

Meeting the Moment: AI Policy and Recommendations for Advancing AI in Academia and Medical Education

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Association of American Medical Colleges

AAMC Members

Member institutions represent the full spectrum of medical education in the United States and Canada:



173

accredited U.S. & Canadian medical schools



Nearly 500

academic health systems and major teaching hospitals, including Veterans Affairs medical centers



70

faculty & academic societies

AAMC serves the leaders of its member institutions, as well as the following communities:



201,000+

full-time faculty members



158,000

resident physicians



97,000

medical students



60,000+

graduate students

Supporting, Collaborating, and Leading in Medical Education



Developing & Supporting Educators

Supporting the community in its response to emerging and critical issues.



Developing Scholars & Advancing Scholarship

Greater support of and access to evidence & resources



Advancing CBME

Competency based medical education



Strategic Partnerships & Collaborations

Inter-organization, Interprofessional, interdisciplinary, and international collaborations

ACROSS THE CONTINUUM & ACROSS SPECIALTIES



**How can we use AI to improve
how we teach,
and how students learn?**

**Where to start?
What to worry about?**

Opportunities Identified



- Faculty and staff training and development (including change management support)
- AI expertise
- Infrastructure
- Equal access, safety, and security
- Exemplars and best practices

AI for and in Medical Education

AAMC's Strategic Framing and Priority Areas

1. AI for Medical Education: Building and incorporating AI into tasks, processes, and systems.

- a. Advancing admissions and selection
- b. Using AI to streamline operations
- c. Refining teaching and learning (including assessment and feedback) across the continuum

2. AI in Medical Education: Supporting learners along the continuum; integrating and using AI in practice.

- a. Tracking innovations and trends in the curriculum
- b. Developing AI competencies and principles (standalone and across existing sets)
- c. Providing openly available resources, tools, and scholarship

AI FOR MEDICAL EDUCATION

Incorporating AI into the work you do

LEARNING & NETWORKING

Learn from experts, share your experiences, and connect with peers. Come together with the academic medicine community to innovate and advance thinking and practice.

CRITICAL RESOURCES

Explore timely, high-quality resources to guide your thinking and practice around integrating AI across medical education.

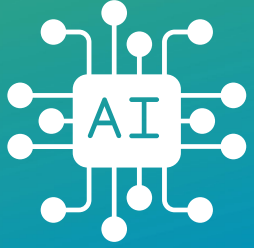
COMMUNITY COLLABORATIONS

Learn more about how the academic medicine community is working together around the globe to support each other and develop best practices.

Teaching AI best practices to learners, faculty, and staff

AI IN MEDICAL EDUCATION

What's Happening at the AAMC



Convening Learning & Networking

- Webinar series and community conversations calls
- Virtual community
- Presentations, conversations with affinity groups and at conferences

Collaborating with the Community

- Surveying the community on AI
- International Advisory Committee for Artificial Intelligence in partnership with AMEE, IAMSE, APMEN, and AAHCI (**vision & integration frameworks released Jan 2025**)
- AMA, NAM, and Macy Foundation collaborations

