NYSIM

THE CITY UNIVERSITY OF NEW YORK | NYU GROSSMAN SCHOOL OF MEDICINE

Leveraging Artificial Intelligence to Advance Simulation-Based Health Professions Education

Virtual Hot Topics in Simulation Education Symposium

Sponsored by the New York Simulation Center for the Health Sciences (NYSIM)

Date:
Friday, October 18, 2024

Virtual Symposium:
9:00am - 1:00pm EST

Vendor Demonstrations:
1:00pm - 2:00pm EST

Location:
Via Zoom

Who should attend?
This symposium is ideal for healthcare professionals and educators looking to stay at the forefront of simulation innovations. It will offer valuable insights and practical strategies for those interested in integrating artificial intelligence (AI) into their simulation practices.

What does the day include?
Plenary Talk, Interactive Speaker Presentations with Q&A, Panel Discussion and Vendor Demonstrations

Symposium Fee:
NYULH: Free
CUNY: Free with coupon code
External: $50

Register Here

Symposium Objectives

Participants will be able to:

1. Discuss the current state of Artificial Intelligence (AI) in health professions education and collaboratively develop a shared framework and terminology

2. Apply generative AI techniques to develop simulation case scenarios, including the creation of backstories and preparatory materials for simulation-based education

3. Highlight completed projects utilizing AI in simulation-based education and recognize the transformative impact of AI on simulation scholarship

4. Explain the process by which AI grades OSCE learner documentation, including reliability and validity of AI-generated assessments

5. Explore the potential impact of AI on future health professions education, including research priorities, ethical considerations, and health equity

Questions?

Please contact us via email at nysim@nyulangone.org or call us at (646)-501-4000 if you have any questions about the symposium.

Accreditation, Designation & Contact Hours

CME Accreditation Statement
The NYU Grossman School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit Designation Statement
The NYU Grossman School of Medicine designates this live activity for a maximum of 3.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nursing Continuing Professional Development Contact Hours
This program will provide 3.9 continuing nursing professional development contact hours. Participants must complete a course evaluation to claim contact hours for this learning activity. NYU Rory Meyers College of Nursing Center for Nursing Continuing Professional Development (NCPD) is accredited provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation. (Provider #P0367).

Physician Assistant Credit
PAs may claim a maximum of 3.75 Category 1 credits for completing this activity. NCCPA accepts AMA PRA Category 1 Credit™ from organizations accredited by ACCME or a recognized state medical society.

PROVIDED BY
NYU Grossman School of Medicine

Attendance and Cancellation Policies

If you are unable to attend the virtual symposium, please notify nysim@nyulangone.org. Registration fees are non-refundable.
All cancellations must be submitted via email to nysim@nyulangone.org by October 14, 2024. There are no refunds available for this course.

Agenda

Welcome and Introduction of the Plenary Speaker

Deepak Pradhan, MD, MHPE, FCCP, ATSF
Associate Medical Director
New York Simulation Center for the Health Sciences (NYSIM)

From Bytes to Bedside: Exploring the Impact of Artificial Intelligence on Medicine

Marc Triola, MD
Professor of Medicine
Associate Dean for Educational Informatics
Director, Institute for Innovations in Medical Education
NYU Langone Health
NYU Grossman School of Medicine

This lecture on the impact of Artificial Intelligence (AI) on medicine will seek to establish a foundational understanding of AI and its relevance to medicine and health professions education. We will explore AI applications in medicine, emphasizing their potential benefits, and how to integrate AI tools into clinical decision-making processes. Future trends and innovations in AI medicine are discussed, supported by case studies. Ultimately, the lecture aims to empower physicians with the knowledge and skills needed to navigate AI's evolving role in medicine and education effectively.

