



Policy briefing – the UK government’s White Paper on AI regulation (March 2023)

This briefing was prepared by the [Ada Lovelace Institute](#) to inform interested stakeholders on the content of ‘A pro-innovation approach to AI regulation’, the White Paper published on Wednesday 29th March 2023 by the Department for Science, Innovation and Technology. It contains information on the following topics:

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For more information on any of the topics covered in this briefing, please contact Ada’s UK Public Policy Lead Matt Davies (mdavies@adalovelaceinstitute.org).

About the Ada Lovelace Institute

The [Ada Lovelace Institute](#) is an independent research institute with a mission to make data and AI work for people and society. This means making sure that the opportunities, benefits and privileges generated by data and AI are justly and equitably distributed.

We do this by:

- **convening diverse voices** to create an inclusive understanding of the ethical issues arising from data and AI
- **building evidence** to support rigorous research and foster informed debate on how data and AI affect people and society
- **shaping and informing good policy and practice** to prioritise societal benefits in the design and deployment of data and AI.

Previous work by Ada on AI regulation and related topics includes:

- [Regulate to Innovate](#) (2021)
- [Regulatory inspection of algorithmic systems](#) (2021)
- [Who cares what the public think? UK public attitudes to regulating data and data-driven technologies](#) (2022)
- [Rethinking data and rebalancing digital power](#) (2022)
- [People, risk and the unique requirements of AI](#) (2022)
- [The value chain of general-purpose AI](#) (2023)

Summary

The UK government has laid out its ambition to make the UK an 'AI superpower'. This can't happen without clear, comprehensive regulation: giving businesses with the legal clarity and certainty they need, supporting public confidence in AI, and safeguarding our fundamental rights.

The Government's White Paper on AI is an important milestone on the UK's journey towards this vision and we commend the Government for its serious engagement with this difficult regulatory challenge. We also welcome the adoption of several recommendations set out in our previous research.

However, there are **significant gaps in the UK government's approach** that risk undermining the credibility of the UK's regulatory framework for AI – and therefore the UK's AI leadership:

1. **The proposed regulatory framework risks leaving prominent AI harms unaddressed**, such as the misuse of general-purpose AI systems like GPT-4 and Google's Bard or the use of AI in unregulated and partially regulated areas like recruitment, education and employment.
2. **The new regulation is underpowered**, lacking statutory backing and adequate resourcing for regulators. The Government anticipates introducing legislation in future, but AI systems are already having real-world impacts today.
3. **The Government's reforms to data protection risk undercutting the new AI regulatory framework** before it is even in place by reducing the independence of the ICO and weakening existing protections against automated decision making and misuse of emerging technologies.

Next steps

The White Paper consultation closes on 12 June, and implementing the proposals will take several years. During this time, there will be opportunities to address the gaps in the current approach, and Ada will continue to use our research to inform efforts to do this. We have set out a number of questions, below, which reflect these gaps, and can provide further information on request.

Suggested questions

1. ChatGPT is being used by more than 100 million people, including many in the UK, for everything from holiday planning to healthcare advice. In disregarding regulatory action as 'premature' is the Government repeating mistakes made with social media platforms a decade ago?
2. The Government's proposals will initially lack statutory footing, which regulators say could compromise their ability to act. Why isn't the Government bringing forward legislation now?
3. General purpose AI systems such as OpenAI's GPT-4 and Google's Bard are shrouded in secrecy. Does the Government agree that developers should share information on their systems so that regulators can better decide what rules might need to be put in place?
4. AI systems are already having real-world impacts, including in sensitive contexts like recruitment which are only partially regulated. Who will ensure that uses of AI in these cases are 'appropriately transparent and explainable' as required by the White Paper?
5. The Data Protection and Digital Information Bill weakens protections against automated decision making, including by AI systems. Doesn't this risk damaging business and consumer confidence in AI, undermining the Government's aspirations to make the UK an 'AI superpower'?

Background on AI regulation in the UK

Artificial intelligence ('AI') refers to a range of developing and evolving systems such as machine learning, robotics, automation and algorithms. The UK Government has laid out its ambition to make the UK an 'AI superpower', leveraging the development and proliferation of AI technologies to benefit the UK's society and economy.

This can't happen without clear, effective regulation which provides the platform on which the UK's future AI economy can be built. 'Regulating AI' means addressing issues that might harm public trust in AI, such as data-driven or algorithmic social scoring, biometric identification and the use of AI systems in law enforcement, education and employment.

