwise detect, thereby providing investors with valuable insights to make informed decisions.

Furthermore, AI can streamline the process by automating data collection[16] and using proxy indicators when data is inaccessible. The integration of AI not only expedites data collection and analysis but can also enhance the accuracy and reliability of risk identification. Investors can therefore achieve more

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12 Michael J. LaBella, Lily Sullivan, Josh Russell, and Dmitry Novikov, "The Devil is in the Details: The Divergence in ESG Data and Implications for Sustainable Investing," QS Investors, September 2019, https://qsinvestorsproduction.blob.core.windows.net/media/Default/PDF/The%20Devil%20is%20in%20the%20Details_Divergence%20in%20ESG%20Data.pdf.

13 Government of Australia, *Review of Australia's Modern Slavery Act 2018: Issues Paper* (Canberra: Government of Australia, 2023).

14 Brian Stauffer, "Obssessed with Audit Tools, Missing the Goal: Why Social Audits Can't Fix Labor Rights Abuses in Global Supply Chains," Human Rights Watch, 15 November 2022, https://www.hrw.org/report/2022/11/15/obsessed-audit-tools-missing-goal/why-social-audits-cant-fix-labor-rights-abuses.

15 "Global Slavery Index," Walk Free, last accessed 4 October 2023, https://www.walkfree.org/global-slavery-index/.

16 Gurpreet Johal and David Myers, *The New Physics of Financial Services Understanding how Artificial Intelligence is Transforming the Financial Ecosystem* (United Kingdom: Deloitte LLP, 2018).

robust and efficient risk assessments in their commitment to uphold human rights standards within their investment portfolios. This approach can help address one of the challenges Professor Young encountered in his analysis of modern slavery statements, which was fragmented data or disclosure data not being used in a collaborative manner. In this context, he recommended increased transparency of modern slavery data and employing AI tools to assess disclosures against best practice benchmarks and potentially rating companies on their anti-slavery practices.

For instance, since the seafood industry is a high-risk sector,[17] with evidence of unregistered workers experiencing forced labour, the Global Fishing Watch,[18] a partnership between Oceana, Google, and SkyTruth, employs machine learning and big data to identify when fishing boats disable their automatic identification system (AIS). AIS provides location data to authorities and nearby ships, and turning off location data can indicate unregulated activity like forced labour. Moreover, Global Fishing Watch uses satellite imagery and big data to monitor industrial sea activity, including fishing vessels and small-scale fishing boats, and makes this knowledge available in the public domain via the Open Ocean Project.[19]

The use of proxy indicators in the absence of forced labour data was of particular interest to roundtable participants. Altana,[20] which uses AI to build a dynamic intelligent map of the global supply chain, noted that data providers may use a few categories of risk data. Firstly, they can use data on whether a company has been barred from importing their goods due to forced labour incidents (known as a Withhold Release Order, WRO),[21] or a non-governmental organization (NGO) has shown proof that a company is using forced labour (known as direct deterministic risk).

AI can also potentially assess the relationships between a company identified in the previous category (direct deterministic) and their subsidiaries. This relationship might suggest a need for further investigation. For instance, AI can potentially determine the closeness of the link between a subsidiary and the main company, for example whether the subsidiary manages the export function, potentially enabling them to bypass

a WRO. Lastly, data providers may also evaluate proxy characteristics like the subsidiary's structure or actions to gauge how similar its operations are to a company with direct deterministic risk and assign a probabilistic risk score.[22]

In illustration of this, Rajib Saha of Parabole,[23] explained how AI tools can help understand the connections between different factors related to forced labour (known as causal inference mechanisms) to help mitigate decision errors in supply chain transparency and due diligence. Yet he cautioned about AI biases and errors in incomplete training data, discussed in the next section. This was also echoed by Professor Young who emphasized that, while there is a lot of data in the public domain, high quality training data for AI algorithms is needed. The causal approach emphasizes that even though limited or incomplete data can lead to biases, causal inference can reduce such biases by leveraging a broad knowledge base from a variety and diversity of sources.

Expediting Analysis of Modern Slavery Statements

Adriana Eufrosina-Bora, a PhD candidate at Queensland University of Technology, and Lead for Project AIMS (AI against Modern Slavery)[24] at Mila, described how Project AIMS is using natural language processing, a branch of AI and computational linguistics, to expedite the analysis of modern slavery statements in the UK and Australia (under their respective MSAs). Despite challenges such as extracting text from PDF documents and/or unreadable formats, and the absence of a centralized registry to collect data from, they found that scaling the use of AI can help accelerate analyses for investors. However, roundtable participants emphasized that modern slavery statements should not be solely relied upon for due diligence as they have several limitations, detailed above. Consequently, they are just one resource among others.

Adriana Eufrosina-Bora recommended that should regulators in jurisdictions with MSAs or HRDD legislation want to employ an AI tool to support their monitoring and compliance, they will first want to ensure the machine-readability of companies' statements and publication venues, and confirm whether private data should be incorporated. She emphasized the need to clearly define desired outputs, identify the metrics

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17 "Forced labour and human trafficking in fisheries," ILO, last accessed 4 October 2023, https://www.ilo.org/global/topics/forced-labour/policy-areas/fisheries/lang--en/index.htm#:~:text=A%20string%20of%20recent%20reports,abuse%20on%20board%20fishing%20vessels.

18 More information on Global Fishing Watch can be accessed at: https://globalfishingwatch.org/.

19 "Open Oceans Project," Global Fishing Watch, last accessed 4 October 2023, https://globalfishingwatch.org/open-ocean-project/.

