

WHITEPAPER

# Building a competitive, ethical AI economy

*"Business has to show leadership, or it will lose out." – Donald Brydon, Chairman of Sage*

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# Executive summary

Artificial Intelligence (AI) delivers real insights with real world applications. Its global presence materializes in business, academic and government innovations. AI impacts personal and professional lives – from an HR manager finding the right hire for a technical job to someone about to have a baby finding the nearest hospital. However, there is still a global need to demystify AI for people in an ethical, trustworthy and sustainable way. Businesses need to lead that process with an honest, global conversation about AI's benefits to industry, government and our personal lives.

Achieving ethical AI is about more than corporate reputation. It is core to successful business models and executive decision-making. Building ethical AI is essential to making sure interactions with technology actually help people and improve work. Indeed, society needs to be able to trust its real applications for specific industries, workflows and personal situations. People need to understand how AI works, why it provides the best solution in a given context and why they should welcome assistance from an AI-powered platform.

Industry's next challenge will be to move the global conversation away from AI as a threat—or replacement—for humans, and towards encouraging businesses to approach AI as a complement to human ingenuity. That process begins with executive boards and business leaders defining ethical principles that guide AI development within specific departments, companies, industries and markets. Industry leaders must then work closely with AI experts and developers to put ethical principles into practice by:

- **Building, testing and deploying** AI technologies destined for the world responsibly in order to secure public trust, government support and an innovative future.
- **Communicating** AI's diverse value and benefits to diverse sets of people – and that AI advocacy must permeate from the boardroom to the office front desk.
- **Demystifying** the inner workings of AI, alleviate public concerns over potential risks and explaining how businesses use the technology to deliver value to customers.
- **Uncovering** ethical approaches to AI that apply to specific industries and companies in order to safeguard the longevity of human interactions with AI technology.
- **Educating** users – including employees, customers, public sector officials and society in general – about AI and clearly explaining the technology's applications.
- **Ditching** jargon when talking to potential technology buyers, customers and the larger community about AI – using simplified language to explain AI and point to clear examples for non-technical audiences.
- **Creating** branding standards for businesses working with AI – ethical AI extends to accurately portraying an organization's AI-driven technologies, capabilities and services.

The following white paper distils key insights from a recent discussion between government and international business leaders. Hosted by [Sage](#), the conversation underscores how industry can shed light on AI development for regular people, gain company-wide support for ethical AI practices, adopt and apply ethical approaches to AI development in the real world. This paper details takeaways and recommendations from the discussion.

# *Introducing AI corporate governance and ethical frameworks*

People hold the private sector and individual executives to a higher standard than ever before. Regulators and investors increasingly require proof of stellar business conduct from companies. In an effort to encourage fairness and transparency, regulators increasingly want businesses to convey how they benefit wider communities, including employees, partners, suppliers and customers. For example, from 2020 onwards, large companies in the UK will be required [under](#) Section 172 of the Companies Act to actively report on how they maintain high business conduct standards, protect the surrounding environment and deliver value to people beyond core commercial stakeholders.

When it comes to industry implementing technology, a laissez faire attitude to consumer trust will not be tolerated. Consumers expect companies to be socially conscious, treat employees fairly and give back to the communities in which they operate. Employees expect companies to have their interests in mind. Employees want business leaders to involve staff across departments in major workflow changes to ensure job protection and adaptation. The stakes are higher than ever as technologies like mobile, web, cloud and AI are now core to commercial services, applications and devices that people use every day.

