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The Quantified Organization
Policy considerations for businesses

Global Public Policy | Global Human Capital

Foreword

The world of work is rapidly changing. Technological advances in fields like automation and Artificial Intelligence (AI) are increasingly integrated into business operations around the world, evolving business models, practices and ways of doing business. Technology continues to change the role of workers, job types, workplace activities, processes, and management approaches, as well as creating new jobs. This evolution presents governments with the prospect of higher economic growth and improved domestic possibilities for society, spurred on by productivity improvements. However, this is not without risk, and governments are considering the costs to workers and society.

This paper aims to addresses the impacts that AI and technology have on the changing dynamics of passive data collection in the workplace and explores the corresponding policy implications and considerations for the private and public sectors. It discusses various potential approaches for businesses to effectively manage and influence the changing policy landscape, to maximize the positive impacts of this technological revolution, while protecting workers and society, preserving existing rights, and fostering positive workplace environments. There are diverse perspectives on the road to best practice; some have advocated for the benefits that data collection and analysis will have on workplace health and safety, production, workplaces, and productivity in general. Others have called for caution over concerns that passive data collection may degrade the privacy of workers, workplace data protection, the mental and physical health of workers, and workplace anti-discriminatory efforts.

Across the global policy landscape, there are various interconnected laws and regulations which, are currently lagging the continually evolving landscape of workplace data collection practices. In many parts of the world, patchworks of laws are being used to plug the gaps. Examples of this include a mixture of laws covering data privacy and security, industrial relations, workplace health and safety, antidiscrimination and bias, and equal opportunity, among many others. Policymakers are weighing the need for regulatory and policy improvements, with the need for entirely new laws and refreshed government oversight.

This paper looks to provide further insight into the policy landscape of various markets and expands on important policy considerations, for the benefit of businesses, workers, and governments. The policy considerations in this paper are drawn from Deloitte Global's perspective of the need for clear principles in the regulation of AI; a longstanding perspective which has been at the foundation of numerous frameworks and methodologies, such as: the "Future of Regulation" framework, the "Trustworthy AI" framework, the "Deloitte Trust Platform", and the "Technology, Trust, Ethics" framework. The paper also highlights the differences in policy responses across markets, reflecting different social and business cultures, and the importance of international cooperation.

The pace of workplace change with technological advancement places an urgency on policy makers and contributors to act. The sooner the ecosystem is robust enough to allow business to continue to innovate and to protect workers, the sooner the benefits of productivity and economic growth can be realized across society.

For more information on passive workplace data collection see the recent Deloitte report, Beyond Productivity: The journey to the quantified organization.

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Introduction

As technology uptake continues to rapidly advance within businesses, automation, and new tools such as Artificial Intelligence (AI) and wearable trackers, are transforming the way that workers and workplaces operate. By enabling organizations to collect data about workers and work patterns, these tools have the analytical power to transform data into insights and actions, as well as informing human judgement.[2] This could help drive innovation, productivity, and create positive workplace experiences, outcomes, and performance.

There has been a lot of public discussion around how best to maximize the opportunities and manage the risks as workforce and workplace data gathering continues to accelerate. Much of the discourse focusses on how best to facilitate innovation, industrial development, and economic growth, while creating the right environment so that workers and society are not unduly disadvantaged.

Key stakeholders from government, business and society are reviewing the adequacy of existing laws and guidance, which cover various policy areas such as innovation, industry, worker and employer rights, the ethical use of data, responsible development and use of AI, occupational health and safety, data privacy, and fundamental rights and freedoms. This paper discusses some of the key considerations around building robust policies to create the best outcomes for business, workers, and society, and notes the role that business can play in shaping desirable outcomes.

What is a "Quantified Organization" approach to workplace data collection?

A quantified organization takes a strategic approach to measuring what it should, not just what it can. It takes a responsible approach to using new data sources and AI tools to create value for stakeholders across the organization, improving workforce trust and driving the organization forward to new levels of financial, reputational, and operational performance.

By focusing on how to create value, Deloitte's quantified organization model can magnify an organization's impact while strengthening its long-term position.[1]

Data collection at work

There is consistent growth in the collection of workplace data, with an upsurge during the COVID-19 pandemic, as business undertook to understand and facilitate new ways of working.[3] A recent Deloitte Global report, [Beyond Productivity: The journey to the quantified organization](#) provides insight into the ways in which passive data is being collected while workers work. Passive data collection is the gathering of data which often takes place without workers having to actively contribute, for example data that is collected as workers work, such as using cookies on a laptop browser, workplace communications tools, sensors that measure activity on a factory floor or augmented reality headsets. In North America alone, average data volumes in organizations grow 63% each month, and organizations collect passive data from an average of 400 different sources in day-to-day operations—computers, smart phones, websites, social media networks and more. According to Top10VPN, citing studies from MIT, employee monitoring software demand has been 49% higher on average since the start of 2023 than in 2019.[4]

While the concept of collecting data on workers has been around for centuries,[5] advances in technology, analytics and sensing software have significantly improved the method of data collection, the amount and different types of data being collected and how it is analyzed. The *Beyond Productivity* report discusses the ways that passive data collection can be a tool to better inform decisions about work and workers, presenting an opportunity for organizations to better understand how the work gets done including worker and work patterns. The report also promotes a responsible approach to using new sources of data. If obtained and used appropriately, data collection can further help businesses improve workplace trust and create better workplaces and value, leading to fairer outcomes for workers as well as the introduction of safer work practices.[6]

Perspective from the International Organisation of Employers

The International Organisation of Employers (IOE) represents businesses in human rights, social and employment policy debates that take place in the International Labour Organization (ILO), as well as across the United Nations, G20 and other forums. It is the largest network of private sector businesses in the world, with more than 150 member organizations.[7] According to the IOE, workplace data collection can positively impact innovation, improve work practices and worker productivity.[8] In today's modern economy, it can also help address matters like tax and social security contributions avoidance in the case of platform workers.[9] On the flip side, the matter of workplace data collection is challenging businesses to adapt data collection tools to suit various work types. Over time, IOE has observed that businesses are aware of the nuances in using AI, and the challenges it can represent, such as bias generation, privacy and human rights concerns, AI hallucinations, and AI creating outcomes that are not transparent, are inexplicable or are unquestioned by the user.[10] Though this can unfairly impact workers and businesses, if addressed, it can build worker trust at a time of global labor shortages.

