

DP5/22 – Artificial Intelligence and Machine Learning

techUK response

About techUK

techUK is a membership organisation launched in 2013 to champion the technology sector and prepare and empower the UK for what comes next, delivering a better future for people, society, the economy, and the planet.

It is the UK's leading technology membership organisation, with more than 900 members spread across the UK. We are a network that enables our members to learn from each other and grow in a way which contributes to the country both socially and economically.

By working collaboratively with Government and others, we provide expert guidance and insight for our members and stakeholders about how to prepare for the future, anticipate change and realise the positive potential of technology in a fast-moving world.

Response Overview

Through consultation with techUK members across the organisation's programme workstreams (Financial Services, AI and Digital Ethics), techUK's initial response to [DP5/22](#) can be summarised as below:

- Any future regulatory approach to AI and/or Machine Learning (ML) within the financial services sector must be pro-innovation, risk-based and outcomes-focused.
- Regulators should look to acknowledge and strengthen existing regulation where necessary. Any potential new regulation or governance mechanisms must not replicate or contradict existing regulation. When considering whether new regulation is needed, lawmakers should focus on whether the use of AI/ML adds new risks beyond those risks already present when AI/ML is not in use. Where existing laws are insufficient to address AI/ML risks or otherwise create uncertainty about the application of AI/ML, lawmakers should generally amend existing applicable requirements rather than creating a separate framework for AI/ML.

- Following the FCA's Consultation Paper covering its plans to close the financial advice gap¹, AI can be used to provide low-cost tailored advice, helping to widen access to consumers.

Questions

Supervisory authorities' objectives and remits

Q1: Would a sectoral regulatory definition of AI, included in the supervisory authorities' rulebooks to underpin specific rules and regulatory requirements, help UK financial services firms adopt AI safely and responsibly? If so, what should the definition be?

In techUK's recent response to the Government policy paper: *Establishing a pro-innovation approach to regulating AI*², we highlighted that it is of vital importance that businesses can clearly identify whether the system they are developing would be defined as an 'AI system' and subject to the UK's regulatory regime. The Government's policy paper on *Establishing a pro-innovation approach to regulating AI* highlighted the need for an outcomes-focused approach to AI regulation, which we support.³ The Government's AI White Paper is expected to be published this year and we look forward to seeing the continuation of this approach.

AI regulations that rely on an overly broad definition of AI would sweep in socially beneficial, low-risk, and everyday tools, such as calculators, calendar software, ticket scanners, and scantron machines. Instead, Government needs to work closely with industry and other key stakeholders to develop a sectoral-wide definition of AI. This should be closely aligned to well-established definitions to ensure global coherence.

However, whilst a definition of AI might be useful for guidance, it is not our belief that this should be used to derive rules targeted specifically at this technology. We set out this argument in answer to further questions below.

Q2: Are there equally effective approaches to support the safe and responsible adoption of AI that do not rely on a definition? If so, what are they and which approaches are most suitable for UK financial services?

Members have not expressed a view in this area.

Benefits, risks, and harms of AI

Q3: Which potential benefits and risks should supervisory authorities prioritise?

¹ [CP22/24](#)

² [techUK's response to Government paper on AI regulation, 2022](#).

³ [Establishing a pro-innovation approach to regulating AI Government paper, 2022](#).

AI/ML tools are powering devices and software used across Financial Services (FS) to solve problems and create opportunities both in the private and public sectors in a number of areas, including: fraud detection, product personalisation, automation of legacy processes and manual document processing, improving customer experience, compliance and market surveillance. Algorithms can also be used to help examine, report, and mitigate discrimination and bias in machine learning models throughout the AI application lifecycle.

Benefits

Online Fraud

Online fraud has surged since the pandemic, with UK victims losing £1.3bn in 2021 and a 40% rise in push payment scams⁴. Beyond the financial loss, fraud can cause significant and ongoing psychological trauma for victims.

AI-derived solutions have the capability to detect, predict and prevent online fraud in real time. For example, AI algorithms can be used to analyse vast amounts of data to identify unusual patterns or suspicious behaviours and flag these for immediate investigation. AI technologies can also be used to protect individuals' digital identities online through innovative authentication systems that analyse thousands of data points during a login or online transaction to assess whether the user is who they claim to be.

The fraud landscape and tactics used by fraudsters are constantly evolving. Fraud prevention solutions must make use of innovative and leading technologies in order to stay one step ahead of emerging threats.

Supervisory authorities can play an important role in showcasing examples of best practice technologies that currently exist, and through supplementary guidance, to help tackle this critical issue that is affecting businesses and individuals across society.

Payment companies are using AI to enhance fraud prevention by analysing spending patterns, the times of previous payments, and other relevant data.

