

Office for Artificial Intelligence  
Department for Science, Innovation and Technology

By email: [evidence@officeforai.gov.uk](mailto:evidence@officeforai.gov.uk)

21 June 2023

Dear Sir/Madam

### **A pro-innovation approach to AI regulation**

We welcome the opportunity to comment on the Government's planned approach to the regulation of Artificial Intelligence and the principles that inform it.

### **Our regulatory role**

We are the UK's independent, statutory regulator of nursing and midwifery professionals. Our purpose is to promote and uphold the highest professional standards to protect the public and inspire confidence in the professions. Our vision is safe, effective and kind nursing and midwifery that improves everyone's health and wellbeing. Our core role is to regulate. To regulate well, we support our professionals and the public. Regulating and supporting our professionals allows us to influence health and social care.

Modern care is based on teamwork that crosses traditional professional boundaries, so we work with other health and care regulators to develop consistent ways of regulating. By working together, we can collect and analyse useful data and share intelligence to help inform decision making.

Health and care is an area where we expect to see a rapid expansion in the use of AI in the coming years. While it is unlikely we will be involved in the direct regulation of AI, we need to be alert to the changing demands this places on the professionals we regulate and aware of any new skills, competencies and behaviours they require to ensure the provision of safe, kind and effective care.

As part of achieving this, we are currently considering the potential of AI in health and care in more depth within the NMC as part of the development of our 2025-30 strategy, alongside the rapidly changing nature of technology, digital and data in how professionals work and people access care. As a result, our thinking on this issue is evolving and not yet finalised. However, we have responded to the key themes from the consultation and the questions posed in line with the general principles that we expect

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We're the independent regulator for nurses and midwives in the UK, and nursing associates in England. Our vision is safe, effective and kind nursing and midwifery practice that improves everyone's health and wellbeing.

Registered charity in England and Wales (1091434) and in Scotland (SC038362)

to apply in our future approach to AI. This is in keeping with our current values, strategy and the expectations we set for our professionals in our standards and Code.

### **Regulator capabilities and how we may use AI**

As AI becomes more integrated into the health and care system, professional regulators may need more ready access to AI expertise to assess the role that AI has played and the potential culpability during fitness to practice proceedings. It may not be possible for each regulator to have in-house experts on all AI systems in use, and so support in accessing these, potentially through the suggested pooled team of experts, would be valuable. However, it is difficult to say at this point how much we would need to rely on such a resource and we will need to develop internal expertise to ensure the AI we implement is right for our needs. More provisions for capacity-building and training for regulators to understand and handle AI technologies and associated issues may also be helpful.

One of the challenges we foresee with the growth of AI in healthcare is the rapid pace of change and therefore the evolving skillset that will be required of healthcare professionals. It may not be possible for regulators to respond to every development, or to issue specific guidance on the use of each type of AI or how we expect it to be reflected in curricula. While we aim to embed core principles throughout our standards and Code, including expectations around adapting to new technologies, health and care professionals may need ongoing education and training to understand how to use them effectively and ethically and the proposals could include more about how this could be supported. We will need to consider in more detail how we and the professionals on our register keep pace with this change.

It is possible that the NMC could look to make use of AI and machine learning in the future to help with our own regulatory processes, for instance, to help with the initial assessment of complaints about people on the register. We will also be exploring the use of generative AI to augment how people work. As noted, we are in the process of developing our next corporate strategy in which we will consider how we are going to further engage with and make use of AI, technology and digital developments.

We need to think more ourselves about how AI could cause harm, what we expect from our registrants, stakeholders and of ourselves to mitigate against these risks, and how we want to address the situation when something does go wrong due to AI. This will in turn shape how we might look to learn, improve, and set things right when AI has either actively or passively caused harm. We will continue to engage with the Government and other regulators as we consider this.

### **The revised cross-sectoral AI principles**

We are broadly supportive of the five core principles set out in the AI white paper. These align closely with the risks we have identified in our early discussions around the use of AI by health and care professionals.