Recently, Deloitte Global Public Policy interviewed Renate Hornung-Draus, Managing Director of Economics and International Affairs at the BDA (Confederation of German Employers) and Vice President for ILO matters of the IOE. She draws parallels between todays' AI led experience and the 'planned economy' industrial developments of the past. Both contain the risk of setting incentives for behavior that is not adapted to the needs of the business or the market. For example, looking to the past, if the market demanded more screws, a factory would set a new production target. To achieve this target, the factory could reduce the size of the screws to meet demand. However, in doing so, the factory would not be delivering to market needs. Today's use of productivity indicators and quantitative target tracking to change worker behavior has similar risk potential. According to Hornung-Draus, "when collecting data against established quantitative indicators, the type of work has to be considered. AI-led tools can help drive productivity for routine and manual work. However, adapting this model to less routine and problem-solving work types is challenging. Even in more routine areas, the application of AI-led data collection should be balanced." In Germany, for example, workers at an electronic car manufacturing plant that is utilizing AI data collection and analysis, are taking action against their production rhythm targets being set too high and being given insufficient break times. These are fundamental workplace health and safety concerns.
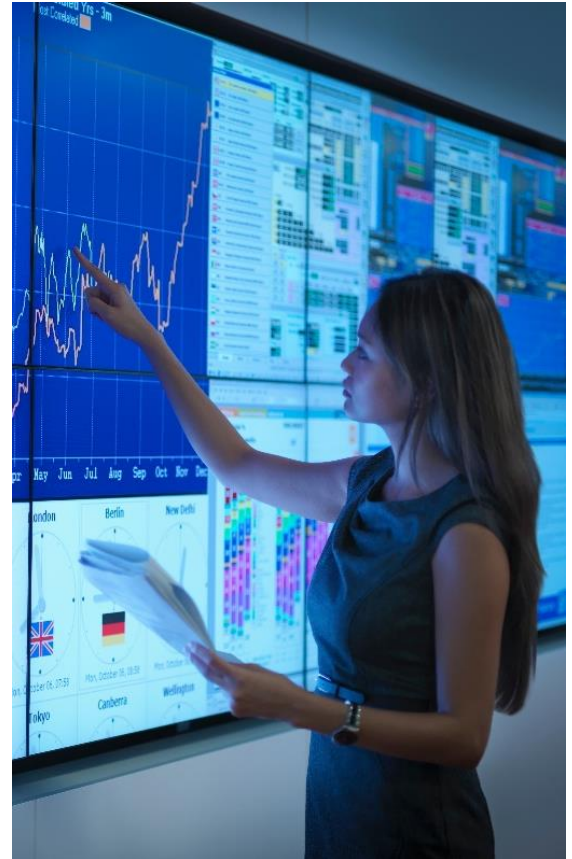
Given AI is now a common feature of workforce data collection, including generative AI, the IOE says that employers are aware that the systems they use are only as good as the designers.[11] Poor systems and poor system use can generate distrust amongst workers that business cannot afford. There is a need for organizations to look carefully at the design elements and work closely with their technology providers. Hornung-Draus refers to the importance of avoiding the "Michael Polanyi Paradox", i.e., the danger of trusting information or knowledge that seems inexplicable—in this case derived from generative AI. So, if workers and businesses obtain results that are generated by AI, it is important for them to question if the outcome makes sense given what they know and see; to not use the data verbatim, without conducting due diligence. Conversely, excessive human interference with the variables used by AI can generate bias, nudging towards predetermined outcomes.

Workforce data collection driven by technological advancement is at the forefront of industrial digital transformation. Public policy considerations at the center of this transformation include ethics, trust, occupational health and safety, and privacy. Given the global nature of business, including data flows, global interconnectedness is also a discussion point for policymakers and businesses alike. Business can play a valuable role in informing policy outcomes, and developing systems and processes to be compliant across what will be a more complex and changing national and global landscape.

Looking ahead Hornung-Draus sees increased compliance requirements across the abovementioned policy areas, new and updated standards, tools, frameworks, principles, and codes of practice/conduct to ensure data capture and use is reasonable, safe, and responsibly managed.[12] Governments are looking to drive improved work practices and outcomes associated with increased data collection, without creating or exacerbating inequity and bias and or poor wellbeing; all of which can have adverse personal, economic and social impact.

How can business practices influence public policy outcomes?

Public policy development covering workplace data collection aims to balance protecting societal interests with organizational interests, by using these technologies and new sources of data to unlock organizational and workforce performance and productivity, while also enhancing worker and workplace experiences and societal well-being. While the matters associated with policy development in this space are broad, three key categories are critical to determining the mix of policy outcomes that will emerge across markets: ethics, transparency and trust, occupational health and safety, and privacy. Careful consideration of these matters by business, government, civil society, and workers, will likely shape the course of policy development and outcomes. The following sections provide more detail on responsible business considerations regarding data collection.

Ethics, transparency and trust

Ethics and trust between the business and its workers is fundamental to responsible use of worker and workplace data. Trust and ethics, once eroded, can be challenging to rebuild, making it crucial for businesses to maintain a transparent and respectful work environment for their workers. Fundamentally, a lack of transparency, a limited understanding of the "how", "when" and "why" of workplace data collection, and a loss of worker agency can lead to mistrust amongst workers, when confronted with the realities of workplace data collection programs.[14] A further study by Deloitte US for the development of the *Technology Trust Ethics Framework*, showed that between 2022 and 2023 transparency remains a concern for survey respondents, and accountability has grown as a concern, up 3%.[15]

According to a Gartner study, workers reported being more comfortable with the idea of workplace data collection, when the employer shared more information about exactly what data they would be collecting and why.[16] Indeed, transparency is highly valuable in the pursuit of a quantified organization.[17] Providing a right to transparency and accessibility (of how data is used and analyzed), and knowing there is a right of redress, can also help to build trust.

"Efforts to collect passive and active work and workforce data are increasingly being subject to conflicting jurisdictions and geographies such as the impact of GDPR in Europe. Thus, it is becoming critical to ensure compliance and consent to enable use of this data. For instance, the use of AI tools for hiring and promotion in the United States should take into consideration Title VII as well as other local requirements such as a law in New York City that requires these algorithms to be audited for biases and fairness. This shifting regulatory landscape highlights the importance of working closely with legal and human resources teams to navigate ongoing compliance."[13]

Fundamentally, building and maintaining trust is the responsibility of the data collectors, holders, and users—the business. To build trust, business should act on what is right, proper, and moral—and ensure technologies are used in ways that respect workers' rights, foster a positive work environment, and maintain fairness. When workers believe their privacy and rights are protected, they feel respected by their employers. Trust in the use of data collection alleviates concerns about invasion of privacy and biased decision-making. Transparency about data collection practices fosters open communication and accountability, encouraging voluntary cooperation and participation. Workers who trust that their contributions are used responsibly are more likely to embrace these technologies for their professional growth and organizational success. In essence, ethics and trust provide the foundation for integrating data collection software and AI to empower both workers and organizations while preserving dignity, fairness, and transparency. Responsible businesses will consider these impacts in designing their workplaces and inform public policy development.

