Matrix I: Recommendations for Integrating AI - Educator Focus

Domains & Vision Statements	INTRA-PERSONAL *Recommendations for an Educator on the personal, preparatory or conceptual level*	MICRO *Recommendations for a Medical Educator in practice*	MESO *Recommendations for an individual Medical School*	MACRO *Recommendations for individual Medical Education Organizations (AMEE, IAMSE, AAMC, NBME)*	MEGA *Recommendations for an International Med Ed AI Consortium (IACAI and similar)*
I. AI Values, Culture & Integration Plan *Through intentional planning, AI is thoughtfully integrated into the curriculum, aligning with the institution's mission, while considering the diverse perspectives and needs of faculty. Medical schools stay current with AI applications to healthcare.*	1. Explore one's own values & perceptions regarding AI in medical education. 2. Develop self-awareness about one's own knowledge, skills & attitudes towards AI 3. Compare & contrast these thoughts and feelings with others. 4. Explore the evolving role of AI in UME & healthcare. 5. Explore future potential developments in AI such as AGI & superintelligence. 6. Explain AI as a foundational technology with transformative potential for society.	1. Identify or co-develop the medical school's values & mission regarding AI adaptation or integration. 2. Convene as an educator community of practice, share experiences of using digital or AI technologies in UME contexts. 3. Offer training resources for educators teaching a given course, such as a course-specific set of principles for using AI. 4. Share experience, lessons learnt, good practice and a case study with other educators on other courses within the institution.	1. Establish an institutional-level working group or equivalent, that ensures alignment of the organizational values around education & digital technology with the use of AI across all educational courses & programs. 2. Ensure institutional policies, procedures, & processes are regularly updated to support the adoption of AI & seamlessly integrate the technology into routine operations. 3. Organize cross-institutional activities and sharing of practice that brings together stakeholders such as AI & technology experts. 4. Foster a culture of continual learning around latest AI developments.	1. Facilitate the creation of shared AI vision based on common values across various communities, cultures & countries. 2. Bring together people across borders to participate in cross-institutional forums for sharing ideas around strategic planning for AI integration into healthcare & UME. 3. Engage in future-casting to anticipate & shape the long-term impact of AI in healthcare & UME. 4. Create & openly share resources across organisations.	1. Set the direction & spark the conversation on the important, essential, & relevant AI values while articulating a clear vision for AI within the contexts of healthcare & UME. 2. Organize a formal consortium to identify key priorities and common goals with respect to the use and integration of AI in healthcare and UME. 3. Embed principles of equity, diversity & inclusion into all policy, procedure & practice when bringing together stakeholders.
II. AI Foundation Skills *Medical educators are literate in AI technologies, developing their AI skills to enhance teaching, research, and clinical decision-making.*	1. Identify personal training needs in the context of one's own role & responsibilities. 2. Engage in conversations with others in a similar role about their experience using AI, & connect with other colleagues, teams or communities to increase one's AI literacy. 3. Gather evidence of one's own increasing knowledge, skills & competence with AI as part of a portfolio demonstrating engagement & commitment towards lifelong learning as part of one's professional role.	1. Explain the meaning of specific AI terms such as prompts & context window, as applicable to education or healthcare contexts. 2. Describe some of the similarities & differences across the spectrum of technologies that come under the AI umbrella such as generative AI, machine learning or deep learning. 3. Discuss the opportunities & challenges related to the training of AI algorithms as applied to healthcare or UME contexts, from various perspectives such as ethical, moral, equity, diversity or inclusion.	1. Identify opportunities for supporting faculty development around AI within the institution as well as external to the institution. 2. Identify and curate case studies, best practice examples, and key reading around AI in healthcare or UME contexts. 3. Promote the inclusion of AI training as a standard component for all educators, staff and students.	1. Leverage the experience and expertise across the membership to identify criteria for benchmarking AI readiness at individual or institutional levels. 2. Signpost relevant and important advice, guidance, opinion, commentaries, research and scholarship relevant to AI in healthcare or healthcare professions education contexts 3. Create community spaces for individuals to develop a sense of belonging, and share AI experiences in healthcare or UME contexts.	1. Lead the conversation around developing AI literacy across healthcare and UME contexts. 2. Lead on the development of positive actions, advice and guidance for designing competency frameworks at the institutional level. 3. Engage in priority setting for research and scholarship in healthcare or UMEl contexts.
