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### **What is the place of the general public in the new tech revolution?**

Rapid technological progress in **artificial intelligence (AI)** is about to transform existing business models. Companies are beginning to use AI to help manage their human resources, attract and promote the loyalty of clients and customers, and increase transparency in their supply chains. Companies are also using AI to automate decision-making processes about their employees, customers, and suppliers.

This process began with companies using big data analytics to increase transparency in supply chains and continued with companies using cloud-based systems and AI to process the enormous amount of data collected globally from thousands of workplaces. Efforts to develop AI and blockchain (<https://blog.sweetbridge.com/managing-supply-chains-on-the-blockchain-a-primer-1f7dc293e3d9?gi=8bee415e5b5a>) to improve supply chain traceability are still pretty new, and the focus so far has mainly been limited simply to ensuring that products can be traced from lower tiers of the supply chain to supermarket shelves. There are even fewer initiatives that focus on sustainability (<https://deepmind.com/blog/deepmind-ai-reduces-google-data-centre-cooling-bill-40/>), and these have largely been directed toward environmental sustainability (<https://www.eli.org/vibrant-environment-blog/environmentalism-next-machine-age>); so far, little attention has been paid to the potential of AI to address labor and human rights issues. However, it is clear that AI will have a real impact in these areas and that it will directly affect the existing relationships between corporations, their suppliers, workers, and customers.

Thus, AI can analyze a vast amount of data very quickly and offer a summary judgment that can be used to inform decision-making (<https://link.springer.com/article/10.1007/s13347-017-0263-5>). However, a primary concern in this context is the extent to which AI analysis can be relied upon to produce objective judgments (<https://link.springer.com/article/10.1007/s13347-017-0285-z>) that do not simply reproduce and legitimize existing discrimination or inequalities (<https://www.telegraph.co.uk/technology/2017/08/01/algorithms-future-must-not-allow-become-shield-injustice/>). This concern has prompted discussions about the accountability and transparency of algorithms. And there have been efforts to understand how to mitigate the potentially discriminatory and unfair decisions of algorithms in a range of important areas of life, such as, say, applying for a bank loan or seeking justice.

## Revolution for corporations?

Corporations are increasingly benefiting from digital expertise to manage their global production by tracking every move within the supply chain in real time. A companies' application of AI to their operations provides better visibility and predictability; however, these efforts don't yet incorporate human rights into their design at the moment.

As technology companies involved in the development of AI target global corporations as their clients, they don't necessarily focus on the interests and expectations of workers or local businesses. The use of AI to monitor production could massively increase the power of corporations vis-à-vis their suppliers and workers, resulting in the potential surveillance of workers by their employers. UNI Global Union's Future World of Work initiative offers 10 principles for ethical AI (<http://www.thefutureworldofwork.org/docs/10-principles-for-ethical-artificial-intelligence/>) and informs AI designers and companies of the importance of worker inclusion with the aim of safeguarding workers' interests and maintaining a healthy balance of power in workplaces.

In addition, if algorithms (focusing on visibility and traceability, based on real-time information, being received from thousands of workplaces operating in various countries) begin to manage suppliers in an increasingly competitive market, the constant comparison of different countries and workplaces to increase profits will likely increase the pressure on prices, delivery times, and productivity. This would create enormous stress and vulnerability for those suppliers. Local businesses (suppliers) would then transfer all that pressure onto their workers, who would be the real losers of the process.

The current mainstream business model, where companies seek to lower prices at any cost to be competitive, has caused "*a race to the bottom*" for their suppliers, who are generally located in the Global South, by increasing the productivity of the labor force and decreasing wages. This model (<https://www.ethicaltrade.org/blog/modern-slavery-and-child-labour-its-all-about-choice>) has intensified the exploitation of children through child labor, enabled instances of modern slavery, and undermined health and safety conditions.

As a result, unions and NGOs have taken many steps to support sustainable and fair business and increase respect for human rights in supply chains. Human rights due diligence, promoted by the UN's *Guiding Principles on Business and Human Rights* (<https://www.unglobalcompact.org/library/2>), is one expectation of companies as part of their responsibility to respect human rights. This approach allows all stakeholders to collaborate in order to determine the actual and potential risks that harm employees within a workplace or an industry. Instead of a one-sided decision-making process, this approach is action-oriented and calls on all parties to negotiate to address potential and actual risks and to resolve and mitigate the harm caused by them.

These models offer important lessons for companies utilizing AI to manage their relationships with suppliers and employees. If technology companies developing algorithms and training machines ignore all the accumulated experience in this field, they risk destroying existing relationships between global corporations, suppliers, and workers, and erasing human rights by offering unimaginable power to corporations.

