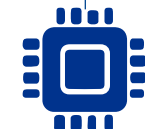


Spotlight on AI regulation

Key regulatory challenges
for the future of AI

August 2020



Opening statement

Artificial Intelligence, or AI, is accelerating. AI already permeates our day to day lives and now more and more businesses are turning to AI to improve efficiency, drive customer experience and remain competitive in their markets. In this paper, we look at the existing regulatory framework around AI, new AI strategies globally and explore potential future AI regulation.

AI has emerged as a hero in the COVID-19 pandemic, opening the public's eyes to the benefit but also potential risks of AI. Track and trace applications around the world have sparked debate, with the public now asking how their data is being used in a wider context. Data is the fuel of AI, and as such it holds a central position in the debate of whether AI requires an AI specific regulatory framework.

Existing data protection legislation around the world already offers some protection to personal data, however all too often businesses overlook it when developing their AI, opening themselves up to significant sanctions, and worse, erosion of customer trust.

To lead in a world where customers are rightly demanding more than just legal compliance and where trust is the most valuable commodity, businesses need to go above minimum legal standards by embedding legal and ethical controls as they develop their AI from the outset.



Nathan Cain

Partner
Technology Risk Consulting

Contact Info:
nathan.cain@kpmg.co.uk

Nathan leads KPMG's Technology Risk Team in the UK. Over his career, he has helped numerous companies navigate complex regulations through technology innovation, most recently focussing on emerging technologies, such as Artificial Intelligence.



Usman Wahid

Partner, Solicitor
KPMG Law

Contact Info:
usman.wahid@kpmg.co.uk

Usman is partner in KPMG Law UK and head of the Digital, Data and Technology team. Usman is a specialist technology and outsourcing lawyer with expertise in disruptive technology, including digital, AI and automation.



Dr Leanne Allen

Director,
FS Tech-Data

Contact Info:
leanne.allen@kpmg.co.uk

Leanne is a director in KPMG's FS Technology Consulting practice leading the data capability. She focuses on innovation in Data Ethics and also works with clients on Data Architecture, Data Management & Governance, reporting and Analytics.



Isabel Ost

Director, Solicitor
KPMG Law

Contact Info:
isabel.ost@kpmg.co.uk

Isabel is Director in KPMG Law UK and leads the Data Protection practice. Isabel has extensive experience advising on privacy and digital ethics in the context of high technology solutions, including Artificial Intelligence and machine learning.



Alex Peart

Senior Consultant
Emerging Technology Risk

Contact Info:
alex.peart@kpmg.co.uk

Alex supports clients with the safe and trustworthy adoption of Artificial Intelligence. He sits on KPMG's global Artificial Intelligence In Control group, where he has managed the development of KPMG's AI risk assessment framework.

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UK legislation

In the UK there is currently no AI specific legislation. This is because laws, by their very nature, have to be technology agnostic to ensure that future technology will still be subject to an overarching legal framework.

What we do have in the UK are a number of laws which business must comply with when developing and using AI, or any technology. These rules apply to the organisations developing the AI and programming the machines who are accountable for that programming and the decisions and outcomes it produces. Unfortunately, often, businesses assume these laws don't apply to AI, whereas in reality, individuals need and expect even greater compliance in respect of decisions made by machines.

While we focus on the UK in this paper, many of the laws shown below are reflected around the world, There are four key ones we will explore in further detail in this paper.

- The Equality Act 2010
- The Humans Rights Act
- Consumer Rights Act 2015
- Data Protection Legislation

Click each below to find further information.

Do we really need more legislation in the UK?

Primarily businesses to understand how these different laws work together to create a framework for development and use of AI, and apply them correctly. Once organisations understand the legal framework, using regulatory guidance to help them, they can consider the additional measures which they can put in place to ensure that data is treated correctly and ethically.





UK legislation (cont...)

The Equality Act 2010

This Act legally protects people from discrimination in the workplace and in wider society. Thus age, gender reassignment, being married or in a civil partnership, being pregnant or on maternity leave, disability, race including colour, nationality, ethnic or national origin, religion or belief, sex and sexual orientation are all pieces of information which are protected. Clearly this protection must be taken into account in the development of AI and its logic.

The risk of bias within AI was one of businesses top risks according to our pre event survey, and rightly so. It remains one of the most common reasons we see businesses entering news headlines. It's also important to remember that simply removing a variable, e.g. gender from your data set is not enough. Proxy variables can be used to quickly determine someone's gender, or any protected group, in the same way as if the data was labelled. The key here is continuous monitoring to ensure bias doesn't creep in where it isn't welcome.

