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Shaping society 5.0 Building trust in AI as a force for good

Harnessing the emerging power of
AI to strengthen supply chains and
help eradicate modern slavery

Foreword



**By Harold Pradal,
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2023 will be viewed as the point that Artificial Intelligence (AI) tipped into the mainstream, with a 286% rise in media coverage of the topic¹. And whilst headlines were grabbed by ChatGPT, the real AI story is much, much deeper.

This transformational technology is accelerating progress – and has the potential to go further as a force for good and move us towards Society 5.0, a ‘human-centered society that balances economic and technological advancement to solve society’s problems’². Importantly, it also raises questions around how we build trust in AI and what guardrails are needed to ensure AI shapes our future in a positive way.

In this collection we go behind the headlines to explore the real-world impact of AI through the eyes of BSI experts, drawing on the views of 10,000 people in nine countries. For anyone in doubt, AI is here and it’s here to stay – 38% of people use AI in their jobs daily, rising to 70% in China and 64% in India. By 2030, 62% expect their industry will use AI³.

At BSI we are committed to shaping the impact of technology and innovation for the benefit of individuals, organizations and society. AI sits at the heart of this because it has the potential to be a powerful partner, changing lives and accelerating progress towards a better future and a sustainable world.

We commissioned these essays to turn the spotlight on this generational opportunity – recognizing that the better we understand it, the better we can harness its power. Whether it’s creating new workplace opportunities, improving patient outcomes, tackling modern slavery or building a safe global food system, AI has a pivotal role to play.

We examine the importance of embedding digital trust in AI, the critical role for collaboration – between nations, policymakers, organizations and individuals – to unlock AI’s true potential, and the fast-evolving regulation designed to ensure consistency and certainty.

With AI crossing over from small, contained environments into mainstream technology at work and at home, this offers a transformational opportunity to unlock a multitude of benefits – provided trust and confidence are present too.

AI is just getting started. At BSI we are excited to partner with our clients as we embark on this journey. We are delighted to present these essays to explore the enormous potential AI offers to shape Society 5.0 and deliver a sustainable future powered by innovation.

1. Signal search analysis 2022-2023.
2. Society 5.0: The Fundamental Concept Of A Human-Centered Society, Open Business Council, Aug 2023
3. BSI Trust in AI Poll 2023



Harnessing the emerging power of AI to strengthen supply chains and help eradicate modern slavery

As a purpose-driven organization, BSI believes AI can be a force for good, changing lives, making a positive impact on society and accelerating progress towards a better society and a sustainable world. In this essay, Tony Pelli, Practice Director – Security and Resilience, looks at how AI can shape stronger supply chains and support progress on a key societal issue – the eradication of modern slavery. This follows the launch of BSI’s pioneering modern slavery standard in October 2022.





By Tony Pelli

Practice Director, Security and Resilience, BSI

- Modern slavery is at the very heart of global supply chain risk – but AI has the potential to make a real impact if combined with human evaluation.
- Potential benefits for organizations include transparent processes, improved procurement and sourcing decisions, potential cost savings, increased traceability and continuous assurance.
- In 2023, AI is just getting started – there is so much more it can deliver.

One of America’s founding fathers Benjamin Franklin famously said: “Nothing is certain except death and taxes”. In recent years you could credibly add supply chain disruption to this list. As set out in [BSI’s 2023 Supply Chain Risk Insights report](#), ‘the only certainty is uncertainty’. With a global pandemic, climate change and geopolitical uncertainty, supply chain disruption has been a constant feature of international trade throughout a volatile decade.

Another major challenge for supply chains – and society – is to effectively address the issue of modern slavery. Modern slavery describes a range of exploitative practices including slavery, forced or compulsory labour, debt bondage and human trafficking. It is estimated¹ that there are 49.6 million victims worldwide, with 27.6 million said to be exploited through forced labour. At BSI we recently launched a [new standard on modern slavery](#) to help organizations drive progress and meet the UN Sustainable Development Goal of eradicating forced labour.

Modern slavery is much more than merely a corporate risk. It represents a serious violation of fundamental human rights. Every organization has responsibility to its stakeholders and to society to ensure it is not exposed to modern slavery and to take steps where appropriate to stamp it out. But with complex supply chains, this can be a challenge.

So how might technology advancements have a positive impact, shaping a future in which supply chains can better manage disruption and act with purpose to tackle societal issues like modern slavery?

The AI opportunity

Step forward the emerging power of AI, which in BSI's Trust in AI Poll² nearly one in five people globally specifically said should be used to help ensure transparent supply chains and help to eradicate modern slavery. What's become increasingly clear³ is that organizations are starting to wake up to the potential AI has to be a force for good in supply chain operations.

The sheer scale and complexity of the global supply chain means that processing all the accompanying data at speed is a task arguably beyond the realms of human capacity. That means, from carriers to factories and manufacturers and vice versa, there's a huge role for industry to partner with AI to accelerate and improve supply chain operations.