Occupational Health and Safety (OHS): Impacts on mental health and overwork

Occupational health and safety laws are currently in place around the world to protect the physical and mental well-being of workers, to which workplace data collection adds another dimension. There is considerable debate and research into the impact of worker and workplace data collection on the health, wellbeing, and safety of workers, with clear pros and cons.

AI and workplace data collection have demonstrated the potential to enhance safety and worker well-being. In a 2019 report by the Australian National Heavy Vehicle Regulator, for example, participating truck and heavy vehicle drivers believed that fatigue and distraction detection technology could significantly reduce dangerous and hazardous road incidents while driving, ultimately improving industry safety.[18] A 2021 *Science Direct* paper, further argues that "a system thinking workplace road safety surveillance system has the capacity to facilitate the review and revision of current risk controls and allow the design of targeted safety interventions to improve the safety of people who drive a vehicle for work."[19]

In the realm of physical ergonomics, wearable sensors and artificial intelligence have ushered in a new era, expanding the scope of ergonomic evaluation and design. The article *Wearable Sensors and Artificial Intelligence for Physical Ergonomics: A Systematic Review of Literature* explains that "... the data detectable through sensors can enrich the value of the ergonomic intervention of evaluation and design, attracting interest also on aspects properly investigated by other disciplines, such as engineering, psychological, organizational, medical, but also economic ones."[20] These exemplify the potential positive workplace health and safety outcomes in the age of workplace data collection.

However, a study published in *Harvard Business Review* suggested that while monitoring software can deter certain undesirable behaviors, it can also lead to unintended consequences, such as potentially increasing rule-breaking among employees.[21] Similarly, in Australia, the unintended consequences of workplace data collection have resulted in 49% of workers feeling they need to 'overcompensate' when working remotely, to show they are serious about their work.[22] A further study by the American Psychological Association reported that 56% of workers who experience monitoring by their employer typically feel tense or stressed out at work.[23]

In platform-based and non-office-based roles, such as taxi and rideshare drivers, the challenges of data collection can be intensified. For example, delivery gig workers are held accountable for their speed, number of deliveries per hour, and customer rankings in an intensified environment that has been proven to create OSH risks.[24] Due to the use of digitalized tools, some drivers and riders are at risk of deactivation from apps, if their customer rankings are not high enough, or they do not meet other requirements. This perceived lack of privacy and autonomy results in OHS risks, including unfair treatment, stress, and even fear.[25]

Digitizing nonstandard work such as home-based online gig work, and taxi and delivery services in offline gig work, is a method of workplace and performance tracking that is based on the quantification of tasks at a minute, granular level, where only explicit contact time is in fact paid for.[26] Digitization in these roles may appear to formalize and streamline the administrative and organizational burdens faced by employers, however, the risk of underemployment and underpay is real.[27]

While there are challenges, there is also a growing opportunity for business to proactively identify emerging OHS risks and use worker data to provide learning opportunities and culture change within workplaces. In fact, the *"Quantified Organization"* model suggests that data collection can be used to help workers learn and grow.[28] An example of using passive data collection to improve OHS experiences and outputs for workers is BMW's "iFactory".[29] In 2023, BMW established the BMW iFactory—a digital, virtual replica of one of their car manufacturing factories in Hungary, using simulation, metaverse, cloud computing and AI technologies. Within the virtual reality recreation of their factory BMW could observe worker patterns, OHS compliance, worker performance, worker experience and factory floor operations, to learn from, and create more productive factory outputs.[30]
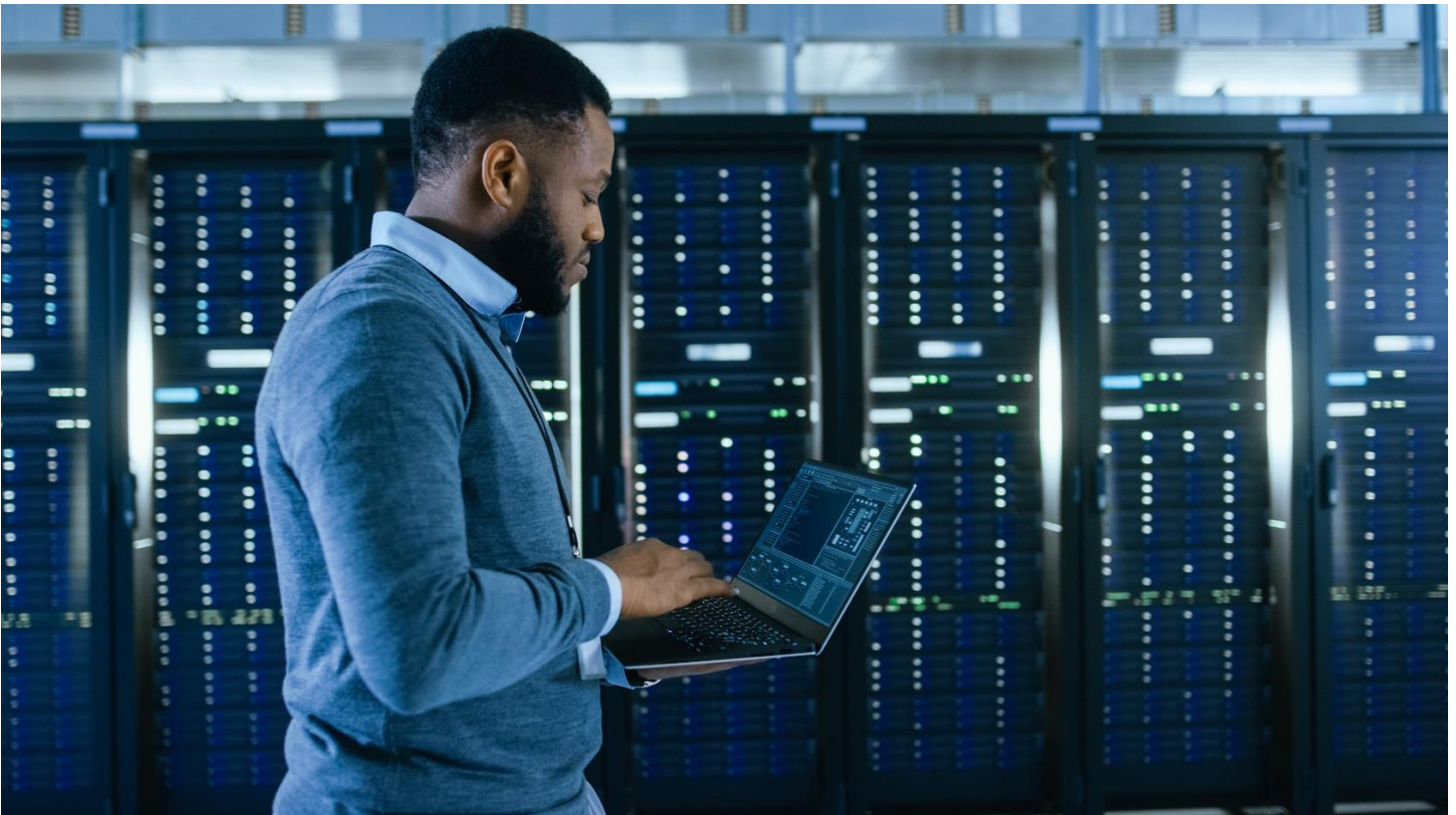
Privacy in the age of data collection & AI