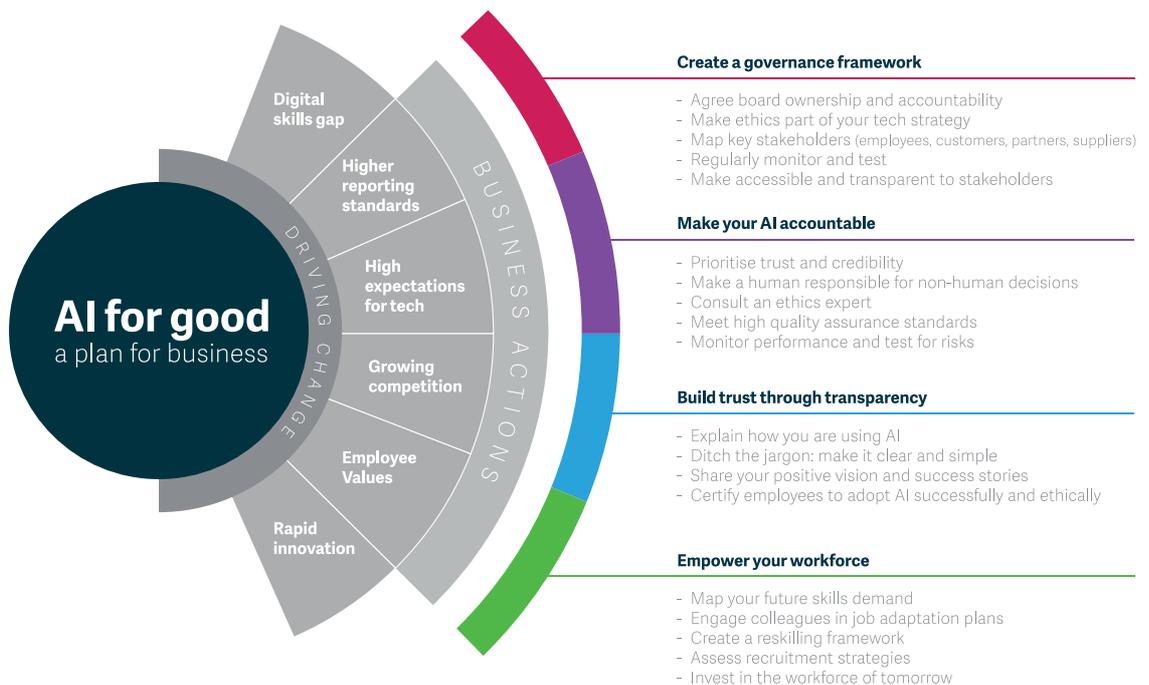
Increased pressure from outside and within organizations drives businesses to decide whether to adopt measures that alter how companies conduct business, how staff interact with each other and how technologies like AI deliver services to people – from suppliers to employees to the greater community. Some might say that we place even higher standards on our automated counterparts than we do on our human colleagues – which beckons a clarion call for business leaders to reconsider standards governing how people work as well.

Companies – especially businesses using AI within their products – can get ahead of the multidimensional pressure by proactively developing their own frameworks that tackle elements of ethical business practices and connect them with corporate responsibilities to their customers. These frameworks could remain high-level in scope, but apply to everything from corporate risk to employee professional development to customer service to ethical technology deployment. Established corporate standards could extend to cover how companies present their AI capabilities and accurately convey technology functionality to external audiences.

In practice, ethical frameworks can take the form of a tangible document that outlines an organization's specific reasons for pursuing a responsible path to innovation. They can also materialize as a single call-to-action that originates from a board meeting or companywide email from a C-suite executive. Frameworks can also be developed at the practitioner level and shared with executive teams for visibility. Regardless of the format, developing and implementing internal frameworks are an important step towards helping industry tackle ethical challenges and avoid crises.

**Where businesses can make a difference:** Develop or revise corporate governance frameworks to include ethical technology policies with top-down accountability measures specific to each organization's business model. Include adherence to frameworks as a static agenda item for discussion at board meetings, employee performance reviews and less formal management/staff check-ins to establish accountability expectations at every level.

**Where government can make a change:** Look at the role of regulators, like the UK's Financial Reporting Council (FRC), in guiding and assisting specific sectors on ethical best practices implementation. Work with industry AI experts to familiarize regulators with the technology's technical makeup, potential security risks and real world applications before launching formal investigation programs. Review the need for enforcing domestic and/or international standards in order to ensure a level playing field.



# Demystifying AI and sharing accountability

People create technology. People improve upon existing technology. People use those technologies in everyday life. That is why humans must be held accountable for the actions of the technologies they build, innovate upon and deploy into the world. In the context of industry, accountability for the performance of corporate AI should lie with the executive board and C-suite – and permeate throughout an organization from CEO to developer to customer service manager.

Development teams should make it a point early on to consult with external ethics experts from within the same sector and from diverse disciplines – private, public and academic – to understand what levels of accountability and explainability they need to achieve when building specific AI technologies. Once the machine is built, businesses need to perform quality assurance and engage in [rigorous bias detection testing](#) that ensures the product meets accountability standards guiding development. Specifically, companies need to test AI's functionality, data sources and public messaging about its value to people prior to technology hitting the market.

The pace of corporate AI innovation is rapid and has the potential to outpace an organization's ability to keep tabs on ethical progress and performance. Consequently, companies need policies and procedures in place that govern all interactions AI technologies have with people. Businesses need to employ dedicated human counterparts that regularly monitor AI performance – especially once products hit the market – and swiftly mitigate negative or unforeseen outcomes.