And we're on the way. A 2021 study from McKinsey⁴ calculates that AI-enabled supply-chain management has enabled adopters to improve logistics costs by 15%, inventory levels by 35%, and service levels by 65%. In the two years since, the power and adoption of AI across the world has only expanded.



18%



of people specifically prioritized using AI to help ensure transparent supply chains and eradicate modern slavery by 2050.



Modern Slavery in 2023

As part of this, although we are only at the beginning, we are now starting to see discussion of the opportunity presented by AI to address modern slavery⁵ in supply chains. It's heartening that new technology is poised to help us finally solve an age-old problem.

It's instructive to remember that modern slavery is a wide-ranging issue that manifests itself in multiple ways. One recurring theme can involve labour trafficking⁶ from one country to another – in these cases, people find themselves surrendering their passport, owing labour broker fees, and potentially not being paid or able to leave the country.

These scenarios are prevalent in a number of sectors⁷ – manufacturing and fishing, for example – and certain regions, but as Anjali Mazumder, an expert in AI and human rights at The Alan Turing Institute, has set out, across the board, AI has the potential⁸ to help organizations detect forced labour issues. This includes tracing back through detailed and complex supply chains and connected purchase orders far quicker than humans ever could.

These paper trails may involve second or third tier suppliers, a volume of data that AI has the ability to speedily analyze in conjunction with other information such as customs declarations, to paint an even more detailed picture.

An example of this is underway in the Amazon⁹, where Stanford researchers are using AI to look at satellite imaging in order to identify forced labour at deforestation sites. Michael Baiocchi, from the project, says AI algorithms “can monitor this relentlessly”, but notes that the traffickers will likely get wise to this so they will need to ‘keep searching for new patterns’.

In this case, and generally, the AI can only do part of the job. It's critical that this information is then processed by humans who can filter it and understand where to focus their efforts to address the root cause. But what's promising is that AI mapping has the potential to unlock serious issues that may otherwise have gone undetected.

AI in action

To understand more about the opportunity, I spoke to Matt Friedman, Chief Executive of the Mekong Club¹⁰, which works to bring about sustainable practices against modern slavery.

As Matt explains, “AI can analyze information that would take 12 people six months to review in only a matter of minutes”. It can also identify patterns – for example by tracking phone numbers, names and phrases used on websites associated with human trafficking. “This allows law enforcement officials to determine if syndicates or gangs are involved.”

He shared how AI is being used in countries including the US to undertake facial recognition to identify trafficking victims¹¹. “Photos of teenage runaways are taken and AI is used to add a year or two to them. This revised photo is then compared to websites that promote prostitution. If a match is found, local law enforcement is identified.”

AI can also be used by banks or financial institutions to identify trafficking¹². “Banks can identify typologies that outline how a crime unfolds and what are the transactions at different steps,” explains Friedman. “A percentage of these transactions can be identified as potential red flags... if these red flags are packaged and run against big data (using AI), potential criminal activities can be identified and addressed.”





It's AI and humans, not AI or humans

Friedman stresses the benefit comes from diminishing human error. "Human beings can get tired and bored when tracking patterns... this can lead to mistakes and omissions. AI can do this much more efficiently."

Understanding both the power and limitations of AI is the key to unlocking its potential for smoother supply chains. At the same time, AI is not always perfectly trained. It could for example, 'over-identify' forced labour which may lead to organizations cutting off suppliers. This is where a human eye and due diligence is essential to a successful process.

In BSI's poll, 77% said complete or at least some level of trust is needed for AI to be used to enable ethical supply chain management. The critical point is that when it comes to addressing modern slavery, or any other supply chain issue, AI alone is not the answer – it's part of the answer.

The opportunity is for AI to complement human efforts, not replace them, by helping organizations quickly identify signs of forced labour, possible delays, or other risks, then take effective measures to resolve these issues quickly. A key benefit of AI accelerating investigations into disruptions could also free up resource to focus on other critical operations. Both could pave the way for more ethical or less risky procurement and sourcing decisions, with a positive overall impact on operations.

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Tony Pelli



Ongoing not one-off

Modern slavery and forced labour investigations in supply chains are just one area where there is the potential for AI be a force for good, helping to strengthen supply chain management. As BSI's research has found, improved self-knowledge is the key to better supply chain understanding. Making supply chain risk management an ongoing process, not a yearly audit, can ensure that emerging challenges are addressed when they arise.

With AI support, organizations can be more confident that forced labour is not creeping into their operations between assessments – and more generally they can unlock huge benefits to managing risks in their supply chain.

Find out more

BSI recently published a [standard](#) to help organizations eradicate modern slavery in all forms (BS 25700 Organizational Responses to Modern Slavery). BSI also provides other services to support risk-free supply chains. Find out more about our work in this area [here](#).

References

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- 3 [Industry 4.0: How Smart Technology is Revolutionizing the Supply Chain](#), Amplyfi, June 2023
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