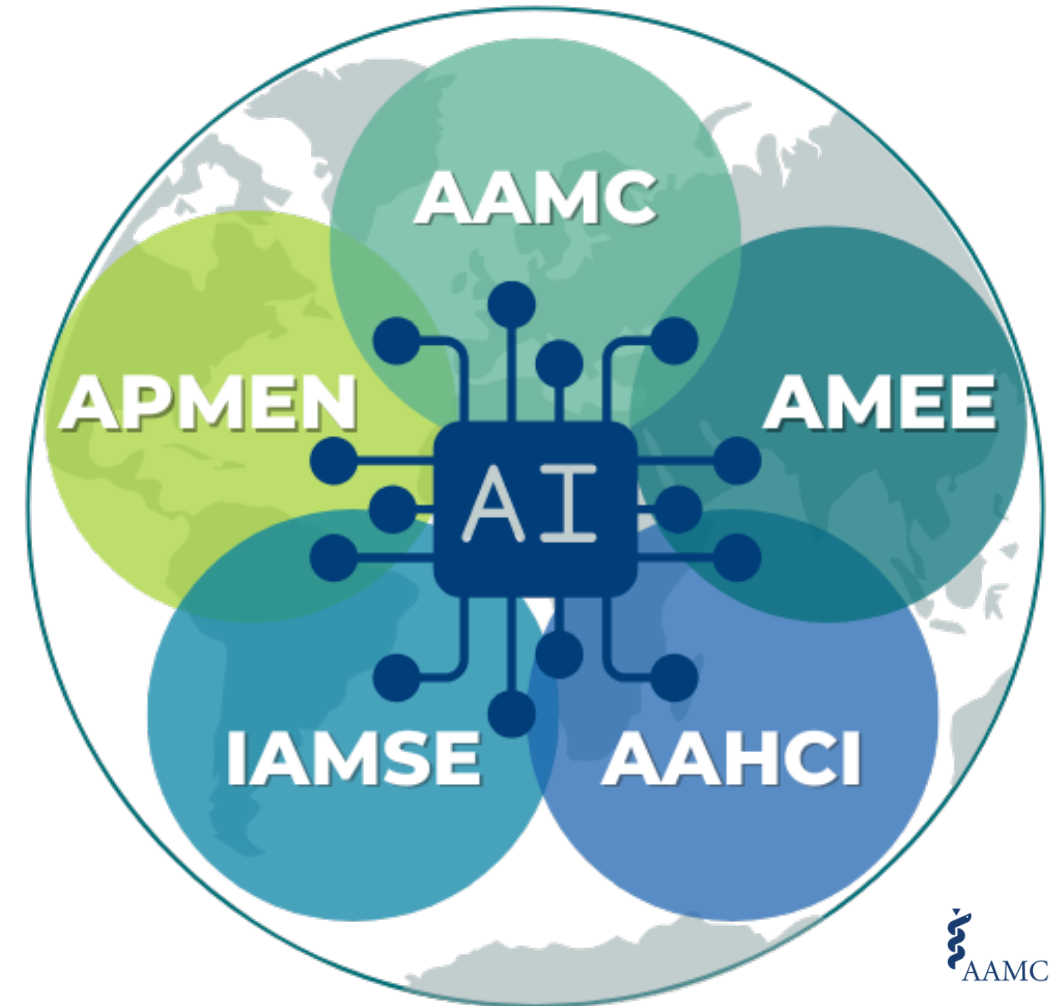
Disseminating Critical Resources

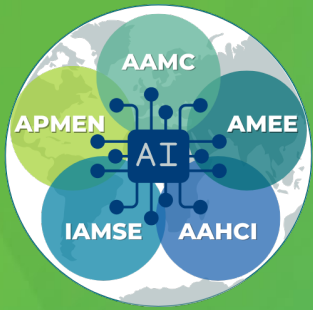
- Principles for the Responsible Use of AI in and for Medical Education (**released Jan 2025**)
- Principles to Guide the Use of AI in Medical School Admissions and Residency Selection (released July 2024)
- Active Calls for Submissions:
 - Advancing AI Across Academic Medicine Resource Collection (**launching April 2025**)
 - *MedEdPORTAL* AI Education Collection



International Advisory Committee for AI (in Medical Education)

- Inaugural 16 members representing over 10 countries with expertise in AI and medical education
- Convened to provide guidance and best practices for the HPE community
 - Survey the dynamic AI landscape
 - Identify opportunities and address concerns for learners, faculty, staff
 - Imagine new realities for medical education in this AI era





International Advisory Committee for Artificial Intelligence



www.medbiq.org



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Lebanon



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Rachel Ellaway, PhD
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Tecnológico de Monterrey, Mexico



Bonnie Miller, MD
Vanderbilt University School of
Medicine, USA



Luxia Zhang, MD, MPH
National Institute of Health Data
Science at Peking University,
China

International Vision & Integration Frameworks

The IACAI created an international future vision of AI in medical education, along with accompanying frameworks, to guide proactive integration.

