

## Allied Health Professions Federation (AHPF) Principles for AI and education

The use of Artificial intelligence (AI) holds potential benefits to assist with the education of pre-registration allied health professionals (AHPs) in the UK. Throughout this set of principles, the abbreviation 'AI' will refer to a spectrum of AI technologies and uses including generative AI and other subsets such as machine learning and computer vision. AI should be used to enhance teaching and learning and be flexible to evolving healthcare demands. By integrating AI into pre-registration programmes, educators can potentially support skill development with personalised learning pathways and prepare learners for AI assisted healthcare environments.

The [Russell group principles on the use of generative AI in education](#) provide a broad and robust overview and framework with five principles for generative AI use in UK higher education institutes. Higher education institutions in the UK have institute specific AI guidance with respect to education. This statement of principles is intended to provide nuanced guidance for education providers on the use of AI within AHP pre-registration education - both in the design and delivery of programmes, and in terms of programme content - to develop skills, knowledge and competencies with the assistance of AI across the following areas:

### 1. Clinical reasoning and decision-making

AHPs require specialised training in complex clinical reasoning. AI driven adaptive learning platforms, for example, AI enhanced clinical encounters and simulation-based education, should be used to develop and enhance decision-making skills for AHPs. AHPs should be equipped to use their critical decision-making skills and evidence-based approach when using AI as accountability rests with them.

### 2. Lifelong Learning

AHPs must undertake continuing professional development (CPD) and lifelong learning appropriate to their role. AHP learners should be enabled to use AI as an assistive technology which supports and enables their onward learning post-registration. For example, developing their understanding on how to effectively prompt generative AI / large language models for reliable results.

### 3. Multiprofessional and Profession-specific simulation-based education (SBE)

AHPs require specialised skills training that may incorporate simulation of patient and service user scenarios or clinical skills. SBE may be augmented using AI technologies to complement effective SBE pedagogical techniques. For example, with the use of generative virtual reality such as digital twins, virtual clinical cockpit, or profession specific technologies. Professional bodies may advise on programme requirements and the use of SBE.

### 4. Profession-specific AI applications

Education should include an overview of the type and functions of AI tools being used, the potential benefits, opportunities and challenges, relevant to the profession/field in which the learner is studying and developing competencies across the four pillars of practice (clinical practice, research, education and leadership).

## **5. Integration with practice-based learning**

AI education should be integrated with or transferable to practice based learning experiences. The aim of this principle is to highlight how AI technologies can support learning while on placement in practice-based settings.

## **6. Ethical and legal considerations**

AHP education should equip pre-registration learners to understand the specific ethical and legal challenges related to their use of AI in practice. Typically, this might include consideration of:

- Transparency, confidentiality, informed or implied consent, responsibilities for error for example, algorithmic error/hallucinations.
- Evidence of quality and trustworthiness.
- AHP oversight and responsibilities for AI supported decision making and assistive technologies for profession specific use. Including assessment and recording of risks and safeguards.

UK government collate and maintain the various existing ethical principles for data and AI developed by government and public sector bodies. It is intended to provide clarity and guidance for all public servants working with data and/or AI, including Department of Health and Social Care publications: [Data ethics and AI guidance landscape - GOV.UK](#)

## **7. Data privacy and intellectual property rights**

Institute specific AI guidance will refer to the higher education institution's expectations related to the use of AI for learning and assessment, student accountability, and academic integrity. AHPs have responsibilities to maintain the privacy of patient and service user data in healthcare AI applications. This will apply to their involvement in the development, training, validation, implementation, and ongoing surveillance of AI tools. Learners should be aware of intellectual property and rights of ownership in healthcare organisations.

## **8. Cybersecurity**

The whole healthcare workforce has a critical role to play in the cybersecurity of healthcare organisations. AHP learners should understand their roles and responsibilities with respect to AI and cybersecurity of the organisations that they work and learn in. AHP learners should be able to identify basic digital risks, follow institutional protocols, and adopt safe digital behaviours in both educational and clinical settings.

## **9. Regulatory compliance**

AHP education must align with standards set by the Health and Care Professions Council (HCPC) or General Osteopathic Council (GOsC) and must include knowledge of the UK AI and Data Regulations applicable to health and care.

## **10. Interprofessional collaboration**

AHPs work in multidisciplinary teams within and across a range of organisations. The use of AI will impact on future professional identity, functions, and roles. AHP learners should be prepared to transfer skills, adapt, and innovate in an evolving healthcare AI ecosystem: with education that outlines the current and potential uses of AI and how this might potentially transform their professions. Interprofessional collaboration should include patients and public stakeholders when developing AI applications in practice, education, and research.

## **11. Innovation and entrepreneurship**

In addition to the literacy required to use AI, AHP learners require the skills to become active innovators and leaders in the responsible development and application of AI. AHP learners should be prepared to proactively lead advancements in the evolving landscape of health and care technology, enabled, and empowered to innovate, develop and apply AI within their practice environments.

Education providers should foster an entrepreneurial mindset, equipping learners with the skills, confidence, and capability to identify challenges in their practice environments, generate creative solutions, and lead positive change using AI technologies. This includes:

- Foster creative problem solving and entrepreneurial skills including ethical leadership
- Encourage learners to identify real-world service challenges and design innovative AI solutions
- Promote collaboration and real-world impact by providing opportunities for interdisciplinary collaboration, mentorship, engagement with industry colleagues, and develop knowledge to navigate the pathways from AI concept to practice in a safe and ethical manner.
- Integrate regulatory, ethical, and commercial considerations-to ensure AI innovations are inclusive, equitable, and person-centred.

## **12. Implementation of AI**

There are a range of factors that may influence the implementation of AI. Learners should be aware of potential influences that may affect or effect the implementation of technology in their professional domains and care pathways.

Examples include:

- Organisational technical readiness, integration with existing systems, connectivity & interoperability of systems.
- Clinician / patient preferences and trust including stakeholder buy-in and media influences, perceived usefulness and ease of use.
- Data quality and management, mitigation of negative biases.
- Workforce skills, user confidence and acceptance.
- Ethical and regulatory concerns, trust and transparency.
- Sustainable or green AI encompassing environmental concerns and impact.

### **13. Inclusion Health**

There is an overarching principle of inclusion health across this set of statements. Inclusion health refers to the importance of diversity, equity, and inclusion in healthcare especially for people who are socially excluded. That position is intentionally made overt in this final statement of principle.

Bias, health inequalities, digital inclusion and associated issues which may adversely affect patient and service user groups and populations have the potential to intensify with the use of AI in both education and professional practice-based settings. AHP learners must be aware of these issues and be empowered to act upon them with their education and practice teams.