The surge in data acquisition brings to the forefront crucial questions surrounding worker privacy, including around the definition of 'reasonable limits' to private data collection and storage. Businesses grapple with determining the amount and types of data to collect, specifying their purposes, and outlining secure storage protocols. The integration of AI further amplifies these privacy concerns. The effectiveness of AI outputs hinges on the quality of underlying algorithmic models and actual data collected. This prompts a critical inquiry into how organizations should assess the data required for AI-driven data collection endeavors. Leveraging open public data sources to bolster the reliability of AI systems and tagging data with appropriate use cases has gained traction within workplace operations, so that data can be harnessed exclusively within suitable contexts.

Determining the boundaries of acceptable practices becomes another pivotal facet of privacy deliberations. Defining what constitutes the workplace, especially when considering non-work-related activities such information collected by a work phone outside of working hours, or the monitoring of social media, is being carefully considered by stakeholders. Striking a balance that respects workers' privacy while safeguarding organizational interests is intricate but indispensable.

Moreover, implementing stringent data collection and protection measures is essential to thwart unauthorized access and utilization, and potential misuse of collected data. Safeguarding individuals' sensitive information is not only ethically imperative but also legally mandated in many jurisdictions. More and more organizations see data protection as a top priority.[31] They are being proactive in addressing privacy, taking initiative to establish comprehensive safeguards, and being attuned to evolving privacy regulations. Finding harmony between organizational goals and individuals' privacy and workers' rights necessitates meticulous planning, proactive communication, and robust data protection measures. By navigating these challenges effectively, organizations can harness the power of data and AI, while upholding the fundamental right to their workers' privacy. This will go a long way towards informing the policy trajectory emerging from government.

The global policy landscape

Workplace data collection policies have significant variations across markets and governments due to diverse legal frameworks, cultural norms, and societal attitudes towards privacy and workplace practices and conditions. While some nations prioritize robust privacy protections, others adopt a more permissive stance. These differences are often rooted in historical, legal, and cultural factors that shape each country's approach to balancing employers' interests with workers' privacy rights.

Governments in some countries enact comprehensive legislation that strictly regulates workplace data collection measures, requiring employers to obtain explicit consent, provide clear disclosure, and establish legitimate justifications for different types of data collection. These markets emphasize the fundamental right to privacy, aiming to prevent undue intrusion into workers' personal lives. Conversely, other jurisdictions may adopt more lenient approaches, permitting a wider range of data collection practices without stringent requirements. Such governments might prioritize national security concerns, or societal norms over strict privacy safeguards.

These differences can underscore the complex interplay between technological advancements, legal considerations, and cultural perspectives that shape the policy and regulatory environment surrounding workplace data collection across the globe. While market differences will likely be a feature across this policy space, discussions are taking place at various multilateral forums on how to generate more consistency across jurisdictions.

Geographic overviews

Brazil

Brazilian workplace data collection policies are influenced by the General Data Protection Law (LGPD), which requires employers to obtain worker consent for processing personal data. Employers should also provide clear information about data collection and usage. While data collection is permissible, it must legally be proportionate and aligned with workers' rights to privacy and data protection. The rise of AI and advanced data collection software presents both opportunities and challenges for worker data collection policies in Brazil. While these technologies can enhance efficiency and security, they also necessitate careful consideration of data protection and individual privacy.

China

China's workplace data collection policies are influenced by laws associated with cybersecurity law, personal information protection, data security, the Civil Code, and relevant industry specific regulations on data security.

Public policies such as emphasis on social stability, national security, protection on employees' right also have important impact on workplace data collection practices, establishing a varied structure across Chinese businesses. Employers in China cooperate with government regulators based on laws and industry specific regulations. The development of AI and advanced data collection software is continuing to play a significant role in shaping workplace data collection in China. The country's emphasis on technological advancements and security has led to the widespread adoption of AI-driven data collection systems in businesses. Currently, there is an interim regulation, "*Interim Measures for the Administration of Generative Artificial Intelligence Services*," requiring AI Algorithm be filed and approved by regulators to ensure that these technological advancements are consistent with existing laws and regulations.

European Union

In the European Union (EU), workplace privacy laws are designed to safeguard the rights and privacy of workers while balancing the legitimate interests of employers. These laws, primarily governed by the General Data Protection Regulation (GDPR) and its specific employment-related provisions, are designed so that personal data collected from workers is processed fairly, transparently, and lawfully. Employers should clearly communicate the purpose and scope of data collection, obtain informed consent, and protect sensitive information. Workers have the right to access their personal data, rectify inaccuracies, and even request its deletion under certain circumstances. Data collection practices, such as email and internet usage, are subject to strict regulations to prevent undue intrusion into workers' private activities. Overall, EU workplace privacy laws aim to foster a respectful and secure work environment that respects individuals' fundamental rights to privacy.