- Sets forth a proactive vision and call to action for responsible and ethical use of AI in medical education.
- Provides guidance across multiple domains, for various teaching and learning contexts (classroom-based education, clinical training, etc.) and targeting specific audiences (educator, learner, etc.).
- Highlights actions that individuals and institutions can take.



<https://www.medbiq.org/initiatives/international-advisory-committee-artificial-intelligence>

Review the draft frameworks and provide your feedback on the website

Principles for Responsible AI in Medical School Admissions & Residency Selection & Medical Education

Admissions & Residency

1. Balance Prediction and Understanding
2. Protect Against Algorithmic Bias
3. Provide Notice and Explanation
4. Protect Data Privacy
5. Incorporate Human Judgment
6. Monitor and Evaluate



Available at aamc.org/AI

Medical Education

1. Maintain Human-Centered Focus
2. Ensure Ethical and Transparent Use
3. Provide Equal Access to AI
4. Foster Education, Training, And Continuing Professional Development
5. Develop Curricula through Interdisciplinary Collaboration
6. Monitor and Evaluate



What AI competencies are needed of current and future physicians?

How will other competency domains be impacted by AI?



Sample Use Cases Across the Continuum



Sentiment Analysis & Bias Evaluation (n=7)
(e.g., determining emotional tone from text)



Personalized Learning
Platforms (n=6)
(e.g., Intelligent tutoring
systems)



ChatBots (n=2)
(e.g., Q&A)



Pre-Clerkship



Clerkship & Electives



GME



Pre-Med & Admissions



Clinical Guidance for Trainees (n=11) (e.g.,
decision support tools)



Clinical Skills (n=10) Surgical/Procedural
Skills, Narrative Test Analysis (n=15)



Virtual Patient Simulators
(n=11) (e.g., clinical reasoning
practice)

New Competencies in AI

- McCoy, L.G., Nagaraj, S., Morgado, F. et al. What do medical students actually need to know about artificial intelligence?. npj Digit. Med. 2020 86(3).
- Liaw W, Kueper JK, Lin S, Bazemore A, Kakadiaris I. Competencies for the Use of Artificial Intelligence in Primary Care. Ann Fam Med. 2022 Nov-Dec;20(6).
- Russell RG, Lovett Novak L, Patel M, Garvey KV, Craig KJT, Jackson GP, Moore D, Miller BM. Competencies for the Use of Artificial Intelligence-Based Tools by Health Care Professionals. Acad Med. 2023 Mar 1;98(3):348-356.
- Jacobs SM, Lundy NN, Issenberg SB, Chandran L. Reimagining Core Entrustable Professional Activities for Undergraduate Medical Education in the Era of Artificial Intelligence. JMIR Med Educ. 2023 Dec 19;9



New Competencies in AI

I. Foundational Knowledge

II. Clinical Applications of AI

III. Collaborative AI-based Care

IV. Critical Appraisal of AI

V. Continuous Improvement

VI. Ethical Implications of AI



I. Foundational Knowledge

Knowledge of AI: Explain what artificial intelligence is and describe its health care applications.

II. Clinical Applications of AI

AI-Enhanced Clinical Encounters: Carry out AI-enhanced clinical encounters that integrate diverse sources of information in creating patient-centered care plans.

III. Collaborative AI-based Care

Workflow Analysis for AI-Based Tools: Analyze and adapt to changes in teams, roles, responsibilities, and workflows resulting from implementation of AI-based tools.



IV. Critical Appraisal of AI

Evaluation of AI-Based Tools: Evaluate the quality, accuracy, safety, contextual appropriateness, and biases of AI-based tools and their underlying datasets in providing care to patients and populations.

V. Continuous Improvement

Knowledge of AI: Explain what artificial intelligence is and describe its health care applications.

VI. Ethical Implications of AI

AI-Enhanced Clinical Encounters: Carry out AI-enhanced clinical encounters that integrate diverse sources of information in creating patient-centered care plans.