Companies should regularly test AI for potential risks and biases during the development stage. Performance testing is crucial to ensuring corporate AI's outputs and behaviors will not damage customer trust. Businesses should employ human monitors to keep tabs on the performance of deployed AI systems and respond immediately to performance flaws. We may need to accept that prioritizing ethics could impact productivity in the short-term. However, in the long run achieving ethical AI will foster trust, credibility and engagement from customers. This sounds expensive, and in reality, it will be – but not as costly as lost customer trust and answering to corporate reputations.

## **Where businesses can make a difference:**

Engage external ethical experts to explore how AI accountability or explainability applies to specific corporate ambitions and customers needs. Develop strategies for testing AI prior to deployment – and monitoring once AI is out in the world.

**Where government can make a change:** Recognize that there needs to be a balance between allowing corporate AI innovation to take place at breakneck speed and introducing measures that increase accountability for both people and technologies to keep everyone honest, ethical and transparent.

# Building human trust in corporate AI

Many people still do not know that AI powers common web platforms, mobile applications and personal devices – and has done so for years. In fact, recent [Sage research](#) showed that ‘nearly half of people surveyed had no idea what AI was all about’. AI will continue to permeate core business functions across industries. The technology will increasingly power devices people use to connect with information.

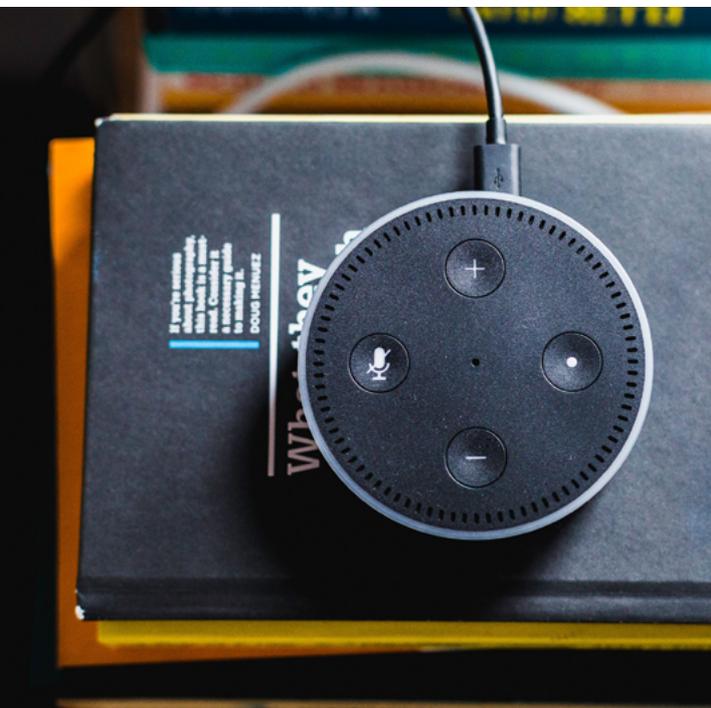
Consumers have the right to know how prevalent and, most importantly, useful AI can be in their daily lives. Industry needs to take the responsibility to communicate AI’s benefits and ensure those benefits are shared with users clearly and in full. In the workplace, employees turning to applications for task automation, customer service or internal support need to know when they are interacting with a human or an AI-powered platform. It is imperative for companies to make this delineation as clear as possible for employees and consumers alike so they can begin establishing trust with the technology.

Fundamentally, business needs to understand AI’s positive applications and the safeguards put in place to ensure the technology completes its intended function ethically. In practice, AI should be able to maintain its own ethical operations and adapt when unusual requests or interactions pop up. AI should be able to announce to a human user that they are interacting with AI up front, explain the value it can provide to someone within the context of an interaction, and be able to understand any differences in circumstances

Companies can streamline and accelerate employee understanding of AI by sharing positive case studies through traditional channels like in-person meetings, email or on an intranet page. Businesses can build further trust among employees with the delivery of AI information, education, training and certification programs for people working directly with AI.

**Where businesses can make a difference:** Make corporate approaches to informing stakeholders about AI and its purpose as transparent as possible. Introduce training and certification programs for partners and employees working with AI to conduct business. Communicate steps taken to test AI for performance flaws and safeguard work done with the technology to potential users.

**Where government can make a change:** Run government-anchored awareness campaigns to reduce public inhibitions around AI presence in work and everyday life. Look for opportunities to involve members of the public in ongoing government conversations that address current concerns, introduce future considerations and complement business outreach.