The evolution of AI and advanced worker data collection software has introduced both opportunities and challenges to EU workplace privacy laws. While these technological advancements can enhance and streamline operations, they also raise concerns about data protection and worker privacy. As AI-driven systems gather and analyze vast amounts of worker data, ensuring compliance with GDPR principles becomes more intricate and complex. In early December 2023, the EU AI Act received provisional political agreement. It is primarily designed as a product safety regulation adopting a risk-based approach in categorizing AI systems based on their use cases – how the technology will be applied – and establishes compliance requirements per resulting level of risk, mostly focused on high-risk AI systems. Once finalised, it will likely challenge current practices, programs and algorithms being used in workplaces today to collect and use worker data. Transparent communication regarding the collection and use of AI-generated insights can be crucial; striking a balance between harnessing AI's benefits and safeguarding worker privacy is deemed essential to navigating this changing landscape and ensuring that workplace privacy laws remain effective and relevant.

India

In India, worker data collection is guided by various Federal Government Acts. These include the Employees Provident Fund Act, 1952 (EPF), Employees State Insurance Act, 1948 (ESI), Unorganized Workers Social Security Act, 2008 and various state-specific labor laws. While data is collected under the EPF and ESI Acts through employers, data collection on behalf of "unorganized"[32] workers—such as street vendors—is conducted via self-registration by the workers themselves, via a publicly accessible platform (the "e-SHRAM" portal). The growth of AI and data collection software introduces new possibilities for workplace data collection, which is being rapidly adopted across industries in India. Adapting existing workplace data collection policies to encompass AI-driven data collection, defining clear boundaries, and ensuring that workers' rights are respected will be pivotal for the Indian government to address, as these technologies become more integrated into the workplace. Being one of the largest labor forces globally[33] presents the Indian government with extremely timely challenges in the face of AI's integration into the workforce.

Mexico

Mexican workplace data collection policies are based on the Federal Labor Law, which establishes general guidelines for worker privacy. While employers have the right to establish workplace rules and data collection, these measures should respect workers' dignity and privacy. According to regulations, data collection should be justifiable, and it is accepted that employers are generally required to maintain confidentiality when handling workers' personal information and performance information. The advancements in AI and worker data collection software have the potential to reshape workplace data collection in Mexico. Striking a balance between harnessing the benefits of technology while safeguarding individual privacy will require policymakers to revisit existing data collection policies and potentially introduce new regulations that account for the unique challenges posed by AI-driven data collection.

South Africa

The right to privacy in South Africa is enshrined in the Constitution. In the context of the workplace, this right is embodied in the various pieces of legislation applicable to the privacy of employees' and their personal information. These laws include the Labour Relations Act (LRA), the Protection of Personal Information Act (POPIA), the Regulation of Interception of Communications and Communication-Related Information Act (RICA) and the Promotion of Access to Information Act (PAIA). Whether an employer may intercept communication of the employee or information about internet scrolling is mainly regulated by RICA. RICA prohibits the interception of email or other electronic messages. However, RICA does not constitute an absolute prohibition. An interception direction or authorization can be obtained, or the employee can freely and without duress provide consent to the interception. Employers may also electronically regulate internet and email use and access or implement email and internet policies. Policies within the framework of the laws and the LRA, can regulate the conduct of employees and protect employees from contravening the law.

POPIA regulates matters pertaining to using software to create a personal profile of the employee by collecting data of employee movement in and out the office or workplace, performance, attendance, location, internet scrolling preferences etc. These examples would amount to automated decision-making in terms of POPIA. An employee may not without consent, be the subject to a decision which results in legal consequences for the employee if the decision is based solely on the automated processing of the personal information. Measures should be in place to adequately protect the employee's interest. Furthermore, under POPIA, employers are required to obtain the consent of their employees before using surveillance cameras in the workplace. Employees must be informed of the purpose of the cameras and the nature and purpose of the surveillance. The surveillance must be carried out in a lawful manner that is reasonable and necessary. Employers are also required to provide employees with access to the footage that is collected by the cameras.

United Kingdom

The United Kingdom's (UK) workplace data collection policies are governed by the Data Protection Act and the General Data Protection Regulation (GDPR). These regulations emphasize the importance of obtaining informed consent and providing clear information to workers regarding the purpose and extent of data collection. Employers are required to have legitimate reasons for data collection such as maintaining security or complying with legal obligations. Although methods like video monitoring and email tracking are not regulated, there are basic guidelines to direct and advise employers on what is proportionate. The rise of AI and sophisticated data collection software presents both opportunities and challenges for policies across the UK. There is currently growing public discourse, highlighting a potential need for stricter oversight of the use of artificial intelligence in the workplace, amid growing concerns about its effect on staff rights.[34]

UK: A deeper look

In the UK, there are current discussions as to whether the governance of workplace data collection should be the responsibility of one single regulating body, or whether there is merit in empowering existing regulating bodies to develop bespoke solutions that work within each subset of workplace privacy and worker rights. This patchwork approach of such agencies may include, for example, those responsible for overseeing workplace health and safety, anti-discrimination and human rights, and privacy offices. Coordination between departments would be needed for the latter to be effective.

The UK Government recently stated that if AI was to be used to make or inform a decision to dismiss a worker, then employers will still be expected to comply with the already-established 'analogue' principles relating to unfair dismissal policies. Furthermore, the UK government confirmed that this will also involve a detailed explanation as to why the decision to dismiss a worker had been reached.

This example emphasizes the continuing need for human-centered decision making and the onus of accountability for businesses, in the wake of AI's rapidly growing use in the workplace.

"There's really no regulation at all around worker monitoring as a concept at the moment; it's really just up to companies. Really, what we need is not a series of new laws, it's a new body that can be flexible and iterative, and responsive to workers' needs."

Matt Buckley, Chair of United Tech and Allied Workers Union (UK)

United States

In the United States (US), workplace data collection policies can vary significantly due to the absence of a single, comprehensive federal privacy law. While national laws like the Electronic Communications Privacy Act (ECPA) and HIPAA provide some protections for electronic communications and medical information, workplace data collection largely falls under the jurisdiction and responsibility of individual states and state laws. Some states have laws governing worker privacy, including restrictions on email tracking and social media monitoring. However, in general, US employers have a relatively broad scope to track worker communications and activities, as long as they are not infringing on constitutionally protected rights. New developments in AI and data collection software are reshaping the landscape of workplaces. Many companies already aggregate and anonymize data collected in the workplace, yet there remain societal concerns about worker privacy; advanced AI algorithms can analyze worker communications and behaviors on a larger scale than ever before. As technology evolves, conversations continue about how to balance the benefits of organizational and workforce performance and security, and the protection of worker rights. As businesses strive to strike the right balance between adopting technological advancements and preserving individual privacy rights, it will likely prompt national and state-wide government discussions around updating existing labor and employment policies to address these emerging challenges.