Improving customer experience and personalisation of services

The FCA has been seeking views on how to close the so-called financial advice gap through a recent consultation paper⁵, and recent research shows that the advice gap is getting larger. In 2021, only 7% of adults sought financial advice compared to 10% the previous year. The value of advice cannot be overstated; 90% of those in receipt of it found it helpful⁶. Advice, compared to general guidance is expensive to provide because of the resourcing of people to provide it and the cost of complying with regulation.

⁴ [UK victims lost £1.3bn in 2021 amid surge in online fraud, new data shows | Scams | The Guardian.](#)

⁵ [CP22/24.](#)

⁶ [The Advice Gap 2021.](#)

Tailored guidance, using tools making use of both AI/ML can, with appropriate safeguards in place, help to bridge this gap. With ever enriched data being made available, not least through Open Banking, there are more opportunities than ever to be able to help consumers make better decisions about their finances; however – the significant cost of regulation remains. Through this work, there is an opportunity for the FCA to consider how rules which were written with human advice in mind, might be adapted to unleash the potential that AI can bring to customers; helping them to become more financially informed and resilient to shocks.

Improving customer experience has been a key focus for FS institutions over the last few years and includes areas such as a seamless account opening process, a more efficient loan or claims processing workflow, and interacting with the customer using their preferred communication channel: web, mobile, chat, voice, email. This continues to be a competitive area where businesses are racing to provide their customers with a frictionless experience while ensuring that the appropriate security and regulatory measures are implemented. And in insurance, firms are using AI and ML for claims processing, benefiting from automation and generating an overall better customer experience.

In banking, firms are enhancing customer experiences through chatbots and customised product recommendations that can help connect customers to financial products and services and optimize the approval process.

In the capital markets space, AI is helping firms optimise their investment portfolios by analysing alternative datasets and improving business operations by automating expensive, manual, and time-consuming tasks, leading to improved business competitiveness and service. AI can facilitate pre-trade analytics that help traders optimize the timing of future trades through simulations based on historical data.

Equally, another recent trend has been young people increasingly investing money to help build their future. The Royal Mint's 2022 Gen Z Investment Report has revealed the overwhelming majority (80%) of 16- to 25-year-olds now dedicate a portion of their income to investing in their future, with £9.4 billion set to be invested during the upcoming financial year⁷. In order to facilitate this, an increasing number of trading apps and services have become established; however, their use is not always combined with advice. Financial advice is expensive and not often taken up by this demographic. However, being able to provide tailored guidance would provide assistance to make the right investment decisions. AI tools which do this are available but are hampered by regulation which classifies the suggestions as advice.

AI will also be an important tool as firms seek to provide personalised advice to consumers as well as complying with the forthcoming consumer duty – suggesting other products or services that might be more appropriate to that customer.

In terms of challenges, it is important that the FCA helps firms by producing guidance which can be used to, for example, detect and mitigate societal bias from decision-making.

⁷ [The Royal Mint's 2022 Gen Z Investment Report](#).

Regulators should work with industry, including trade bodies such as techUK to help design this guidance and regularly review it to assist firms in providing good outcomes that are consistent and in accordance with existing principles-based rules.

Q4: How are the benefits and risks likely to change as the technology evolves?

The unprecedented pace of change is causing financial institutions of all sizes to increase agility and accelerate innovation; artificial intelligence and machine learning are at the heart of this innovation. Over the next few years AI is expected to become more prevalent across all sectors and industries. The expansion of this technology into areas such as generative AI will also make the technology more widely available and accessible to the general public for an abundance of different uses and applications. As this technology becomes more widely accessible, greater regulatory capacity, through upskilling and training of both users and regulators, will be essential to strengthen the UK's ability to govern AI. This would also help in supporting groups with protected characteristics through the application of AI.

Another important point to consider is that technologies such as machine learning are iterative, constantly improving and developing in response to the outcomes generated. With this in mind, the use of this technology lends itself to a risk-based rules system given the changing nature of what the technology is doing.

Further, a principles-based, outcomes-led approach that is focused on specific high-risk uses and informed by global technical standards will allow regulation to adapt and change to developments associated with this technology, something that is inherently more difficult with a rules-based approach. We support a standardised approach to risk identification that focuses on uses of AI that pose significant risks of material harm to fundamental rights, health, and safety of citizens.

Q5: Are there any novel challenges specific to the use of AI within financial services that are not covered in this DP?

The financial services sector is highly regulated compared to many other areas of the economy. Appropriate and proportionate regulation is vital; however, there is a balance to strike in order to reduce the risk of stifling innovation. It is very welcome that the FCA has created a regulatory sandbox in which to test new innovative products and services that might sit outside of current regulatory frameworks in a safe and controlled environment. These sandboxes, where used effectively, can help to inform how new rules might be created or existing requirements modified. Whilst this is not a challenge, we felt it important to note that this provides the sector with a key advantage that should be employed to help drive innovations which ultimately benefit customers. However, whilst sandboxes are a useful tool it's essential that industry engagement is also maintained and business model neutral and technology neutral approaches are used.