# Welcoming AI into the workforce

Businesses need to be honest and transparent about AI's impact on jobs while turning public concerns into a positive conversation. Companies will need to reskill employees as more automated technologies like AI and digital services drive global business. Traditional office skills – and even software programming skills – will need to evolve to embrace a shared workplace with technology. The specific needs of industries and companies working in tandem with AI will change over the next decade. However, there are steps industry can take to prepare from a corporate, employee and recruitment standpoint.

In the short-term, companies can take a page from LinkedIn's book and launch internal AI academies for developers, engineers and technical recruits – especially those familiar with building deep technology products. On the people side, skills

need to be addressed at every level. Companies like Infosys have already committed to retraining millions of workers in diverse fields in the path of automation. In general, employees across industries will need to be reskilled en masse for an AI- and automated technology-driven workplace.

First, boards and C-suite executives need to empower human resources leaders to develop internal programs and outsource critical training to experts when necessary. Companies that do not evaluate both hard and soft skills will fall short. AI is approaching the ability to self-code and self-regulate. Eventually, people working with AI may not actually need a background in computer science to be a data scientist or engineer at all. They may have a background in humanities, literature or philosophy.

Within the AI industry, the barriers of entry for developers, engineers and coders need to come down. There is a global shortage of computer and data scientists with doctorate degrees. Industry needs to expand talent pools across industries to bring more people into the fold – especially as AI matures as a network of technologies and innovation turns to ethical practices. In the same way some non-technical professions like advertising tap coding to perform services, the jobs of the future will expand beyond core skills and require people to understand the basics of AI.

In practice, industry needs to emphasize commitment to retraining current employees for an uncertain future and point to the significant new job creation AI will bring to a digitally native workforce. Businesses should take steps to allocate HR and professional development resources to investing in new skills for current employees and new recruits alike. Meanwhile, companies should work within their own community and proactively reach out to schools, training centers and higher education institutions to encourage people to pursue careers that involve AI.

At Sage, we are working through [Sage Foundation](#), and in partnership with [Tech for Life UK](#), to bring coding, computer skills and AI literacy to young people from diverse communities in the UK and around the world.

**Where businesses can make a difference:** Invest in school programs to support community digital education. Empower HR functions with data to map future skills demand. Invest in retraining. Call on fellow businesses and Governments to incorporate AI and data science into staff training throughout ranks.

**Where government can make a change:** Ensure young people leave education equipped for applying AI and with an understanding of the wider ethical issues. Redirect existing skills investment into staff retraining for jobs that interact significantly with AI and other automated technologies.

# Conclusion:

## *Building a competitive, ethical economy*

Every factor outlined above – corporate governance, trust, accountability and retraining workforces – presents considerations for boards and executives planning technology investments for the future. Each element provides a motive for companies to develop and invest in ethical AI practices for the benefit of society. Viewing AI technologies through an ethical lens and connecting them to established internal frameworks will help filter during the process. Once people embrace a shared future with AI, entrenched workplace productivity, inclusion and collaboration will become enduring realities that benefit business and society. The journey will be challenging, but extremely rewarding for every person involved.

Companies looking to adopt socially responsible AI will need to do their research and due diligence. They will need to understand which AI solutions and approaches work best for them. Many business conversations focus on the technology's actual utility for specific industries and cost-cutting potential to replace tasks done by human counterparts. They miss the massive potential for a successful transition into a workplace of the future shared by humans and AI.

From now onward, industry needs to introduce technology-focused ethics frameworks and roadmaps into corporate investment strategies from the start. Companies need to identify value-adding and human-complementing benefits AI can deliver to specific industries, customers and communities. Business leaders need to take responsibility for communicating the values of ethical AI to populations around the world.

# Methodology

On June 12, 2018, Sage convened a working group of international business executives and United Kingdom government officials to discuss industry's role in helping people understand the ethical implications of Artificial Intelligence (AI). The conversation, held under Chatham House rule, covered industry's role in driving AI corporate governance, accountability and explainability, public trust and board-level investment. This white paper aims to pinpoint important insights from the discussion and provide context around their application for global industry. There are no direct quotes or specific company examples reflected in the paper in accordance with the Chatham House nature of the event.

# About Sage

[Sage](#) (FTSE:SGE) is the global market leader for technology that helps businesses of all sizes manage everything from money to people – whether they're a start-up or enterprise. We do this through [Sage Business Cloud](#) – the one and only business management solution that customers will ever need, comprising Accounting, Financials, Enterprise Management, People, Payroll and Payments & Banking.

Sage's mission is to free business builders from the burden of admin, so they can spend more time doing what they love – and Sage does that every day for three million customers across 23 countries, through 13,000 colleagues and a network of accountants and partners. Sage is committed to doing business the right way and giving back to communities through the [Sage Foundation](#).

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