## Safety, security and robustness

Safety and security will be central to allowing the use of AI in health and care settings, particularly for regulators who have a remit to protect the public. AI, and system for regulating it, will need to be kept under continual review, while acknowledging the benefits that it can bring to patients and health and care staff. Our primary concern around AI is likely to be how the professionals we regulate use it and where the accountability lies when AI is being used as part of the delivery health and care services. We also want to ensure that AI aligns with the needs and preferences of the public when they access health and care services. Including within the principles the need for AI to be patient-centered in health and care settings could be beneficial and help ensure that it is used as safely as possible.

## Appropriate transparency and explainability

The principle of transparency is essential - we need to know when AI is being used by both professionals and organisations and what it is intending to achieve, especially when we are investigating mistakes and harm to patients. This should also include being clear about the AI's intended function and its potential risks and benefits. When mistakes are made it is vital that it is easy to identify why and how the AI model has not functioned as intended so that risks to patient safety can be minimised.

Similarly, if AI is to be used to assist in the diagnosis and treatment of patients, it must be possible to interrogate and understand why it makes any recommendations and so the principle of explainability is vital. We would expect health and care professionals to make the final decision following any AI recommendation but having confidence in and an understanding of how AI decisions and recommendations have been reached will make this easier and safer and help to maintain public trust in services and professionals.

## Fairness

We agree with the principle of fairness, mirroring one of our own core values, and with embedding the concept around equality and human rights. It is vital that this also includes avoiding any potential discrimination that could arise from the use of AI and the proposal might address how to ensure AI systems work effectively for all individuals, regardless of age, gender, race, or other characteristics. Depending on the models and the data that is used to train them, there is a risk of unintentionally entrenching or exacerbating existing inequalities.

It would be good to see an explicit focus on the privacy of sensitive health and EDI data in the final principles, which is particularly relevant to the health and care sector, as well as a clear set of ethical guidelines setting out how to manage issues such as bias in AI algorithms, data privacy and consent. For instance, the use of AI in mental health is a rapidly growing area, but it comes with unique challenges, including sensitive issues

around data privacy and the potential for harm. The final proposals could include specific considerations for the use of AI in mental health settings.

### Accountability, governance and redress

Accountability and governance, and contestability and redress, are important parts of any regulatory system, particularly in learning from mistakes and preventing them from happening again. To this end, the relationship between technology companies and regulators, and how data is shared between them, when harms occur will need careful consideration. When that data is shared, there will need to be clear and established expectations of how it is handled and how problems are investigated.

At a more fundamental level, we will need to consider how AI-related harm is defined, and what delineates this from user error before any process for redress can be undertaken. Given the complexity of AI technologies, there is a need for more accessible and effective mechanisms to handle complaints and disputes.

### **New central functions to support the framework**

A central function could play a helpful role in facilitating co-ordination between regulators and assisting in the identification of emerging issues. Co-ordination between regulators is going to be essential to ensure that AI is regulated effectively. In healthcare, for instance, it is possible that any flaws with an AI model will be identified if it frequently features as part of fitness to practice proceedings. In this case it will be vital that professional regulators such as the NMC are able to provide data to those responsible for the direct regulation of the technology as quickly and comprehensively as possible so that either changes can be made or the particular AI withdrawn from use.

Clear principles around accountability and a clear process to follow when raising concerns about AI will be essential to allowing mistakes or problems to be identified and corrected as quickly as possible. A central function acting a single contact point for all concerns would make this clear and simple for all involved.

### **Legal responsibility for AI**

As AI is used more and as a new regulatory framework is implemented, more thought will need to be given to the interaction between professional regulation and technology regulation, as AI has the potential to blur the boundary between these in a way that previous technological developments have not. This may especially be the case where AI plays a part in diagnosing, triaging or providing advice to patients who have previously been or are later cared for by a regulated professional and where mistakes are made or conflicting advice is provided.

There will also need to be more clarity on how legal controls will prevent AI from acting outside established principles, what the consequences would be if this were to happen and how these will be enforced. For instance, how will relatively autonomous AI

systems know what the law says and how will they be programmed to prevent them from acting outside the law, especially where they are tasked with exploring innovative solutions.

Thank you once again for the opportunity for contribute to this important area and we look forward to continuing to engage with the Government and other regulators as further work is done on the regulation of AI.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'SKC', enclosed within a circular scribble.

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