The expected results of technological progress depend on users' approaches, and the use of AI to manage supply chains could have a positive impact. It is important that companies and civil society consider two questions:

- How can we teach machines about human rights and labor rights? (<http://www.siiia.net/Press/SIIA-Releases-Ethical-Principles-for-Artificial-Intelligence-and-Data-Analytics-with-Support-from-the-Future-of-Privacy-Forum-and-the-Information-Accountability-Foundation.>)
- How can suppliers and workers/trade unions influence the machine learning process? ([http://www.thefutureworldofwork.org/docs/10-principles-for-ethical-artificial-intelligence/.](http://www.thefutureworldofwork.org/docs/10-principles-for-ethical-artificial-intelligence/))

The answers to these two questions will determine the content of ethics by design. If AI internalizes accumulated knowledge about business and human rights and allows workers and local businesses to track its decision-making process, then it could promote labor rights (<https://www.bsr.org/our-insights/blog-view/remedy-against-the-machine-tech-and-human-rights>).

For instance, one of the demands of the UNI Global Union is that workers must have the right to access, influence, edit, and delete data that is collected on them via their work processes. Also, global trade unions and corporations should include the role of AI into their areas of collaboration. Additionally, multi-stakeholder initiatives that are alliances of global corporations, trade unions, and NGOs should pioneer this process to act as watchdogs for AI practices (<https://www.theguardian.com/technology/2017/jan/27/ai-artificial-intelligence-watchdog-needed-to-prevent-discriminatory-automated-decisions>).

A recent report by the House of Lords called *AI in the UK: ready, willing and able?* (<https://publications.parliament.uk/pa/ld201719/ldselect/ldai/100/100.pdf>, Chapter 2, page 58) states the following:

*"It is important that members of the public are aware of how and when artificial intelligence is being used to make decisions about them, and what implications this will have for them personally."*

### What about governments?

Over the last 2 years, many countries have released their official strategies on AI ([https://policyatmanchester.shorthandstories.com/on\\_ai\\_and\\_robotics/index.html](https://policyatmanchester.shorthandstories.com/on_ai_and_robotics/index.html)). This trend started with the US in 2016, followed by the United Kingdom (UK), Germany, France, the EU, Russia, Japan, China, and the United Arab Emirates (UAE).

These official strategies have many issues in common ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/652097/Growing\\_the\\_artificial\\_intelligence\\_industry\\_in\\_the\\_UK.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/652097/Growing_the_artificial_intelligence_industry_in_the_UK.pdf)). However, they also focus on specific aspects of the technological revolution based on their comparative advantages (<https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/6%252520Overview%252520of%252520current%252520action%252520Grow.pdf>). For instance, the US places more importance on data-driven innovation; the UK concentrates on the financial sector and health services; Germany focuses on manufacturing, including smart factories and autonomous cars (also known as **Industry 4.0**); Japan aims to improve robotics; and UAE deals with AI in the public sector. Russia and China pay more attention to domestic surveillance and strengthening their military capacities.

One shared concern of these official documents is the fear of *missing the boat* as technological progress brings rapid changes in society that are likely to directly affect the global balance of power, military strength, economic wealth, and social structures (<https://researchbriefings.parliament.uk/ResearchBriefing/Summary/POST-PB-0027>).

For example, in the review of the UK's official strategy ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/652097/Growing\\_the\\_artificial\\_intelligence\\_industry\\_in\\_the\\_UK.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/652097/Growing_the_artificial_intelligence_industry_in_the_UK.pdf)), Wendy Hall and Jérôme Pesenti define this concern in terms of not being dominated by other countries. The solution also suggests a desire to dominate other countries, by taking advantage of leadership in the new technological revolution, and such an approach does not include any regulations or references to human and labor rights.

Thus, all these global powers focus on the areas in which they have a comparative advantage so as not to lose their superiority, or permit others to overtake them in these areas—with little regard to the human rights risks of these actions.

The common features (<https://royalsociety.org/~media/policy/projects/data-governance/data-management-governance.pdf>) of these strategies suggest close cooperation between state, industry, and academia. For instance, states have all pledged to allocate billions of dollars in future investments and research projects on AI, and have offered substantial incentives both for global corporations and start-ups to invest in their countries. They are also encouraging universities to open new departments and research centers dealing with different aspects of the technological revolution and create new PhD and post-doc positions to attract the world's best brains.

In addition, authorities have promised to take the necessary measures to adapt the workforce to changing conditions, upgrade skills, and develop a curriculum for students to prepare themselves for dramatic changes in the labor market. Multi-stakeholder AI commissions ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/702810/180425\\_BEIS\\_AI\\_Sector\\_Deal\\_\\_4\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/702810/180425_BEIS_AI_Sector_Deal__4_.pdf)) are formed to audit and monitor the process and deal with the expectations of stakeholders on a day-to-day basis. Since data is crucial for the development and training of algorithms, national data centers/trusts ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/702810/180425\\_BEIS\\_AI\\_Sector\\_Deal\\_\\_4\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/702810/180425_BEIS_AI_Sector_Deal__4_.pdf)) are in the process of forming in order to verify and share data with stakeholders and prevent competitor states from accessing and manipulating the process.