There is currently no holistic body of legislation governing the development, deployment or use of AI in the UK, but that does not mean that AI is not subject to regulation. Numerous examples of non-statutory guidance exist from regulators, corporate bodies and Government, covering the relationship between AI and specific topics such as data protection, procurement and equalities.¹

These initiatives have provided elements of governance in the AI value chain, but the ecosystem is complex and lacks coherence. To rectify this, the Government has signalled its intention to begin the development of a more comprehensive regulatory framework for AI. Developments so far have included:

- the 2017 publication of '[Growing the artificial intelligence industry in the UK](#)', an independent review commissioned by government and carried out by Professor Dame Wendy Hall and Jérôme Pesenti²
- the establishment in 2018 of the AI Council to advise the Government on AI policy and ethics;
- the publication in 2021 of the [National AI Strategy](#), which outlines the Government's vision for the development of AI in the UK³
- the publication in July 2022 of a policy statement '[Establishing a pro-innovation approach to regulating AI](#)' which outlined the broad contours of the UK government's proposed approach.⁴

¹ 'Guidance on AI and data protection', Information Commissioner's Office <https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/guidance-on-ai-and-data-protection/>; 'Guidelines for AI procurement'; Office for AI, June 2020 <https://www.gov.uk/government/publications/guidelines-for-ai-procurement/guidelines-for-ai-procurement>; 'Artificial intelligence in public services', Equality and Human Rights Commission, September 2022 <https://equalityhumanrights.com/en/advice-and-guidance/artificial-intelligence-public-services>.

² 'Growing the artificial intelligence industry in the UK.' HM Government, October 2017, <https://www.gov.uk/government/publications/growing-the-artificial-intelligence-industry-in-the-uk>.

³ 'National AI Strategy', HM Government, September 2021, <https://www.gov.uk/government/publications/national-ai-strategy>.

⁴ 'Establishing a pro-innovation approach to regulating', Department for Digital, Culture, Media and Sport, July 2022, <https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai>.

The White Paper (March 2023) proposals

'A pro-innovation approach to AI regulation', the White Paper published on Wednesday 29 March 2023 by the Department for Science, Innovation and Technology (henceforth 'the White Paper'), is the latest milestone in the UK's journey towards a more comprehensive regulatory framework for AI.

The White Paper builds on the previous outputs listed above, setting out the UK government's approach in greater detail. It also sets out a number of questions on which the Government is seeking answers by 21 of June 2023.

The White Paper contains proposals for a **contextual, sector-based regulatory framework**. It sets out five principles to 'guide and inform the responsible development and use of AI in all sectors of the economy':

1. Safety, security and robustness
2. Appropriate transparency and explainability
3. Fairness
4. Accountability and governance
5. Contestability and redress

The Government intends for these principles to be interpreted and acted upon by existing regulators, without initially putting them on a statutory footing. They are effectively instructions to regulators about what outcomes they should be aiming for when AI is deployed in the areas for which they are responsible.

The White Paper also signals the intention to establish **central, cross-cutting functions within government** to support regulators in enacting the principles. These functions will include:

- monitoring and evaluation of the overall regulatory framework's effectiveness and the implementation of the principles
- assessing and monitoring risks across the economy arising from AI
- conducting horizon scanning and gap analysis, including by convening industry, to inform a coherent regulatory response to emerging AI technology trends
- supporting testbeds and sandbox initiatives to help AI innovators get new technologies to market
- providing education and awareness to businesses and citizens
- promoting interoperability with international regulatory frameworks including horizon scanning and risk assessment, coordination, and monitoring and evaluation of the overall regime.

The White Paper says that these 'central support functions' will initially be provided from within Government, but will make use of activities and expertise from elsewhere. It is clear that the new functions will *not* replace the work undertaken by regulators and will *not* involve the creation of a new AI regulator.

The White Paper also incorporates a **vision for the use of non-regulatory tools** such as standards and assurance to improve AI outcomes. It commits to collaboration with partners such as the [UK AI Standards Hub](#) to develop these tools and support responsible innovation.

Challenges for UK AI regulation

There are significant gaps in the approach laid out in the White Paper that risk undermining the credibility of the UK's regulatory framework for AI – and therefore the UK's AI leadership.

Firstly, the proposed regulatory framework **inherits gaps in existing UK regulation, and therefore risks leaving prominent AI harms unaddressed.**

This could include, for example, harms arising from the use (or misuse) of general-purpose AI systems like GPT-4 or Google's LaMDA. These systems are not comprehensively covered by existing legislation or regulators, and the White Paper contains no new provisions for managing these harms.

We recognise that the governance of general-purpose AI systems is an emerging area of law and policy, and that the White Paper seeks views on this topic for future action. However, these cutting-edge systems are already being rolled-out to consumers at pace and deployed in high-stakes contexts such as recruitment and healthcare, as well as everyday software like search and office suites.