Actions for business: Frameworks and collaboration

Building the right environment to deliver the business, social and economic advantages of technologically enhanced workplace data collection require all actors to work together and play their part. Depending on where in the world an organization is operating, there are different approaches to this development, ranging from voluntary codes of practice to stringent data privacy laws. As was the case with the post war industrial revolution, business is at the forefront. The IOE wants to see employers get ahead of the curve, understand government motivations and desired outcomes, and develop practical steps towards mutually beneficial policy outcomes.[35] Taking a back seat is not advisable given the rapid and disparate pace of change, and the extent of public discussion on the broad policy areas at play.

There are various approaches and frameworks that can support businesses in shaping workplace and workforce data policies, which are outlined later. These are practical and actionable steps that have the potential to help build better and more productive workplaces while addressing concerns associated with worker rights.

Better frameworks to improve trust

Deloitte Global: Trust Platform

Deloitte Global's Trust Platform (Deloitte Trust Platform) defines trust as the outcome of high competence (capability, reliability) and positive intent (humanity, transparency). Through extensive surveys and research, over 90 trust indicators were identified and collated; factors and drivers to identify where organizations can potentially earn or erode stakeholder trust. With respect to AI tools and software, the platform identifies several domains, outlined below, and offers a guide to how businesses and governments can innovate and implement AI frameworks into their practices:

- Digital engagement (including identification of mis/disinformation and platform safety concerns)
- Innovation, intelligence, and technology (including emerging technology assurance and compliance, and transparent and explainable use of AI in the workplace)
- Workforce experience (including adaptable workplace of the future)
- Data integrity and protection (including transparent data practices)
- Ethics (including ethical standards for emerging technologies and ethical incentives)

The Deloitte Trust Platform offers an ethical, competent, transparent approach to driving innovation and technological advancement in the workplace. The platform can be used as a guide for government and businesses in their approach to establishing appropriate regulations and policies to address workplace data collection.

For more information:
Deloitte Trust Platform

Deloitte US: Trustworthy AI Framework

Public discourse on the ethics of AI has filtered into the debate of worker data collection and is something that policymakers are tuned-in to when considering the types of regulations that are appropriate and implementable. Deloitte Global's paper on *AI and Rulemaking*[36] acknowledges two fundamental principles: 1) that AI is built and directed by humans, and 2) that policymakers are responsible for creating regulations to uphold security, ethics, accountability, and compliance across the world of AI.

The paper advances that those designing, monitoring, utilizing, and regulating AI should take a proactive approach to identifying and minimizing bias, so that AI does not perpetuate existing inequities or create new ones.[37] It suggests business may want to consider the following dimensions in Deloitte's Trustworthy AI™ framework—transparent and explainable, fair and impartial, robust and reliable, respectful of privacy, safe and secure, and responsible and accountable.[38] It also promotes the view that policy development on this matter is incumbent on government and businesses to promote the ethical, accountable, and inclusive deployment of AI technology, whilst also addressing the potential challenges and risks; the implementation of safe, fair, and ethical AI regulations should be upheld to the highest possible standard.[39] These apply equally to the workplace and worker data collection debate and should therefore be an integral factor for consideration by policy influencers.

For more information:
"Trustworthy AI" Framework

Deloitte Global: Future of Regulation Framework

Deloitte Global's *Future of Regulation* Framework supports a regulatory ecosystem that is focused on whether the aim, process, and outcome of rulemaking and rules themselves are fit for purpose; better regulation is not about whether there should be more regulation or less regulation. To help determine whether a rule is fit for purpose or not, requires the following elements. Better regulation:

- is underpinned by three core pillars: targeted conception, smart design, and committed implementation
- is dependent on a set of good regulatory practices to guide the aim, design, and implementation of rulemaking: transparency, agility, focused on outcomes, grounded in data and evidence, collaboration, and timely and regular review
- appreciates the importance of international regulatory cooperation (IRC) to help overcome fragmentation and friction, and strengthen understanding, quality, and efficiencies
- maximizes the benefits, raises quality and efficiency, ensures everyone's health and safety, and serves the public interest

For more information:
"Future of Regulation" Framework

Strengthening collaboration

Business and workers

In an environment of labor shortages, workers are getting more critical and vocal about their workplaces whilst business focusses on growth, innovation, and improved productivity. At the core of a successful quantified organization is building and maintaining workforce trust, achieved in part by encouraging business leaders to work closely with worker groups in the development and implementation of AI and data collection. According to the IOE, Germany's Work Councils are a proven process to co-develop to the benefit of workers and the business.[40] Co-designed industrial agreements can also be effective.

Business and government

In the pursuit of a quantified organization, business observing and engaging with governments is also deemed critical to achieving balanced outcomes for business, workers, and society. In the realm of responsible AI, some nations have adopted leading roles, through a collaborative effort between the government and the private sectors, highlighting the importance of such relationships in nurturing a responsible and trustworthy AI landscape (see later examples). In other areas of policy development, such as workplace gender equality, the Global Institute for Women's Leadership (King's College London) in collaboration with Deloitte Global published "Policies for Change", which highlights the importance of government policies in driving action and supporting company efforts.[41] Mutually beneficial policy outcomes often require pragmatic and practical approaches. This is where business can be proactive offering up experiences and outcomes of experimentation and the trialing new technologies.

Examples of strengthened collaboration

India

As mentioned previously, India's "e-SHRAM" platform allows unorganized workers to be discoverable and connected to digital and financial infrastructure, via mobile devices.[42] The crossover between government and business allowed this project to flourish, and to provide gig economies with greater access to financial institutions. The e-SHRAM portal allows for self-employed and disorganized workers to access financial support and government services; being discoverable and connected to India's digital and financial infrastructure is helping create a sustainable, inclusive and equitable approach to the digital transformation agenda.[43]

Japan

As of 2023, Japanese company Hitachi has established a new center of excellence called the "Generative AI Center" to promote the safe and effective use of Generative AI. The Center aims to promote faster growth for Hitachi, through maximizing value provided to Hitachi customers and improving worker productivity and outputs. President and CEO of Hitachi, Keiji Kojima stated that "Hitachi will leverage its long-standing regulations and insights on privacy protection and AI ethics to safely use cutting-edge technologies while taking measures to reduce risks, thereby helping to solve future problems and contribute to the realization of a sustainable society."[44]

Singapore

The Singaporean government has collaborated with the private sector, fostering an environment conducive to AI development and testing while prioritizing ethics, accountability, and transparency. This collaboration has led to the establishment of the "AI Verify" initiative, a platform designed to assess AI systems' compliance with ethical guidelines and regulations.[45] This initiative demonstrates a multi-pronged commitment to ensuring that AI technologies align with societal values, and it serves as a model for how governments and businesses can collaborate to foster responsible AI innovation and keep societal interests at the core of their operations.