Call for Submissions: Artificial Intelligence Education

MedEdPORTAL invites submissions
of responsible and ethical
implementation of AI tools in
teaching, learning, and assessment
towards the aim of improved
patient care



Collection Editors



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University of Michigan
Medical School

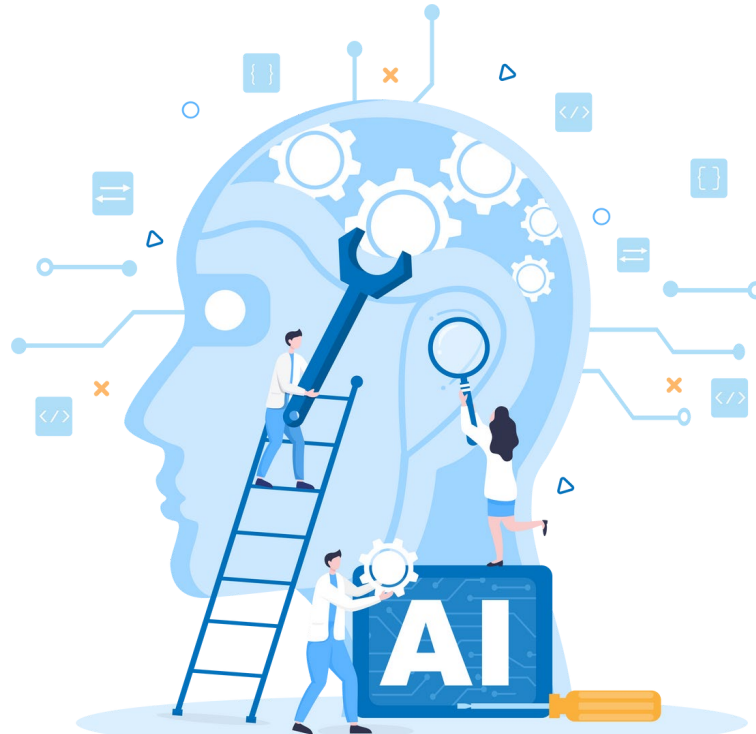


Elissa Hall, EdD
Mayo Clinic College of
Medicine and Science

Advancing AI Across Academic Medicine Resource Collection

These selected submissions are of early educational materials, promising practices, policies, and pilot projects.

The goal is to advance collaboration and knowledge sharing and spark innovative thinking.