Objectives:
- Understand AI and its relevance to medicine: Establish a foundational understanding of Artificial Intelligence (AI) and its significance in the medical field.
- Integrate AI into clinical decision-making, documentation, and medical education: Explore AI applications in medicine, emphasize their potential benefits, and demonstrate how to incorporate AI tools into clinical decision-making processes.
- Navigate future AI trends and innovations: Discuss future trends and innovations in AI medicine, supported by case studies, to empower physicians with the knowledge and skills to effectively navigate AI's evolving role in medicine.

Using Generative AI to Create Simulation Cases

David L. Rodgers, EdD, NRP, FAHA, FSSH
Director, Interprofessional Simulation Center, Indiana University, Bloomington, IN
Assistant Professor of Medicine
Indiana University School of Medicine

Generative AI can streamline simulation scenario development; however, as with most new technologies it must be used appropriately. This session will discuss and demonstrate the use of generative AI to produce quality simulation scenarios and reduce the likelihood of errors and other issues from being introduced.

Objectives:
- Describe the process for creating simulation cases using generative AI
- Design prompts for optimal efficiency and quality outputs
- Discuss caveats and considerations with AI-generated simulation cases
- Develop critical action checklists or progression templates using generative AI

11:00am – 11:05am

Break

11:05am – 11:20am

## Harnessing Generative AI for Simulation Preparation

Janet M. Reed, PhD, RN
Assistant Professor of Nursing
Kent State University

We will explore how generative AI can be used for visual imagery and storytelling to engage learners in pre-simulation preparation. We will explore various tools, showcase examples, and discuss research on the positive pedagogical outcomes of using AI image generation as a strategy to prepare for simulation.

Objectives:
- Learners will describe how generative AI can be used to create pre-simulation preparatory materials to engage learners and to prepare for the simulation
- Learners will describe research findings on student benefits to incorporating generative AI visual backstories to prepare for healthcare simulation
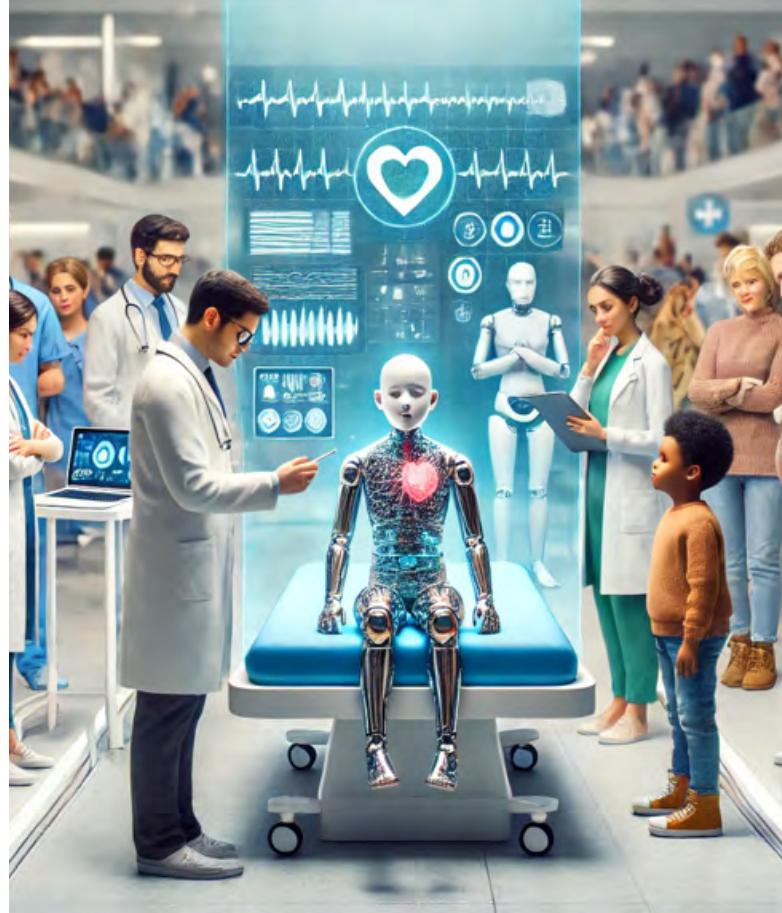
11:20am – 11:35am

Empowering Healthcare Simulation Educators: Integrating AI-Driven Virtual Simulations for Enhanced Learning

Anne White, PhD, RN, CNE
Professor, Coordinator MSN Nursing Education
Wellstar School of Nursing
Kennesaw State University

Mary Beth Maguire, DNS, RN, CNE, CHSE
SimCapture Impact Manager
Laerdal Medical

This session outlines a three-phased approach to integrating AI-driven virtual simulations. The session focuses on enhancing educators' ability to guide students through all phases of simulation.