The weakest side of these strategy documents is an inability to suggest any clear approach to the different sections of society, primarily workers and small and medium-sized enterprises. These strategies contain short sections regarding ethical concerns, but they are generally abstract, repeating similar concepts such as accountability, transparency, and complying with ethical rules. But official strategies should go beyond these wishes.

A clear approach to working with different stakeholders is crucial because governments are allocating millions of dollars to promoting AI systems and the planned actions listed will be conducted through close cooperation between corporations, universities, and states without any clear, legally binding ethical and social principles. For instance, what are the social and ethical preconditions and review processes for corporations to receive this government funding for developing AI systems? Without clearly mentioning legal requirements for accessing funding and for auditing processes, terms such as *being people-centered* and *worker-friendly technological progress* will remain wishful thinking.

In addition, while the strategies touch on the potential for AI systems to promote economic growth and wealth, there is no mention of fair income distribution. Some of these documents stress ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/702810/180425\\_BEIS\\_AI\\_Sector\\_Deal\\_\\_4\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/702810/180425_BEIS_AI_Sector_Deal__4_.pdf)) that SMEs will have access to good quality data and benefit from the services and research findings of universities to promote their businesses, and that necessary measures will be taken to avoid unemployment (<https://www.ijhrdppr.com/book-review-martin-ford-rise-robots-technology-threat-mass-unemployment/>) through career support and skills training for people who are employed in jobs that are at risk ([http://www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs.pdf](http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf)). Finding jobs to avoid unemployment is important, but there is no mention of labor rights or decent working conditions. What kind of employment (<https://theconversation.com/automation-robots-and-the-end-of-work-myth-89619>) will be promoted (<https://arxiv.org/pdf/1802.07228.pdf>): short-term, self-employed, precarious working conditions, or decent working conditions with a living wage, freedom of association, and the right to bargain collectively?

So, the common approach of these strategy documents and guidelines on employees and SMEs could be defined as *wait and see*. It is clear that the consequences of the technological revolution (<https://www.brookings.edu/blog/brookings-now/2018/05/23/artificial-intelligence-will-disrupt-the-future-of-work-are-we-ready/>) cannot be fully determined or even imagined yet, so this might mean we are stuck with general concepts and wishes. On the other hand, policy-makers could set out a clearer, more detailed approach. There is already extensive literature on the gig economy, the ethics of AI (<https://www.openglobalrights.org/as-artificial-intelligence-progresses-what-does-real-responsibility-look-like/>), and debates on protecting people from discriminatory decisions made by algorithms in human resources (<https://www.openglobalrights.org/artificial-intelligence-can-be-a-boon-for-businesses-but-can-it-protect-workers/>), supply chain management, the judiciary, and the police. This is not only a debate about the future of work and society; it is a process that we are already living through and experiencing, making it imperative that new and ongoing debates, concerns, and demands be considered.

These government strategies set out the expectations and interests of large corporations (<https://theconversation.com/automation-robots-and-the-end-of-work-myth-89619>) and reflect a states' political, economic, and military strategies. However, AI strategies should not only reflect existing competitions, rivalries, and the future strategies of corporations and states. Members of society more broadly should have a say in what kind of future they would like to live in and how they would like to benefit from the technological revolution.

Therefore, at the dawn of a new technological revolution that is set to transform global supply chain management, it's high time we launch a debate about the role of AI in industrial relations. This is not just in order to stay true to the creed, that is, ethics by design (<https://www.bsr.org/our-insights/blog-view/human-rights-by-design>), but also as a requirement of innovation. Debate will help us evaluate and develop existing approaches, such as human rights due diligence, as promoted by the UN Guiding Principles on Business and Human Rights, so we can continue to make progress in this area. In this way, all social partners—including employers, workers, and other related entities, such as NGOs or state authorities—will have greater scope to collaborate in order to assess current and potential risks to employees within the workplace and take steps to mitigate them.

**Who is Emre Eren Korkmaz?**

As an academic at the University of Oxford, my research and consultancy areas cover new technologies (AI and blockchain) and international development with a focus on sustainability and human rights due diligence in the global supply chain, business and human rights, modern slavery and forced labor, and the decent employment of migrants and refugees.

I have worked as a consultant for various companies and NGOs, and initiatives such as the Ethical Trading Initiative, the Business and Human Rights Resource Centre, the Fair Wear Foundation, Amfori, and Anti-Slavery International on the decent employment of refugees and immigrants (particularly Syrian refugees in the Turkish garment supply chain of global corporations) and modern slavery issues.

I have been invited to many events of various industry stakeholders and organizations, such as the OECD, ILO, EU, BSR, and Amfori to deliver keynote speeches and training.

## **Robin Wright**

Chief Architect, Cybersecurity, Microsoft

**What was your career in before making the switch to cybersecurity?**

My career has always involved some form of security and I have evolved as the industry has evolved. My career in IT security has spanned 34 years and has followed a natural interest and passion in the area.