Unlocking innovation

The key to the UK's approach to AI regulation

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Introduction

The rapid advancement of artificial intelligence (AI) promises to bring huge benefits to a wide range of sectors from health to commerce. However, with it comes complex ethical, social, and legal challenges that call for policymakers to find the right balance between the risks and rewards of the new technology as it develops.

Prime Minister Rishi Sunak has voiced his determination to make the UK the best place in the world to build, test and use AI technology and plans to host a global summit on AI safety in November. In recent years, the government has published a series of documents outlining its approach with the aim of enabling AI to flourish in the UK in a safe way, culminating in the March 2023 white paper "A pro-innovation approach to AI regulation". In contrast the European Union, which is developing a landmark piece of legislation to regulate the use of AI according to the risk it poses, the UK approach looks to empower existing sector regulators to regulate the application of the new technologies in their respective areas of activity.

This Dods UK Political Intelligence report provides a one-stop guide to the UK's approach to regulating AI, including key details of its policy plans set out in the white paper, reaction from a range of stakeholders, comparisons with other regulators, and expected next steps.

The "pro-innovation" approach

Prime Minister Rishi Sunak has made no secret of his ambition for AI. In June, on a visit to Washington DC for talks with President Joe Biden, the prime minister announced the UK would host the first major global summit on AI safety, which is due to take place on 1-2 November at Bletchley Park. A couple of days later, he told London Tech Week in a keynote speech, "I want to make the UK not just the intellectual home but the geographical home, of global AI safety regulation."

The UK's approach to the new technology, which promises to bring huge benefits to managing data in a range of sectors from medicine and commerce to weather forecasting, has developed rapidly in recent years. Its 2017 Industrial Strategy pledged to put Britain at the forefront of the global AI and data revolution, saying it had the potential to add £232bn to the UK economy by 2030. In 2021 the government published its first National AI Strategy, which it said marked a step-change in its approach and set out a 10-year plan for harnessing the technology. AI has also featured in a growing range of policy documents and plans, ranging from its 2021 Innovation Strategy, 2020 National Data Strategy, and 2022 Digital Strategy – and is one of the five critical technologies listed in the government's 2023 UK Science and Technology Framework which aims to make the UK a science and technology "superpower" by 2030. At the same time, the government's AI ecosystem has grown, spearheaded by the Office for Artificial Intelligence, a unit within the Department for Science, Innovation and Technology (DSIT) which was created in February 2023. Building on the UK's rich legacy of digital innovation, the Office for AI has a three-pronged mission to invest in AI, help the technology develop in the economy, and ensure the UK has the right national and international governance. More recently, the government created the AI Foundation Model Taskforce with an initial £100m investment to accelerate the development of AI systems that manage huge data sets like ChatGPT or Google Bard, adding to £900m investment into compute technology in the 2023 Budget.

In March 2023 the government published its most developed plan for AI regulation to date. The white paper, called "A pro-innovation approach to AI regulation", set out plans for the UK's existing regulators--such as the Health and Safety Executive, Equality and Human Rights Commission (EHRC) and Competition and Markets Authority (CMA)--to manage the use of the technology in their respective areas, rather than create a new standalone AI regulator or set of specific rules. The approach aims to create a framework that can be flexible enough to adapt and avoid stifling innovation or investment as the technology develops in the years ahead.

The white paper outlines the following five principles that regulators should follow to guide the safe and innovative use of AI:

- **safety, security and robustness:** applications of AI should function in a secure, safe and robust way where risks are carefully managed

- **transparency and explainability:** organisations developing and deploying AI should be able to communicate when and how it is used and explain a system's decision-making process in an appropriate level of detail that matches the risks posed by the use of AI

- **fairness:** AI should be used in a way which complies with the UK's existing laws, for example the Equality Act 2010 or UK GDPR, and must not discriminate against individuals or create unfair commercial outcomes

- **accountability and governance:** measures are needed to ensure there is appropriate oversight of the way AI is being used and clear accountability for the outcomes

- **contestability and redress:** people need to have clear routes to dispute harmful outcomes or decisions generated by AI

The government also plans to establish the administrative infrastructure to support regulators to follow the principles, including by monitoring and evaluation of the overall regulatory framework's effectiveness; assessing and monitoring risks across the economy arising from AI; monitoring emerging AI trends and working with industry to inform a coherent regulatory response; supporting initiatives to help AI innovators bring new technologies to market; providing education and awareness to businesses and citizens; and promoting interoperability with regulatory frameworks in other countries.