Objectives:
- Understand the principles and benefits of using AI-driven virtual simulations in healthcare education
- Learn strategies to effectively guide and support students through virtual simulation experiences
- Assess the design and implementation of the presented simulation, identifying strengths and areas for improvement

Demystifying AI: How Artificial Intelligence Grades the OSCE Learner Documentation

Tavinder K. Ark, PhD
Associate Professor, Data Science Institute
Medical College of Wisconsin

- Nuts and Bolts of setting up the process
- How AI grades notes
- Ensuring reliability and validity when using AI for Note Grading
- Audience questions

Objectives:
Understanding how to validate AI generated responses for note grading

Break

Panel Discussion: Future of AI in Simulation

Panelists:
Janet M. Reed, PhD, RN
David L. Rodgers, EdD, NRP, FAHA, FSSH
Marc Triola, MD
Anne White, PhD, RN, CNE

This facilitated session will offer the audience an opportunity to engage with experts on topics such as the ethical considerations of AI in simulation, research priorities, future applications, and leveraging AI to teach diversity, inclusion, and health equity topics. Bring your questions—our experts are prepared to offer valuable insights and guidance.

Wrap-up/Closing

Deepak Pradhan, MD, MHPE, FCCP, ATSF
Associate Medical Director
New York Simulation Center for the Health Sciences (NYSIM)

Vendor Demonstrations

Nick Stoick
Vice President of Sales, PCS

Join the PCS team as they share how you can add conversational AI to ANY patient simulator with the SimVox smart speaker. We'll walk through creating and deploying your own custom AI-generated scenario in only minutes!

Shruti Natarajan
Director of Product Marketing, Lumeto

Scale up your sim program with a new AI-enabled Sim Lab, tailored to meet your program objectives, and ready to use in minutes. Lumeto's InvolveXR, is the most customizable immersive sim lab that can be integrated with programs across the healthcare spectrum, catering to educators and learners at every level of their competency, enhancing learning outcomes tied to individual and team decision-making, problem-solving, de-escalation and complex or rare procedures. Join us to see novel use cases of GenAI in the form of customizable AI Characters and as an aide to instructors and educators. Visit www.lumeto.com to learn more.

Symposium Director

Deepak Pradhan, MD, MHPE, FCCP, ATSF
Associate Medical Director
New York Simulation Center for the Health Sciences (NYSIM)

Deepak Pradhan, MD, MHPE, FCCP, ATSF is the Associate Medical Director at NYSIM, and the Associate Program Director for the Pulmonary & Critical Care Medicine (PCCM) Fellowship Program at NYU Grossman School of Medicine, and Faculty in the Bellevue Special Pathogens Program and the National Emerging Pathogens Training and Education Center. He is on the editorial board for ATS Scholar. He attends in the Medical Intensive Care Unit at NYULH Tisch Hospital and Bellevue Hospital. His interests include simulation education, point-of-care ultrasound, procedural competency, faculty development, and all things related to medical education.