Data Protection Legislation - General Data Protection Regulation (EU) 2016/679 (GDPR) and the Data Protection Act 2018

GDPR is an EU Regulation which sets out principles for good and responsible handling of personal data and gives rights to individuals in respect of their data. It applies directly in all EU Member States. Post Brexit, it is expected that the UK will implement a similar law.

In fact, around the globe we see 64% of countries have data protection laws, many of which follow very similar principles to the GDPR.

This Regulation contains the obligation to explain to people what you are doing with their data and to explain to individuals any automated decisions which are made about them, the logic behind those decisions and their right to object.

When it comes to designing AI, explainability is a top concern reported by businesses. Building this explainability into the design and development phases of the AI lifecycle are critical to ensure compliance with various regulations, including GDPR.

There are restrictions in the GDPR as to when decisions can be made by solely automated means.

The GDPR also requires organisations to build in data protection by design and to identify and address risk at the outset by completing Data Protection Impact Assessments. As such, organisations must build data protection into their AI right from the start, and not as an afterthought. This provides a window on compliance, and also avoids costly retrospective corrections.

Thus in the context of personal data it can be seen that Data Protection legislation already provides the cornerstone of AI regulation.



The Human Rights Act 1998

This Act sets out the fundamental rights and freedoms that everyone in the UK is entitled to, including the right to respect for a private life, the right to life, the right to be treated fairly.

Fairness is a fundamental area to focus on when it comes to AI, especially when it comes to ruling out unacceptable bias. We have covered the impact of bias in further detail under the Equality Act 2010.

Furthermore, when using technologies such as facial recognition businesses and governments need to consider how it might impact an individual's right to respect for a private life.

Consumer Rights Legislation

This legislation sets out the rights of individuals to choose and be informed, to choose and to be heard, have the right to redress and hold organisations accountable when it comes to development and use of AI. It has a significant impact on how businesses communicate or have a contractual relationship with individuals, especially if electronic, digital and/or automated means are used.

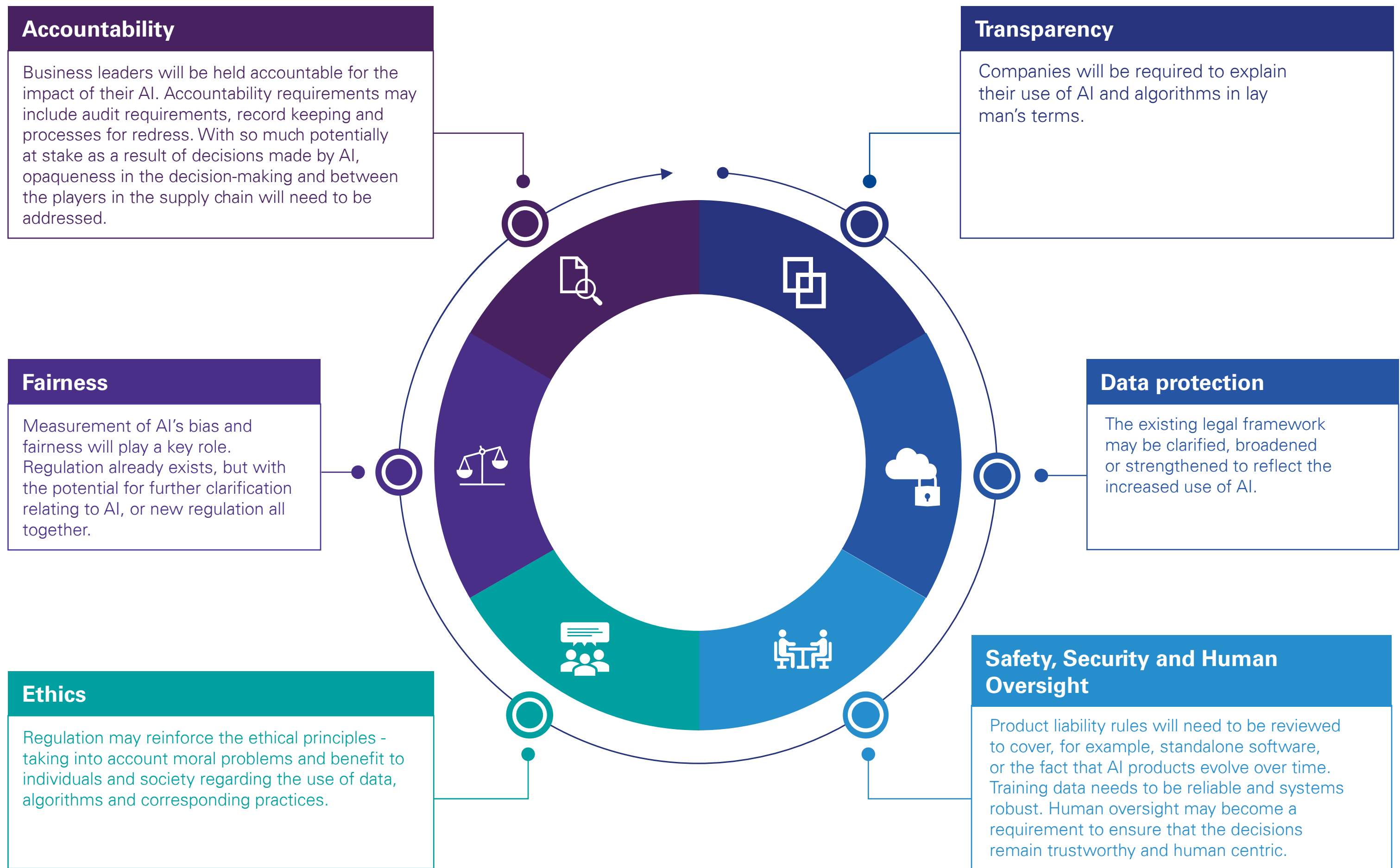
What might AI regulation involve?