This example illustrates how vital collaborations between the government and business can be, in shaping ethical AI governance. By proactively addressing AI governance and ethics, Singapore serves as a model for other nations, emphasizing the significance of government-business cooperation in cultivating a responsible and trustworthy AI ecosystem.

International cooperation

International cooperation between governments and the private sector is seen as critical given the global nature of businesses, technological advancements, and the interconnectedness of economies.[46] International cooperation is a pressing opportunity for business to engage in dialogue with government; there is a sense of urgency on this matter due to the fractured development and adoption of policy responses around the world. The matters below also mirror the global debate on data privacy.

Cross-border operations of businesses

Many companies operate across multiple countries and jurisdictions. As workplace data collection software can cross over national borders, consistency may help uphold workers' rights regardless of where they are located. Without international cooperation, opportunities to exploit regulatory gaps arise, with the potential to engage in practices that could infringe on workers' rights in one jurisdiction, but not another, and create unfair playing fields for business.

Common guidelines

International cooperation enables the establishment of relevant global baselines, allowing for jurisdictional overlays to meet local cultural and market needs, and best practices for workplace data collection. By establishing common guidelines, governments and the private sector can collaboratively address issues like informed consent, data protection, and the ethical use of AI, preventing a "race to the bottom", potentially compromising workers' rights or business growth in the process.

Responsive to technological advancements

Technology is rapidly evolving, and new forms and tools for workplace data collection are continuously being developed. International cooperation allows governments and businesses to stay updated on these advancements and adapt regulations accordingly. This responsiveness helps in preventing undue concentration of power and the misuse of technology, which could otherwise lead to significant violations of workers' rights.

Protection of privacy rights

Privacy is a fundamental human right recognized globally. International cooperation facilitates workers' privacy rights being respected universally. By sharing knowledge, experiences, and lessons learned, governments and the private sector can collectively shape policies that prioritize privacy, consent, and transparency in workplace data collection practices.

Consistency in enforcement

When regulations are consistent internationally, enforcement becomes more effective. It prevents companies from evading accountability by moving operations to countries with less restrictive regulations. A collaborative approach facilitates the upholding of both local and international laws, providing workers and businesses with more robust protection mechanisms.

International co-operation can lead to the establishment of a global baseline, from which local markets can build jurisdictional overlays to meet local cultural and market needs. In the sphere of workplace data collection, such cooperation could result in a fair and ethical framework for workplace data collection, and the use and transfer of data, including cross border where relevant.[47] Business has an opportunity here to advocate for the responsible implementation of policies that work for them and their workers.

Examples of successful international cooperation

OECD

Tackling climate change is one example of successful, ongoing international cooperation between multinational businesses and governments. The OECD's *Sustainable Development Goals: Private Sector Peer Learning Policy Brief Series* reaffirm that growth and development in pivotal areas across the global community likely cannot continue without significant investment and innovation. It also requires concerted, multi-stakeholder approaches that draws on the contributions from all parts of society, such as partnerships between government and the private sector, to leverage private capital, expertise, and innovation.[48] To support success in this context, international cooperation between the private sector and governments is an opportunity to mobilize resources, knowledge, and innovation for addressing pivotal global challenges and promoting learning and growth.

G20 and B20

An example of businesses advocating for key global issues and challenges is the establishment of the Business20 (B20) group. The B20 acts as the voice of the G20 international business community, to promote dialogue among policy makers, civil society, and businesses.[49] The mission of the B20 is to advance the representation of businesses and their interests, whilst addressing global challenges and sharing thought leadership with world leaders, through the development of concrete policy recommendations.[50]

Conclusion

Policy development involving government, business and worker organizations will continue in markets around the world as workplace data collection practices increase, facilitated by AI and other technological advances. If the relevant data is collected and used appropriately, there can be enormous benefits to all involved. Businesses can use this data to shape innovation, establish new or updated workplace practices, with corresponding productivity and value enhancement. Workers can look for improved workplace practices and processes, better protections and safety, improved workplace satisfaction and positivity, and fair industrial outcomes. Government sits at the crossroad creating and amending laws and policies to establish an effective ecosystem. Effective policies will release productivity improvements, and therefore economic growth and societal development. As this paper highlights, there are varying perspectives on how best to deliver this, and all are influenced by different cultures and practices across markets.

In the current global policy landscape commonalities are emerging across different markets, presenting opportunities and challenges to policymakers and shapers. These trends include:

A broad range of policy areas being developed to accommodate new workplace data collection activities, including the ethical use of AI, data collection and privacy, use and transfer of data, equity and equality considerations, industrial relations, occupational health and safety matters, and communication practices, amongst many others

An urgency across markets to establish the right policies, to reflect the speed at which this technology has been adopted and implemented, to better support ethical workplace data collection and use

A fundamental focus on fairness, ethics, trust, and the preservation of fundamental rights and freedoms

A need for cooperative relationships between business and workers, and business and government, to benefit all interests and positively impact society

A focus on international cooperation, and pragmatic and practical outcomes, as directed by the growing global level discussions surrounding the topic of regulating AI

A tripartite approach is needed to achieve positive outcomes for government, business, and society. Further the policy outcomes should be based on fairness, ethics, trust, and the preservation of fundamental rights and freedoms, regardless of market and cultural and societal practices and expectations. Dialogue should continue in earnest to bring laws and regulation in line with the rapidly emerging business practices in the sphere of workplace data collection. Government may not be able to do this alone and businesses should lean in and play their role. Collaboration holds the promise of fostering a new generation of workplaces that are not only innovative, but also respectful of worker rights and ethical standards.

[1] Deloitte, Beyond Productivity: The journey to the quantified organization, 2023, p.5-8.

[2] Deloitte, Beyond Productivity: The journey to the quantified organization, 2023, p.2.

[3] Deloitte, Beyond Productivity: The journey to the quantified organization, 2023, p.3.

[4] Simon Migliano, "Privacy Risks of Employee Monitoring Software" Top10VPN, 2023.

[5] Laura Lemon, "How will employee monitoring impact organizations?", Institute for Public Relations, 26 June 2023.

[6] Deloitte, Beyond Productivity: The journey to the quantified organization, 2023, p.2.