The government has since run a consultation to attract views on the white paper which closed on 21 Jun 2023. The AI policy document was informed by a work programme kicked off in the Chancellor's Autumn Statement 2022 to advise how the UK could better regulate emerging technologies. That study, which was led by Sir Patrick Vallance, the Government Chief Scientific Adviser and National Technology Adviser, resulted in the policy paper in March "Pro-innovation Regulation of Technologies Review: Digital Technologies". The government accepted the paper's recommendations, which included clear and ambitious timelines and focus on accountability and transparency. It recommended that the government work with regulators to set up a multiregulator sandbox for AI within six months.

Reaction

While AI promises transformative benefits across a wide range of sectors, it has also fuelled concerns in equal measure, including about its impact on the labour market, privacy, and loss of human oversight and accountability. As Michelle Donelan, Secretary of State for Science, Innovation and Technology, acknowledged in the foreword to the white paper, a chatbot being used to produce a summary of a long article presents very different risks to using the same technology to provide medical advice. Leading technology sector figures have warned of the risks in recent months, with many putting their name to a US Centre for AI Safety statement that says mitigating the risk of extinction from AI should be a global priority alongside other risks such as pandemics and nuclear war. Other sector heavyweights, such as X (formerly Twitter) chief Elon Musk and Apple co-founder Steve Wozniak, signed an open letter in March led by Future of Life Institute calling for all AI labs to immediately pause the training of AI systems more powerful than GPT-4 for at least six months.

In August 2023, the House of Commons Science, Innovation and Technology Committee published an interim report which urged the government to move quickly to introduce legislation to bolster its efforts to establish a governance regime for the technology. The committee listed 12 challenges of AI governance it said policymakers in all jurisdictions should address, including that AI could introduce or perpetuate biases, allow the generation of material that deliberately misrepresented behaviour, opinions or character, and that the emerging technology required very large datasets that were only held by a few organisations. It said the AI white paper should be welcomed as an initial effort to engage with the complex task of regulating AI, but its proposed approach was already at risk of falling behind the pace of development of the technology. This threat was made more acute by the efforts of other jurisdictions, principally the EU and US, to set international standards.

"Our view is that a tightly-focussed AI Bill in the next King's Speech would help, not hinder, the Prime Minister's ambition to position the UK as an AI governance leader. Without a serious, rapid and effective effort to establish the right governance frameworks—and to ensure a leading role in international initiatives—other jurisdictions will steal a march and the frameworks that they lay down may become the default even if they are less effective than what the UK can offer,"

While experts are not predicting the development of AI will lead to a doomsday scenario of computers taking over the world, the UK's white paper acknowledges the importance of building public trust in the technology. A joint national survey published in June by the Ada Lovelace Institute and The Alan Turing Institute, two organisations at the forefront of the technology, found that 62 percent said they would like to see laws and regulations guiding the use of AI technologies, 59 percent said that they would like clear procedures in place for appealing to a human against an AI decision, and 56 percent wanted to make sure that 'personal information is kept safe and secure'. While many respondents said several uses of AI were beneficial, particularly in health sector, others voiced concerns about uses in advanced robotics such as driverless cars and autonomous weapons.

One of the key fears is the potential for AI to automate tasks and lead to redundancies in sectors where workers carry out routine or repetitive tasks, such as manufacturing, logistics, and customer service. In its response to the government's consultation, the Trade Union Congress (TUC) said it was a serious omission that the AI White Paper did not provide specifically for the workplace, and called for public funding to support unions in training workers in the use of AI and its implications. Trade unions have also voiced concerns that a lack of sufficient AI-related skills among workers could create skill gaps, hindering effective utilisation of AI systems and impeding industry competitiveness.

"Although we support the importance of the principles outlined in the AI white paper, we believe the government's proposals are inadequate and do not meet the urgent and pressing need for regulation of the use of AI at work and beyond," the TUC said.

Privacy and security are also key concerns about the use of AI applications, some of which rely on the collection, storage, and utilisation of vast amounts of data. Some stakeholders have also raised concerns about the government's Data Protection and Digital Information (No. 2) Bill, which had just completed public bill committee stage in the Commons before the summer recess. The proposed legislation removes the prohibition on many types of automated decision, instead requiring data controllers to have safeguards in place, such as measures to enable an individual to contest the decision.

In its response to the consultation, the Information Commissioner's Office (ICO) said it would welcome close collaboration with the government to ensure the AI White Paper principles are interpreted in a way that is compatible with the data protection principles to avoid creating additional burden or complexity for businesses.

UK industries are also wary of AI systems perpetuating biases present in historical data, leading to discriminatory outcomes. The fear is that AI algorithms, if not designed and monitored properly, may amplify existing societal inequalities or create new forms of bias, impacting decision-making and exacerbating ethical concerns.

