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.

Contents

UK Legislation
Predicted AI Regulation
AI In Control Framework
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.

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 dataset 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. They 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 be able to 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 rights from the start, and not 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 reject for a private 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 aid to be heard, have the right to re-examine 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 businesses 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.

- **Accountability**: Business leaders will be held accountable for the impact of their AI. Accountability requirements may include audit requirements, record keeping, and processes for redress. With so much potentially at stake as a result of decisions made by AI, openness in the decision-making and between the players in the supply chain will need to be addressed.

- **Transparency**: Companies will be required to explain their use of AI and algorithms in layman's terms.

- **Data protection**: The existing legal framework may be clarified, broadened or strengthened to reflect the increased use of AI.

- **Fairness**: Measurement of AI's bias and fairness will play a key role. Regulation already exists, but with the potential for further clarification relating to AI, or new regulation all together.

- **Safety, Security and Human Oversight**: Product liability rules will need to be reviewed to cover, for example, standalone software, or the fact that AI products evolve over time. Training data needs to be reliable and systems robust. Human oversight may become a requirement to ensure that the decisions remain trustworthy and human centric.

- **Ethics**: Regulation may reinforce the ethical principles - taking into account moral problems and benefit to individuals and society regarding the use of data, algorithms and corresponding practices.
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).

- **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 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).

- **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.

- **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).

- **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 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).

- **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 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.

- **AI risk assessment guide**
  A standard risk assessment framework to calculate the risk of individual AI solutions.
The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2020 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative (“KPMG International”), a Swiss entity. All rights reserved.

KPMG LLP is multi-disciplinary practice authorised and regulated by the Solicitors Regulation Authority. For full details of our professional regulation please refer to ‘Regulatory Information’ at www.kpmg.com/uk

The KPMG name and logo are registered trademarks or trademarks of KPMG International. | CREATE: CRT128901A