Q6: How could the use of AI impact groups sharing protected characteristics? Also, how can any such impacts be mitigated by either firms and/or the supervisory authorities?

The use of data, particularly that relating to persons with protected characteristics, is already heavily regulated – not least under GDPR which was incorporated on to the Statute Book through the Data Protection Act 2018.

Those employing AI technologies are aware of risks with unintended biased on the decision-making process and have recognised the need to monitor for potential negative impacts. This is an area where clear guidance from regulators can also help, and we expect to see this develop as further rollout of AI-enabled products and services continues. Anonymous case studies can often bring these examples to life and can be a useful tool to enable firms to understand how pitfalls can be avoided.

Q7: What metrics are most relevant when assessing the benefits and risks of AI in financial services, including as part of an approach that focuses on outcomes?

We believe that assigning a metric to the benefits and risks of AI is not appropriate in this context, although we understand regulators' reasons to investigating if one could be found. It would be both ineffective and difficult to determine a metric which may prove to be misleading and stifle innovation. Instead, we are of the belief that the same activity should have the same regulation – sticking to the same principles-led approach that the FCA follows to conduct regulation.

Regulation

Q8: Are there any other legal requirements or guidance that you consider to be relevant to AI?

The use of AI is subject to a range of laws, regulations and consumer protections, for example, GDPR includes specific requirements around 'automated decision-making' and the broader processing of personal data. Many additional legal requirements are also made at the sectoral-specific level.

In relation to GDPR, there is a need for adding clarity regarding legitimate interests, and improving access to data for training purposes would benefit businesses and customers alike.

In techUK's recent response to the Government policy paper: *Establishing a pro-innovation approach to regulating AI*⁸, we recommended that Government conducts and publishes a review of existing policy, guidance, standards, and regulation relating to AI governance across sectors and international jurisdictions, identifying current overlaps and gaps.

Q9: Are there any regulatory barriers to the safe and responsible adoption of AI in UK financial services that the supervisory authorities should be aware of, particularly in relation to rules and guidance for which the supervisory authorities have primary responsibility?

⁸ [techUK's response to Government paper on AI regulation, 2022](#).

Members have not expressed a view in this area.

Q10: How could current regulation be clarified with respect to AI?

Across the regulatory landscape, members are experiencing an overlap in regulatory guidance. techUK, therefore, recommends that Government conducts a mapping exercise to identify existing regulations with respect to AI, where there are areas of overlap and potential gaps. It would be particularly useful to provide an analysis of the regulatory work in the UK and possible interactions with ongoing debates in AI regulation and policy at the level of the European Union as well as the OECD, Global Partnership on AI, and Council of Europe where the UK is a Member and a Convention is under discussion on AI, human rights, democracy, and the rule of law.

Q11: How could current regulation be simplified, strengthened and/or extended to better encompass AI and address potential risks and harms?

As referenced in answers above, guidance should be issued to firms to help them deploy AI solutions in a safe and effective way. Additionally, we also believe that tailored guidance enabled by AI can significantly help to bridge the advice gap – but only if this is not caught under the costly and burdensome regime of financial advice.

techUK also recommends the establishment of cross-regulatory working groups to agree on risk categorisation and assurance requirements for specific AI technologies which would benefit from alignment. Harmonisation between subject-matter expert regulators is critical, with a centralised body that can provide guidance across sectors to assist as needed. We also recommend leveraging platforms for multi-stakeholder engagement, such as the Office for AI and the Centre for Data Ethics and Innovation, to encourage dialogue between regulators and industry/start-ups, civil society, and AI/ML specialists. We also understand that the ICO is pursuing its own work on how to regulate providers of "AI as a service." This is an area of strength for the UK, and an aligned regulatory environment will be key for firms to expand. We encourage DCMS and the ICO to align their workstreams to avoid duplication of effort and possible regulatory fragmentation or divergences. For risk management, it is also important to leverage international and industry supported standards on the subject.

Finally, we recommend that Government conducts and publishes a review of existing and upcoming policy, guidance, standards and regulation relating to AI governance across sectors and international jurisdictions, identifying current overlaps and gaps.

Q12: Are existing firm governance structures sufficient to encompass AI, and if not, how could they be changed or adapted?

See answer to Q14 below.

Q13: Could creating a new Prescribed Responsibility for AI to be allocated to a Senior Management Function (SMF) be helpful to enhancing effective governance of AI, and why?

See answer to Q14 below.