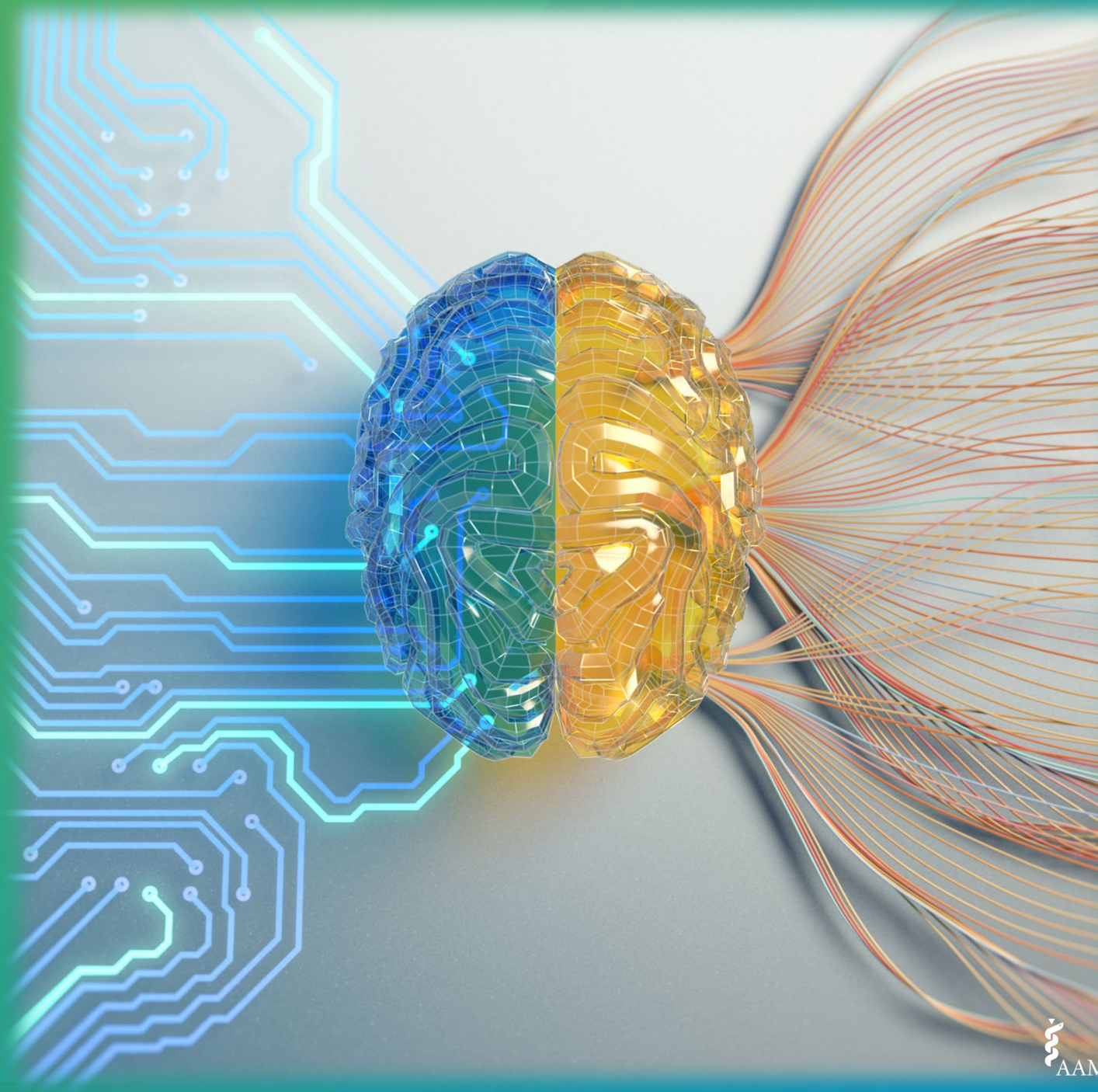


Selected submissions will be included in a collection launching April 2025.

Next opportunity to submit coming late spring 2025!

AI in HPE Virtual Community

Join this virtual forum to share ideas, ask questions, learn from experts, connect with peers, and grow professionally.





Artificial Intelligence

Learn from experts, share your innovations, engage with colleagues

- Webinar series
 - Key resources collection
 - Discussion threads
 - Virtual community
- And More!**

Stay in touch:
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The screenshot shows the AAMC Communities website. The header includes the AAMC logo, the word "Communities", and navigation links: Home, Member Spotlight, Resource Bundles, Communities, Help, Directory, and Participate. There is a search icon, a user profile icon, and a "Create" button. The main heading is "Artificial Intelligence and Medical Education". Below this is a featured article with a large image of a brain made of circuitry. The article title is "The landscape of artificial intelligence (AI) is quickly evolving." The text describes the rapid advancement of AI in medical education and offers resources, events, and opportunities for engagement. It encourages non-members to register. A "Register Today" button with a right arrow is at the bottom of the article.

Artificial Intelligence and Medical Education

The landscape of artificial intelligence (AI) is quickly evolving.

In medical education, advances in this technology have led to new opportunities for educators, learners, and staff as well as questions and challenges around best practices and ethical use. This collection includes scholarly resources, in-person and virtual events, and other information to help you stay up to date on the latest work happening across medical education. Also included are opportunities for you to engage with colleagues and experts in AI, large language models, machine learning, and more.

If you're viewing this page as a non-member of the AAMC Communities, consider registering and joining the conversation!

[Register Today →](#)