In its strategic plan for 2022 – 2025, the Equality and Human Rights Commission identified AI as a core priority. They recognised that with the increased use of AI comes an increased risk of discrimination and threats to human rights in many areas of life, from recruitment to law enforcement.

The Labour party have yet to set out an alternative strategy for AI regulation. However, at London Tech Week in June, party leader Keir Starmer suggested the government could do more. "There's going to have to be an overarching regulatory framework of some sort. The government is talking about principles in legislation...I think we are going to need something stronger than that," he said. Starmer agreed there was huge potential for AI, but warned of risks including of misinformation, replacement of jobs, and the rapid advancement of the technology, and pledged to work with businesses to tackle those challenges and help people learn new skills.

International comparisons and cooperation

While the UK and EU share the ambition to enable AI to flourish safely in their respective jurisdictions, their approach to regulation is markedly different. The EU aiming to pass the AI Act before the European elections in mid-2024, the first major legislation on the technology by a major regulator (see the Dods EU Political Intelligence report). The legislation promises to classify AI applications and systems according to risk and regulate accordingly. The EU law would ban the use of AI in intrusive biometric surveillance, require greater transparency from generative systems like ChatGPT, but have minimal requirements on most AI applications such as email spam filters.

Despite the differences, both the UK and the EU prioritise data protection, encourage ethical development, and acknowledge the need for adaptive regulation. While the UK emphasises innovation and collaboration, the EU leans towards comprehensive regulation and stringent oversight.

Canada, through its proposed Artificial Intelligence and Data Act, takes a similar approach to the EU. Canada will not ban any AI applications outright and will instead require AI developers to establish

mechanisms that minimise risks and improve transparency, ensuring AI applications respect anti-discrimination laws and that their decision-making processes are clear.

The US has yet to propose a nationwide AI regulation. However, the government has issued a 'Blueprint for an AI Bill of Rights', a set of non-binding guidelines to promote safe and ethical use of the technology. These guidelines include better data privacy and protections against unfair decisions by AI systems. At the same time, individual states and city authorities are developing their own AI regulatory measures.

Other major economies, like Japan, India and Australia have issued guidelines on AI but have yet to pass any AI-specific legislation.

The White Paper emphasises the significance of international cooperation and collaboration. It outlines efforts to work collaboratively with international partners to shape AI governance, share best practices, and establish common standards that ensure the responsible and equitable advancement of AI technologies.

In the recently signed Atlantic Declaration: A framework for a twenty-first century US-UK Economic Partnership, the government states that they are committed to ensuring the US and UK continue to lead in AI. They intend to do so by collaborating on tangible research and development joint efforts, deepening public-private dialogue across priority technologies, jointly mobilising private capital towards strategic technologies and by improving reciprocal talent flows. Both nations have welcomed ongoing international engagement on AI in various forums including at the OECD, UN, Global Partnership for AI, Council of Europe, and International Standards Organisations, as well as the G7 Hiroshima AI Process.

Next steps

At the time of writing, the government had yet to publish the results or its response to the consultation on the AI White Paper which is expected to inform its next policy steps. In late August it announced that the prime minister's planned AI summit would take place on 1-2 November. The government said the summit would build on ongoing work at international forums and explore and build consensus on rapid international action to advance safety at the frontier of AI technology.

Some reports have raised the question of whether the UK is a big enough player to take a leadership role in developing AI governance, while others have wondered whether representatives from China—seen as the second most important AI market after the US—should be invited given ongoing security and privacy concerns. The UK claims to be the world's third AI power, with the technology contributing £3.7bn to the UK economy and employing 50,000 people across the country. "You would be hard-pressed to find many other countries other than the US in the western world with more expertise and talent in AI. We are the natural place to lead the conversation," Sunak told reporters in June.

Matt Clifford, CEO of Entrepreneur First and Chair of the Advanced Research and Invention Agency, and Jonathan Black, Heywood Fellow at the Blavatnik School of Government at the University of Oxford and a former UK G7 & G20 Sherpa, have been tasked with making the preparations for the summit, including rallying nations, companies and experts, the government announced in early August. In early September it set out five objectives for the summit: a shared understanding of the risks posed by frontier AI and need for action; a process for international collaboration on frontier AI safety; appropriate measures which organisations should take to increase frontier AI safety; areas for potential collaboration on AI safety research, including evaluating model capabilities and the

development of new standards to support governance; and to showcase how ensuring the safe development of AI will enable the technology to be used for good across the world.

About the Author

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Key questions for the webinar include:

- What are the biggest AI risks and rewards that UK and other regulators must consider?
- Has the UK got the right balance between AI risk and reward with its pro-innovation approach?
- Does the approach to AI regulation in the UK compare favourably with that of the EU and other major regulators?
- What can we reasonably expect the UK prime minister's planned AI summit to deliver?