[7] International Organisation of Employers, "About Us", June 2023.

[8] Renate Hornung-Draus (BDA Managing Director, Economic and International Affairs & IOE Vice-President to the ILO), interview, 12 October 2023.

[9] Ibid.

[10] Ibid.

[11] Ibid.

[12] Ibid.

[13] Deloitte, Beyond Productivity: The journey to the quantified organization, 2023, p.4.

[14] Deloitte, "Beyond Productivity: The journey to the quantified organization," 2023, p.47.

[15] Deloitte US, "State of Ethics and Trust in Technology Annual Report, Second edition," 2023, p.29.

[16] Deloitte, Beyond Productivity: The journey to the quantified organization, 2023, p.60.

[17] Deloitte, Beyond Productivity: The journey to the quantified organization, 2023, p.62.

[18] Andrew Higginson, Professor Drew Dawson, and Dr Madeline Sprajcer, "Phase 2 | Fatigue/Distraction Detection Technology Use in the Australian Road Freight Transport Sector", 2019, p.2.

[19] Sharon Newnam and Carlyn Muir, "Reforming the future of workplace road safety using systems-thinking workplace road safety surveillance," ScienceDirect 138 Abstract, (2021).

[20] Leandro Donisi, Giuseppe Cesarelli, Noemi Pisani, Alfonso Maria Ponsiglione, Carlo Ricciardi and Edda Capodaglio, "Wearable Sensors and Artificial Intelligence for Physical Ergonomics: A Systematic Review of Literature," Diagnostics Volume 12, 2022, p.16.

[21] Chase Thiel, Julena M. Bonner, John Bush, David Welsh, and Niharika Garud, "Monitoring Employees Makes Them More Likely to Break Rules," Harvard Business Review (HBR), 27 June 2022.

[22] Euan Black, "'I'm going for a jog': Why bosses are loud leaving," Australian Financial Review (AFR), 23 March 2023.

[23] Michele Lerner, "Electronically monitoring your employees? It's impacting their mental health," American Psycological Association (APA), 7 September 2023.

[24] Phoebe V. Moore, "Artificial Intelligence in the Workplace: What is at Stake for Workers?", OpenMind bbva – Section 4 Gig Work, 2020.

[25] Ibid.

[26] Kelvin Taylor, Pieter Van Dijk, Sharon Newnam, Dianne Sheppard, "Physical and psychological hazards in the gig economy system: A systematic review", Safety Science, Volume 166, 2023, p.1.

[27] Ben Zipperer, Celine McNicholas, Margaret Poydock, Daniel Schneider, and Kristen Harknett, "National survey of gig workers paints a picture of poor working conditions, low pay", Economic Policy Institute, 1 June 2022.

[28] Deloitte, "Beyond Productivity: The journey to the quantified organization," 2023, p.19.

[29] Anita Lee-Post, "BMW's Digital Twin Factory," OMintheNews, 2 April 2023.

[30] Ibid.

[31] Ameesh Divatia, "Top Business Priorities In 2023: Compliance, Data Security, Data Pipelines And Zero Trust," Forbes 21 November 2022.

[32] The 'unorganized worker' has been defined under the Unorganized Workers' Social Security Act, 2008, as a home based worker, self-employed worker or a wage worker in the unorganized sector and includes a worker in the organized sector who is not covered by any of the Acts mentioned in Schedule-II of Act i.e., the Employee's Compensation Act, 1923 (3 of 1923), the Industrial Disputes Act, 1947 (14 of 1947), the Employees' State Insurance Act, 1948 (34 of 1948), the Employees Provident Funds and Miscellaneous Provision Act, 1952 (19 of 1952), the Maternity Benefit Act, 1961 (53 of 1961) and the Payment of Gratuity Act, 1972 (39 of 1972).

[33] World Bank, "World Labor Force Totals", World Development Indicators database, 2023.

[34] Heather Stewart, "Calls for stricter UK oversight of workplace AI amid fears for staff rights", The Guardian, 16 April 2023.

[35] Renate Hornung-Draus (BDA Managing Director, Economic and International Affairs & IOE Vice-President to the ILO), interview, 12 October 2023.

[36] Simon Cleveland and Kyra Kaszynski, "Artificial Intelligence and Rulemaking," Deloitte, May 2023.

[37] Simon Cleveland and Kyra Kaszynski, "Artificial Intelligence and Rulemaking," Deloitte, May 2023, p.3.

[38] Simon Cleveland and Kyra Kaszynski, "Artificial Intelligence and Rulemaking," Deloitte, May 2023, p.4.

[39] Simon Cleveland and Kyra Kaszynski, "Artificial Intelligence and Rulemaking," Deloitte, May 2023.

[40] Renate Hornung-Draus (BDA Managing Director, Economic and International Affairs & IOE Vice-President to the ILO), interview, 12 October 2023.

[41] Abbey Atkinson and Minna Cowper-Coles, with Kanika Gandhi and Naema Jannath, "Policies for change," Deloitte, March 2023, p.8-9.

[42] Ministry of Labour & Environment – Government of India, "eShram Portal- National Database of Unorganized Workers," brochure, April 2023.

[43] Siddarth Dixit, "India's digital transformation could be a game-changer for economic development," World Bank Blogs, 20 June 2023.

[44] Hitachi, "Hitachi Establishes New "Generative AI Center" to Accelerate Value Creation and Improve Productivity in the Lumada business by promoting the use of Generative AI," press release, 15 May 2023.

[45] Personal Data Protection Commission (PDPD) Singapore, "Singapore's Approach to AI Governance," January 2020.

[46] Cameron F. Kerry, Joshua P. Meltzer, Andrea Renda, Alex C. Engler and Rosanna Fanni, Strengthening International Cooperation on AI, Brookings, 2021.

[47] Trades Union Congress UK, "Technology managing people: The worker experience", June 2020.

[48] Organisation for Economic Co-operation and Development (OECD), "Peer learning: Lessons from DAC members on effectively engaging the private sector in development co-operation," 2015.

[49] B20 Business Summit, "What is B20?", 2011.

[50] Ibid.

Contact Information

Simon Cleveland

Global Public Policy Leader

scleveland@deloitte.co.uk

Nicole Scoble-Williams

Global Future of Work Leader

nscoble-williams@tohmatsu.co.jp

Madonna Jarrett

Global Public Policy Director

madonjarrett@deloitte.com.au

Alexia Tassios

Global Public Policy Senior Analyst

atassios@deloitte.com.au

Deloitte.