III. AI Ethical & Responsible Use *Strong ethical frameworks guide responsible AI use in medical education, focusing on academic integrity, transparency, and privacy.*	1. Critically reflect & discuss the ethical, moral, legal, educational & social issues & impact of AI in healthcare & UME. 2. Recognize and uphold key principles of academic integrity, data stewardship, authorized use, & intellectual property.	1. Signpost learners & faculty to institutional policies regarding responsible AI use. 2. Apply principles of AI responsible use in healthcare & UME contexts.	1. Establish institutional-level policies for ethical & responsible AI use. 2. Ensure compliance with legal, cybersecurity & ethical standards in AI policy development. 3. Establish a data governance policy & data classification matrix.	1. Disseminate best practice, advice & guidance around guideline development for ethical & responsible AI use. 2. Promote discussions around openness & transparency in relation to AI use in healthcare & education contexts. 3. Develop toolkits for ensuring safety & governance where roles & responsibilities, ownership & accountability for AI use are clear, & specific to different countries and jurisdictions.	1.Publish advice, guidance, best practice examples, case studies and reports & guidance around AI-related issues such as cybersecurity, misinformation, deep fakes which are relevant to healthcare or UME contexts. 2. Publish consensus statements around AI-related issues such as data governance.

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IV. AI Tools & Resources *Institutions adapt to new AI tools and processes, evaluating their strengths, biases and limitations, while promoting equitable access to credible and reliable AI resources.*	1. Select & implement AI tools through informed evaluation, emphasizing human-AI collaboration rather than replacement. 2 Maintain critical awareness of AI limitations, including data quality & algorithmic bias, to ensure fair & effective educational use.	1. Explore & evaluate available AI training resources & tools within the academic environment, comparing features & costs. 2. Critically assess each tool's effectiveness, accessibility, & potential biases while ensuring selection of reliable, evidence-based AI solutions that support diverse users' needs.	1. Establish & maintain a core set of AI tools that meet educational standards & institutional policies, ensuring accessibility & functional effectiveness through ongoing assessment & iteration. 2. Implement systematic protocols for identifying & mitigating biases, while coordinating necessary human, technical, & procedural resources. 3. Partner with medical librarians to review & validate evidence-based AI tools & practices.	1. Curate & disseminate best practices for AI data security & governance while crowdsourcing information about effective tools. 2. Foster partnerships with AI developers to create specialized medical education tools, informed by educational theories of technology adoption. 3. Provide guiding principles for equitable access & responsible use of AI resources aligned with educational standards.	1. Develop global policies that promote culturally-relevant AI tools while establishing standardized evaluation frameworks for bias, reliability, & accessibility in diverse educational contexts. 2. Foster international collaboration to address resource inequities & ensure equitable access to AI resources across all medical education settings.
V. AI for Instruction & Academic Tasks *AI improves teaching methods, supporting critical thinking and medical decision-making.*	1. Strategically identify areas within medical curricula where AI-augmented instruction can enhance teaching methods & support development of critical thinking. 2. Implement AI tools as co-learning partners to augment instructional tasks, emphasizing the collaborative potential of human-AI integration in education.	1. Align AI integration with institutional guidelines while developing effective workflows for AI-augmented teaching & learning experiences. 2. Systematically experiment with AI tools to optimize instructional strategies, focusing on creating learning experiences that strengthen critical thinking.	1. Establish dedicated AI integration committees that foster collaboration between technology-focused faculty & staff, while providing structured guidance for curricular AI implementation. 2. Develop strategic frameworks & resources that help faculty identify high-impact opportunities for AI augmentation, particularly in areas that enhance critical thinking, problem-solving, & clinical reasoning skills.	1. Establish AI-focused faculty development programs & continued learning opportunities. 2. Create structured frameworks for implementing AI across the medical education continuum (UME-GME-CME), emphasizing critical thinking & clinical decision-making skills at each training level.	1. Guide the strategic adoption & integration of AI across medical education organizations according to shared values & educational vision. 2.Implement AI solutions to enhance organizational efficiency while promoting effective teaching & learning approaches at the global level.
VI. AI to Enhance Clinical Skills & Clinical Training *AI improves teaching methods, supporting critical thinking and medical decision-making.*	1. Identify various AI use cases for clinical settings. 2. Investigate AI-augmented skills needed for one's effective & ethical clinical practice. 3.Engage in AI training courses with a clinical focus.	1. Enhance clinical decision-making accuracy using AI assistance while maintaining clinical judgment & patient-centered care. 2. Develop fluency with clinic-sponsored AI-augmented EHR tools for clinical documentation. 3. Critically assess AI-generated care recommendations to ensure accuracy & alignment with clinical judgment. 4. Ensure patients are informed about AI's role in their care by clearly explaining its use. 5. Leverage AI to enhance patient education. 6. Leverage AI for improving clinical training skills & activities.	1. Provide educators with an orientation to AI for healthcare settings. 2. Provide educators with AI training for clinical settings. 3. Leverage AI to improve clinical simulations. 4. Train faculty to effectively leverage AI in evidence-based practice, including its application, evaluation, & integration into clinical decision-making.er with medical librarians to review & validate evidence-based AI tools & practices.	1. Support initiatives to align AI skill development with existing competency frameworks, such as Entrustable Professional Activities (EPAs). 2. Support development of nationally recognized AI certifications & courses. 3. Support discussions regarding AI skill development programs.	1. Foster collaboration among organizations to resolve international AI challenges.