If business want to avoid potentially stifling regulations, they need to be proactive and lead the way in how their AI is controlled.

We can expect new regulations to emerge in the coming years that will have an impact on AI, meaning businesses need to ensure they are ready. As we have seen with other recent regulations, it is too late to wait until regulation dictates certain controls or compliance. Businesses need to plan ahead and build compliance into their design. As we have already seen, customer trust can be damaged long before regulators apply sanctions to businesses, and not only will compliance with the laws be enough to gain this trust, but also ethics and good business practices will play a main role in the future of AI.

Based on existing guidance, strategies and points of view from KPMG experts we predict 6 key areas that will be the focus for upcoming regulation around AI. Businesses should consider each of these when developing their AI solutions.





AI Control Framework

KPMG's 'AI In Control' framework and suite of assets helps organizations address key inherent risks and misconceptions associated with Artificial Intelligence and Machine Learning. This, in turn, helps foster transparency and confidence in AI and serves as a foundation for innovation and new use cases.

AI In Control incorporates our AI/ML experience, a range of tools, and methodologies as well as our multidisciplinary capabilities around governance and risk management into one solution designed to complement your AI program and strategy.

Our solution helps organisations stand up a responsible AI program and build and evaluate sound AI/ML models to help drive better adoption, confidence, and compliance.

How KPMG accelerates AI success

Methodological checklist



A checklist which holds a set of criteria (per step in the development phase in the CRISP-DM model) which need to be met when a developer wants to build a proper AI solution. It is something similar to a quick reference card for trustworthy AI solutions.

Fairness metrics library



We have investigated multiple ways to measure fairness in AI models. Based on this, we created a standard set of metrics that could be used in different AI situations.

Peer review framework



Peer reviews can help to ensure AI model quality. The framework itself contains the peer review topics (and some guidance) plus more details on roles and responsibilities (who needs to review what, and when based on the risk profile).

AI purchasing conditions



These are a standard set of conditions that can be added to a contract with an external supplier of AI solutions. Ideally these are combined with Service Level Agreements (See SLA section).

General AI control framework



Set of standard risk and controls for AI developments and deployments which has been developed based on years of experience working in risk and control combined with expertise from data scientists from KPMG's global network.

AI SLA template



Set of standard reporting guidelines on outsourced AI solutions. Typically these are used to let the supplier report on certain metrics, such as who has access to the model, how much downtime was there, etc.

Methodological checklist



Standard training material to increase the awareness and knowledge about AI in your business, as well as educating developers and employees on appropriate controls which mitigate emerging risks.

AI GDPR Attention points



Summary of GDPR considerations, with a specific focus on AI solutions. For example, what data are you allowed to use and in what situations, and how should you act when using algorithms for automated decision making, etc.).

AI risk assessment guide



A standard risk assessment framework to calculate the risk of individual AI solutions.



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