An additional consequence of the White Paper's reliance on the existing regulatory framework is that AI harms arising from unregulated or only partially regulated practices may remain unaddressed. This could include, for example, the use of AI in recruitment and employment. These sensitive practices are not covered by comprehensive regulation; rather, different aspects are monitored and enforced by a patchwork of regulators. For example, it's unclear whether *any* regulator would be responsible for ensuring 'appropriate transparency and explainability' (Principle 2) of AI video interview systems used in recruitment. From a jobseeker's perspective, there may be no authority obliging their prospective employers to even tell them an AI system is being used, or that the system works accurately.

The Government envisions a timeline of at least a year before the *first* iteration of the new AI regime is implemented and the effectiveness of the framework is assessed. Given the severity of the risks posed by AI use in these contexts, we would like to see more urgent action to ensure they do not go unaddressed.

Secondly, **the new regulation is underpowered**, lacking both statutory backing and adequate resourcing for regulators. The Government has said that it anticipates bringing forward legislation in the future, but AI technologies already having real-world impacts today.

Without new legislation, regulators cannot be obliged to enact the principles set out in the White Paper. It is likely that regulators will deprioritise or even ignore the White Paper's AI principles if it interprets them as in conflict with their statutory duties. The White Paper itself acknowledges this, saying that some regulators have warned they may 'lack the statutory basis to consider the application of the principles'.

Regulators may need new statutory powers to discharge some of their new responsibilities around AI. As highlighted in our [Regulate to innovate](#) paper, in order to conduct technical audits of an AI system, regulators will need the ability to access, monitor and audit specific technical infrastructures, code and data underlying a platform or algorithmic system.⁵

⁵ 'Regulate to innovate', Ada Lovelace Institute, November 2021, <https://www.adalovelaceinstitute.org/report/regulate-innovate/>.

Regulators vary significantly in their overall level of resourcing and their digital capabilities, a ‘capability gap’ which the White Paper acknowledges. While some – particularly those that are members of the [Digital Regulation Cooperation Forum](#) (DRCF) – already have a high level of digital maturity, others do not and will be disadvantaged in their attempts to implement the White Paper’s proposals. This risks worsening the uneven and fragmentary regulatory landscape around AI in the UK.

While the introduction of new central functions to support horizon scanning, risk assessment and other regulatory functions is a partial solution to this challenge, we are concerned that this will not be adequate. The most digitally mature regulators in the UK currently boast teams of fifty or more data and AI specialists, and it is unlikely the new central government functions will replicate this level of support.

Finally, **the Government’s reforms to data protection risk undercutting the new AI regulatory framework** before it is even in place by weakening protections against automated decision making, profiling and misuse of emerging technologies.

The UK GDPR – the legal framework for data protection currently in force in the UK – provides protections which are vital to protecting individuals and communities from potential AI harms. The reliance of the White Paper framework on existing legislation and regulators makes it even more important that underlying regulation like data protection governs AI appropriately. Unfortunately, the [Data Protection and Digital Information \(No. 2\) Bill](#) (henceforth the ‘DPDI Bill’), which is currently before Parliament, weakens these protections significantly.

Under current law, data that has been collected for one purpose cannot be reused to train AI models except in certain circumstances. The DPDI Bill expands these circumstances to include any usage that can ‘reasonably be described as scientific’. We are concerned that this definition is overly-broad and open to abuse: it could include, for example, pseudo-science such as phrenology; unreliable and experimental AI applications claiming to predict an individual’s religious or political persuasion; or marketing activities that do not meet a consensus definition of scientific research.

The UK GDPR also gives individuals the right not to be subject to ‘legal or similarly significant’ decisions based solely on automated processing. The DPDI Bill introduces new definitions of the terms ‘automated decision making’ and ‘significant decision’ which we believe are less clear and specific than the definitions found in the UK GDPR. We are concerned that increasing complexity in this area could result in worse outcomes for individuals impacted by the involvement of AI systems in significant decisions about them. It could also expose businesses to fines and reputational damage, disincentivising them from deploying such systems in the first place. The reframing of the provisions as a right rather than ‘prohibition with exceptions’ shifts responsibility from the data processor to the data subject to ensure the rules are complied with.

The effectiveness of data protection legislation is heavily reliant on the ability of independent data protection authorities to issue guidance, investigate complaints and enforce fines for non-compliance. We have concerns that changes proposed in the Bill would undermine the independence of the ICO, for example by giving the Secretary of State the power to approve or reject novel guidance issued by the regulator – which the AI White Paper framework envisions regulators doing frequently.