Plenary Speaker
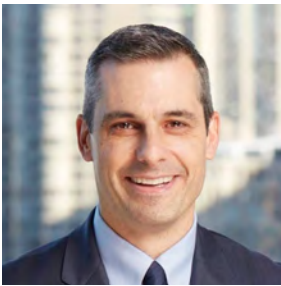
Marc Triola, MD
Professor of Medicine
Associate Dean for Educational Informatics
Director, Institute for Innovations in Medical Education
NYU Langone Health
NYU Grossman School of Medicine

Marc Triola, MD is a professor of medicine, the associate dean for educational informatics, and the founding director of the Institute for Innovations in Medical Education (IIME) at NYU Grossman School of Medicine. IIME combines education strategies with new informatics solutions to connect patient care and education at NYU Langone in a research and innovation initiative that is translational, empowers transformational change in our school, and benefits our patients. Dr. Triola's research focuses on the use of AI tools to efficiently personalize education and give new insights to programs and coaches.   His lab develops new learning technologies, AI-driven educational interventions, and defines educationally sensitive patient and system outcomes that can be used to assess training.

Session Speakers

Tavinder K. Ark, PhD
Associate Professor, Data Science Institute
Medical Colleges of Wisconsin

Tavinder's research interests involve studying the effective use of data visualization to facilitate learning in students, developing and validating artificial intelligence models as co-collaborative systems in medical education, (https://feedbackassist.mcw.edu/) and studying the transition to residency using Night-onCall (https://www.nightoncall.org/), and evolving the statistically modeling techniques for ideal point vs. Likert Scales, growth trajectories, and latent class/profile analyses.

Mary Beth Maguire, DNS, RN, CNE, CHSE
SimCapture Impact Manager
Laerdal Medical

Dr. Mary Beth Maguire is the Laerdal Medical SimCapture Impact Manager for the Southeastern United States and Caribbean Islands. Before joining Laerdal, Dr. Maguire was an Assistant Professor of Nursing at Kennesaw State University. She has extensive experience in healthcare simulation through her work as a Simulation Coordinator and work with simulation curriculum design, implementation, and evaluation. Mary Beth is dual certified as a Nurse Educator and Healthcare Simulation Educator. She has published extensively on topics related to simulation innovation, faculty development, and interprofessional education.

Janet Reed, PhD, RN
Assistant Professor of Nursing
Kent State University

Janet M. Reed PhD RN is an Assistant Professor at Kent State University. She specializes in nursing education, curriculum development, and educational technology. Her research focuses on how technology affects teaching and learning in nursing education including the social, emotional, and pedagogical effects of technology. This includes simulation technologies, gaming for nursing education, generative AI, and innovations to improve the health and well-being of nursing students, patients, and practicing nurses.

David L. Rodgers, EdD, NRP, FAHA, FSSH
Director, Interprofessional Simulation Center, Indiana University, Bloomington, IN
Assistant Professor of Medicine, Indiana University School of Medicine

David Rodgers is the director of the Interprofessional Simulation Center on the Regional Academic Health Center campus of Indiana University, Bloomington. He is also a clinical assistant professor of medicine in the IU School of Medicine. Dr. Rodgers holds a doctorate in Curriculum and Instruction. Clinically, he is a national registered paramedic (NRP) with over 35 years' experience including time as a flight paramedic, EMS supervisor, and manager of a hospital-based critical care transport service.

With over 25 years in simulation-based education, Dr. Rodgers has a wide range of experience in simulation center operations and simulation educational program development. In recognition of his contributions to simulation and the Society for Simulation in Healthcare, he was elected a Fellow of the Society for Simulation in Healthcare (FSSH) in 2024. A long-time volunteer with the American Heart Association, in recognition for his contributions to Emergency Cardiovascular Care, Dr. Rodgers was appointed a Fellow of the American Heart Association.

Anne White, PhD, RN, CNE
Professor, Coordinator MSN Nursing Education
Wellstar School of Nursing
Kennesaw State University

Dr. Anne White is a Professor of Nursing at Kennesaw State University and has certification through the National League for Nursing (NLN) as a Certified Nurse Educator (CNE). She holds a PhD in Nursing from the University of Alabama at Birmingham, a Master of Science in Nursing from Emory University, and a Bachelor of Science in Nursing from Florida State University. Dr. White has published her research on simulation, mentoring, and creative teaching/learning strategies in major nursing journals and has presented her work at numerous international conferences.