VIRTUAL TALKING CIRCLES

A space for community dialogue on creative ideas, novel experiments and best practices in health sciences education

Innovations in Machine Learning and Artificial Intelligence for Application in Education

February 22 | 12-1 p.m.

Welcome

Talking Circles

Talking Circles or Circle Talks are a foundational approach to First Nations pedagogy-in-action since they provide a model for an educational activity that encourages dialogue, respect, the co-creation of learning content, and social discourse. The nuance of subtle energy created from using this respectful approach to talking with others provides a sense of communion and interconnectedness that is not often present in the common methods of communicating in the classroom. When everyone has their turn to speak, when all voices are heard in a respectful and attentive way, the learning atmosphere becomes a rich source of information, identity, and interaction.

http://firstnationspedagogy.ca/circletalks.html

The “Domains of Focus” Series

Domains of Focus Series

1. High-Quality Feedback and Assessment
2. “Big Data” and its Applications
3. Digital and Information Tools and Education Platforms
   - Learning Analytics, Educational Platforms, and the Advancement of Personalized Education
   - *Machine Learning and Artificial Intelligence for Application in Education*
4. Diversity, Equity, and Inclusion (DEI)
5. Organizational Change and Quality Improvement
6. Relevant and Adaptable Educator Training
7. Teamwork and Collaboration, including Community Partnerships

Digital and Information Tools and Education Platforms*

*HSEI Task Force Definition

Education innovations in this area use technology and simulation to enhance all HSE domains. Specific examples include optimizing and investing in technology that incorporates **(1) Artificial Intelligence (AI), Machine Learning (ML),** and Virtual Reality (VR) in education; (2) social media platforms for teaching and learning; (3) digital tools that promote self-directed and master adaptive learner development (e.g., e-Coach); and (4) platforms that lay the infrastructure for data and learner analytics to improve performance.

Poll - Question 1

How important is it that Michigan Medicine develops new ideas for “Machine Learning and Artificial Intelligence for application in education”?

- ❑ Not important
- ❑ Important
- ❑ Extremely Important
- ❑ Unsure/Unable to Assess

Poll - Question 2

Which of the following is the **MOST** significant barrier to developing new ideas in “Machine Learning and Artificial Intelligence for application in education” here at Michigan Medicine? (Select one)

- ❑ Experimentation is not incentivized
- ❑ Not enough expertise in this area
- ❑ Insufficient resources (e.g., funding, technology, personnel)
- ❑ Lack of time, competing priorities
- ❑ Lack of awareness of opportunities to work in this area

Poll - Question 3

Which statement best describes your feelings about the use of AI in healthcare?

- ❑ I am excited about the positive impact that AI will have on patient outcomes
- ❑ I am skeptical that AI will achieve its suggested potential to improve clinical workflow
- ❑ I am concerned that AI will negatively impact the patient-clinician relationship
- ❑ I have not given the use of AI in healthcare much thought

Framing the Discussion

Questions to Help Us Dream and Think Big About "Machine Learning and Artificial Intelligence for Application in Education"

Why does this innovation matter?

What should we start doing to prepare learners to effectively engage with AI?

What resources are necessary to teach learners to effectively use AI in practice?

Today's Thought Leaders and Innovators

Cornelius James, M.D.

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DREAM
THINK BIG

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Link: https://umich.qualtrics.com/jfe/form/SV_6gUqE4y99ecIuyy

Maximizing the Promise and Mitigating the Peril of Artificial Intelligence in Health Professions Education: A Workshop

- Applying AI for accelerating effective interprofessional education and collaborative practice;
- Exploring challenges and opportunities in developing, validating, implementing, and monitoring the use of AI and machine learning algorithms in health professions education;
- Understanding potential risks and benefits of AI for improving the educational process (e.g., bias, equity, and burden);
- Investigating the barriers and facilitators to integrating AI into clinical education; and
- Engaging relevant stakeholders for responsible AI implementation from foundational health professional education to continuing education development.

March 3, 15-16; Virtual and In-Person

Cell Reports Medicine

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Commentary

Teaching artificial intelligence as a fundamental toolset of medicine

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Artificial intelligence (AI) is transforming the practice of medicine. Systems assessing chest radiographs, pathology slides, and early warning systems embedded in electronic health records (EHRs) are becoming ubiquitous in medical practice. Despite this, medical students have minimal exposure to the concepts necessary to utilize and evaluate AI systems, leaving them under prepared for future clinical practice. We must work quickly to bolster undergraduate medical education around AI to remedy this. In this commentary, we propose that medical educators treat AI as a critical component of medical practice that is introduced early and integrated with the other core components of medical school curricula. Equipping graduating medical students with this knowledge will ensure they have the skills to solve challenges arising at the confluence of AI and medicine.

Upcoming Virtual Talking Circle

MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

RISE will work with the community to construct a cohesive direction for education innovation at our institution

Graduate Education Biomedical Sciences

Undergraduate Medical Education

Graduate Medical Education

Continuing Medical Education