VII. AI for Assessment *AI-powered systems improve assessment systems with protocols in place for human involvement and bias mitigation. AI supports feedback and improvement cycles*	1. Critically examine personal values & potential biases regarding AI-scored assessments while developing awareness of how these tools may impact fairness & transparency. 2. Engage with institutional policies & contribute to ongoing discussions about academic integrity in the context of AI use.	1. Develop expertise in AI-powered assessment tools through bias detection training & institutional guideline review, ensuring fairness, transparency, & clinical authenticity in evaluation methods. 2. Utilize validated AI systems to develop comprehensive assessment methods that provide personalized, actionable feedback supporting continuous student improvement.	1. Establish comprehensive AI assessment policies that ensure fairness, transparency, & ethical standards while defining clear protocols for AI integration in learning and practice contexts. 2. Implement validated AI and machine learning solutions that enhance assessment processes through actionable feedback & predictive analytics, supporting continuous quality improvement.	1. Establish evidence-based guidelines that define human oversight and accountability standards for AI assessment systems in medical education. 2. Create collaborative networks with licensing board exam developers to advance the field of AI-enhanced assessment & best practices across the medical education community.	1. Develop international standards for AI-enhanced assessments that emphasize human oversight, bias mitigation, & evolving competency requirements in medical education. 2. Foster interdisciplinary collaborations to advance ethical AI-enhanced assessment practices & address emerging challenges in global medical education.

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IX. **AI for Curriculum Optimization & Program Evaluation** *AI assists with streamlining the curriculum, learning analytics, & educational content, ensuring a more stimulating, effective & tailored learning experience*	1. Stay current with advancements in AI that impact curriculum development.	1. Map and tag one's own lectures, labs, & curricula so that AI can assist with developing & aligning objectives to curricular content. 2. Use AI to assist with aligning lectures, labs, & curricula with medical education core competencies & accreditation requirements.	1. Consider AI platforms and methods for optimizing & streamlining the medical school's curriculum. 2. Use AI to improve the curriculum at various levels: program, course, & lesson. 3. Integrate AI training into the existing medical curricula. 4. Leverage AI for learning analytics, & accreditation documentation. 5. Develop AI-enhanced data dashboards that provide faculty with insights into student performance & curriculum alignment with learning outcomes.	1. Develop standards & guidelines for the use of AI in curriculum optimization, ensuring alignment with accreditation requirements. 2. Streamline the medical education curriculum through revision of key standards.	1. Convene committees & workgroups to envision new methods for planning, delivering and evaluating curriculum, supported by AI.
X. **AI for Research & Research Mentoring Skills** *AI provides support for mentorship, career planning and exploration.*	1.Identify appropriate stages of one's own research process where AI can be effectively integrated.	1. Engage with relevant resources & AI courses to build proficiency in AI applications for research. 2. Use AI to optimize one's own research. 3. Build skills to mentor students using AI for research.	1. Support the needs of researchers using AI applications for healthcare & medical education. 2. Encourage interdisciplinary collaboration. 3. Share best practices & guidelines for AI use in research.	1. Support discussions & conferences regarding the ethical use & reporting of AI research. 2. Revise publishing cycles to reflect the rapid pace for AI-related research.	1. Develop or disseminate standardized AI-augmented research best practices. 2. Promote interdisciplinary research consortia.
XI. **AI-Ready Workforce** *AI promotes collaboration between educators, learners, and other disciplines to incubate and accelerate discovery.*	1. Identify ways AI may impact one's role or career.	1.Collaborate with peers & experts to enhance AI literacy & share best practices.	1. Analyze UME workforce data in relation to AI to adjust curricula. 2. Collaborate with affiliated hospitals and clinics to understand AI skills required. 3. Develop or recruit employees with AI skills.	1. Collect & disseminate data about the way AI is impacting the health professions workforce. 2. Alleviate concerns about job obsolescence.	1. Analyze the impact of AI on UME. 2. Consider its impact on institutions, faculty, learners & societies.
XII. **AI for Health and Wellbeing** *AI enhances self-actualization, selfcare, offers tools for health monitoring, and promotes a humanistic, collaborative environment.*	1. Explore ways AI can support efficiency & work-life balance. 2. Consider AI applications & wearable technologyfor health & well being, such as nutrition & vital signs monitoring, fitness & physical activity, stress management, preventative healthcare, sleep health, chronic disease management, rehabilitation, healthy aging, community & social well-being.	1. Use AI to optimize personal & student schedules. 2. Integrate AI applications or technology into courses where applicable.	1. Support AI wellbeing technologies, where useful in the curriculum. 2. Use AI to monitor & improve institutional wellbeing metrics.	1. Foster the development of national discussions, faculty development & continued education about AI applications for promoting health & wellbeing.	1. Address global healthcare worker burnout through AI solutions. 2. Support the development of guidelines & frameworks about AI for wellbeing.