Q14: Would further guidance on how to interpret the 'reasonable steps' element of the SM&CR in an AI context be helpful?

We have chosen to answer questions 12, 13 and 14 together.

Adoption thrives on clarity and certainty. In our response to the Government's AI Governance policy paper, we highlighted the need for formalised structures to coordinate approaches between regulators, for example through an expanded Digital Regulation Cooperation Forum.

There may also be specific AI technologies that would benefit from smaller working groups of regulators to secure even greater levels of alignment - for example, live facial recognition. To reach agreement, the working groups should conduct multi-stakeholder engagement.

In terms of where responsibility sits with consideration to SM&CR, this should not be treated any differently to how activity is currently assessed. The purpose of the existing first and second-tier rules is still applicable, whether a decision has been powered by human or machine and therefore no additional responsibilities for individuals should be required.

Q15: Are there any components of data regulation that are not sufficient to identify, manage, monitor and control the risks associated with AI models? Would there be value in a unified approach to data governance and/or risk management or improvements to the supervisory authorities' data definitions or taxonomies?

The focus of this question is relevant only in a proposed rules-based regulatory approach, of which only firm-specific regulation would be required in specific applications of AI. This would not be something that techUK advocates for reasons previously stated.

However, an AI specific forum for both firms and digital technology suppliers could ensure cross-sectoral coordination on developing an AI model. It would also be important to ensure that any work undertaken in this area is complementary to work by the Digital Regulation Cooperation Forum (DRCF). Digital and tech sit horizontally across many sectors and there is potential for several regulators to be applying different rules to the same item, or for a regulator in one sector to cause issues or changes in another, different sector. Finding a path through this is important to allow innovation to thrive, and the DRCF is one mechanism that might help to do this.

Q16: In relation to the risks identified in Chapter 3, is there more that the supervisory authorities can do to promote safe and beneficial innovation in AI?

As described above, a potential cross-sectoral AI specific forum, such as the Centre for Data Ethics and Innovation's AI assurance roadmap⁹, could help regulators understand examples to guidance's and principles. Any new measure must be created after a mapping exercise of the AI regulatory landscape to provide clarity and prevent the overlapping of regulation.

Q17: Which existing industry standards (if any) are useful when developing, deploying, and/or using AI? Could any particular standards support the safe and responsible adoption of AI in UK financial services?

To achieve as much positive influence as possible, the UK also needs to stay closely engaged with the creation and adoption of international AI standards, which will come to play a major role in regulatory compliance with, for example, the EU AI Act. Notably, standards developed in the ISO/IEC JTC 1 SC 42 have an important, horizontal role to play in the Financial Services Sector. CEN/CENELEC is currently mandated by the European Commission to develop harmonised standards for the EU AI Act. Leveraging ISO/IEC standards for this development will allow global interoperability that is important for the UK financial sector which is considered as a hub with international connections.

The creation of an AI Standards Hub Pilot is a welcome beginning for broader sector understanding of and engagement with standards processes, and will help UK businesses to be on the front foot as more regulators across the world may look to AI standards to verify compliance. This is particularly important in light of the EU standardisation strategy reforming the EU's standardisation system, and potential challenges this may pose to interoperability between the UK and EU markets in terms of compliance and certification

Q18: Are there approaches to AI regulation elsewhere or elements of approaches elsewhere that you think would be worth replicating in the UK to support the supervisory authorities' objectives?

We would like to highlight in our response that the Financial Services and Markets Bill contains provision for a secondary objective for international competitiveness which would apply to the PRA and FCA. These clauses are not overly contentious and enjoy wide support, yet, are not mentioned in this context in the consultation. It is important that the FCA maps existing regulation that may apply to AI in financial services to have visibility when making any assessment as to how regulations in the UK compares to that in other jurisdictions.

Q19: Are there any specific elements or approaches to apply or avoid to facilitate effective competition in the UK financial services sector?

Any future regulatory approach to AI/ML within the financial services sector must be pro-innovation, risk-based, context-specific and outcomes-focused; leaning on the deep expertise within our existing regulatory regime.

⁹ [Centre for Data Ethics and Innovation's 2021 roadmap](#).

Generally, when developing standards, regulators must ensure clear guidance to help both large and small companies remain compliant when entering the market. While in a high-stakes industry like financial services, a high bar to entry may prove necessary, it is important to ensure that companies, large and small, are provided with clear guidance to ensure they have a solid understanding of what is expected of them and what they need to do to remain compliant. As such, the FCA should consider how it would apply this in practice, potentially using existing mechanisms in place to deal with firms of varying sizes. In addition, we would recommend Government to encourage and oversee the development of an effective AI assurance market by working with industry to develop consistent and transparent requirements catering to different levels of risks and AI lifecycle stages.