

HKUMed Teaching and Learning Expo: Harnessing AI to Revolutionize Health Sciences Education

Nov 27-28
2025

From Chatbots to Clinicians: How AI is Reshaping Medical Education and Student Development



Prof Gary LAU

劉巨基教授

Assistant Dean (Education Innovations),
The University of Hong Kong

香港大學李嘉誠醫學院助理院長 (教學創新)

Abstract

The rapid integration of artificial intelligence (AI) into medical education brings both transformative potentials alongside critical challenges. AI-powered chatbots and virtual patient simulations provide new opportunities that may enhance clinical reasoning, adaptive learning, and communication skills; offering personalized, scalable training beyond traditional methods. Automated assessment tools provide real-time feedback, while AI-driven case simulations prepare students for complex decision-making. However, overreliance on AI threatens essential physician competencies, such as independent critical thinking and humanistic patient care.

As AI reshapes medical education, fostering AI literacy is vital – ensuring future clinicians understand its ethical, legal, and professional limitations. Educators must balance AI's advantages with its limitations. This talk explores how a blended approach can maximise AI's benefits whilst preserving the irreplaceable role of human mentorship and humanities-based education, ensuring physicians remain both technologically adept and patient-centred.

Biography

Professor Gary Lau is currently Assistant Dean (Education Innovations), Director of EdTech and SIMHSE (Students in Medical and Health Sciences Education) and Director of HKU Stroke at HKUMed. He has published over 180 articles/book chapters on stroke/medical education. He and his team have pioneered a number of initiatives relating to educational technology and students as partners. He has received numerous prestigious awards which include the Henry Walton Prize from the Association for the Study of Medical Education and Exemplary Teaching and Learning Silver Award from eLearning Forum Asia. He was recognised as one of the Ten Outstanding Young Persons of Hong Kong in 2024.