20 More information on Altana can be accessed at: https://altana.ai/.

21 The US Customs and Border Protection implements Section 307 of the Tariff Act of 1930 (19 U.S.C. 1307) through issuance of Withhold Release Orders (WRO) and findings to prevent merchandise produced in whole or in part in a foreign country using forced labour from being imported into the United States.

22 A probabilistic risk score is a numerical value that represents the likelihood of a certain event or an outcome occurring based on statistical analysis and probability theory.

23 More information on Parabole can be accessed at: https://parabole.ai/.

24 More information on Project AIMS' modern slavery statements analysis can be accessed at: https://github.com/the-future-society/Project-AIMS-AI-against-Modern-Slavery.

the AI tool should focus on in modern slavery statements, clarify the intended audience of the AI tool and their capacity to utilize and maintain it (for example an ESG analyst versus a government employee), and address any ethical and privacy concerns.

What are the Considerations to Employ Safe and Ethical Use of Technology?

There are many risks to consider when using new technologies to monitor modern slavery risks, which can be mitigated through 'safety by design' practices. These safety practices should also become enshrined in law when deploying AI tools, and the following risks need to be considered by both AI users and designers:

- Utilizing and deploying AI tools, including open access ones like ChatGPT, carries **cybersecurity risks** since data can be intentionally or unintentionally leaked through data breaches or model training;
- **Privacy and anonymization** become particularly concerning when dealing with vulnerable populations. For instance, trafficking survivors have criticized[25] some tech providers for putting them at risk by failing to protect their privacy;
- Rajib Saha discussed the importance of ensuring diverse contributors to AI training data and models since AI tools can lead to **bias and error**, and potentially omit certain groups;
- **Marginalized groups** that are more likely to be discriminated against, stereotyped, or excluded from the benefits of AI are also those that are more likely to be victims of modern slavery;
- Persistent **gender gaps**[26] in smartphone ownership and overall mobile ownership are worrisome amid the world's increasing digital connectivity, especially as companies strive to amplify the voices of marginalized groups through technology;

- **Data access rights and permissions** are particularly significant for responsible collaboration, sharing, and ensuring anonymity, especially for data on marginalized groups and when accessed by entities from the Global South.

Focusing on Workers' Wellbeing and Outcomes

While employing AI can help streamline investors' HRDD, and strengthen workers' voices through AI tools and platforms, data alone cannot solve labour exploitation. To effectively promote workers' wellbeing, investors can engage survivors and workers, putting them at the heart of their company engagements and decision-making. For instance, investors can work in partnership with CSOs and worker rights organizations to identify red flags in company operations that AI cannot identify, and to understand effective remedial mechanisms. This engagement can hold companies accountable on issues like fair wages, working conditions, and freedom of association and collective bargaining.

Additionally, if investors and businesses use AI for data collection efforts, it's critical to ensure that the technology is not misused against workers and other affected communities in ways that may increase their vulnerability to modern slavery. This will require the inclusion of inbuilt safeguards and government regulation.

Moreover, while technology improves data transparency, investors should be cautious about making hasty divestment decisions based solely on this data. Divestment should be a last resort if company engagement does not work, as it can put vulnerable workers at more risk, prevent access to effective remedy, and lead to bifurcated supply chains (such as one 'transparent' supply chain for a jurisdiction with forced labour import bans and another for the rest of the world). Instead, investors can share data and best practices with their peers to genuinely enhance workers' wellbeing and drive meaningful change.

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25 Sabra Boyd, "How big tech and AI are putting trafficking survivors at risk," Open Democracy, 14 June 2023, https://www.opendemocracy.net/en/beyond-trafficking-and-slavery/how-big-tech-and-ai-are-putting-trafficking-survivors-at-risk/.

26 Nadia Jeffrie, *The Mobile Gender Gap Report* 2023 (GSMA, May 2023). Accessible at: https://www.gsma.com/r/wp-content/uploads/2023/07/The-Mobile-Gender-Gap-Report-2023.pdf?utm_source=website&utm_medium=download-button&utm_campaign=gender-gap-2023.

Recommendations

Investors:

- As new technologies emerge and regulators play catch up, it is recommended that investors form partnerships with data scientists, researchers, businesses, CSOs, and technology initiatives like Tech Against Trafficking[27] to learn more about the potential of AI and other technologies and the safeguards needed to address modern slavery;

- It's critical that investors meaningfully engage with CSOs to consider the adverse impacts of AI and other emerging technologies and how these adverse impacts can be mitigated;

- Investors can encourage investees to adopt innovative technologies that provide greater transparency and visibility on modern slavery risks in their entire value chains, taking into account the safeguarding that is necessary when introducing technologies.

Policymakers:

- As greater regulation and codification of ESG ratings is considered, policymakers should involve CSOs and incorporate safeguards and risk mitigation measures to protect victims and survivors of modern slavery while also allowing them to be identified;

- Policymakers should also support the ethical and well-designed deployments of new technologies, providing guidelines and forums for public-private dialogue on best practices.

Businesses:

- Businesses can use innovative technologies that provide regulators, investors, and CSOs with improved transparency and visibility on modern slavery risks in their value chains. These solutions must include safeguard measures to protect workers and vulnerable populations.

Technology firms:

- When designing AI tools, technology firms must intentionally incorporate safe and ethical principles to ensure safeguard measures are in place;

- Technology firms can actively collaborate with a diverse group of actors like researchers, businesses, investors, CSOs, and subject matter experts to ensure AI data models encompass more inclusive and representative datasets.

Researchers and research funders:

- More research is needed to understand the potential and limitations of using AI to aggregate and analyse data to support efforts to address modern slavery risks. Researchers can collaborate with the public and private sectors to conduct research and disseminate their findings.

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27 More information on Tech Against Trafficking can be found at: https://techagainsttrafficking.org/.