

The Impact of Artificial Intelligence in Advancing Continuing Health Professions Development in Southeast Asia

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Introduction

Continuing Professional Development (CPD) is an essential component of lifelong learning for healthcare professionals, ensuring they develop update and refine their knowledge, skills, attitudes and behaviours across all relevant areas of practice. The growing healthcare demands in South-East Asia due to changing demographics and trends in communicable and non-communicable diseases has made it imperative for medical professionals to undergo continuous learning and development beyond their initial training..

The implementation of Continuing Professional Development (CPD) in the South-East Asia (SEA) region faces several challenges. Limited financial resources, inadequate infrastructure, and a shortage of qualified trainers hinder effective CPD delivery. The region's diverse healthcare systems, along with regulatory and policy gaps, create inconsistencies in CPD implementation. Additionally, a lack of awareness among healthcare professionals and institutions reduces engagement and investment in CPD initiatives (Karunathilake *et al.*, 2024).

Artificial Intelligence driven solutions have the potential to address many challenges hindering the effective implementation of Continuing Professional Development (CPD) in the South-East Asia (SEA) Region.

AI in CPD: Transforming Medical Education

The role of AI role in CPD is not just about convenience; it has the potential to revolutionize healthcare education by offering customized learning experiences, providing predictive analytics on competency gaps, and supporting decision-making processes. In Southeast Asia, the rapid integration of AI into CPD is reshaping traditional learning paradigms. AI-powered CPD platforms offer adaptive learning, real-time assessments, and automation of administrative tasks, making education more efficient and personalized. AI-based CPD programs can significantly enhance professional competency, reduce knowledge gaps, and ensure that healthcare professionals maintain a high standard of care (Karunathilake *et al.*, 2022).

The application of AI in developing clinical expertise is a fast expanding area of research, along with AI in areas such as diagnostics and radiology. In these fields, AI technologies, together with big data and cloud computing, support physicians in clinical decision-making. Healthcare professionals must acquire proficiency in utilizing AI through professional training programs, self-directed learning, or online courses to enhance efficiency and accuracy in medical practice (Sun *et al.*, 2023).

At present, AI is being extensively integrated into medical education. For example, the IBM Watson system employs evidence-based learning models to assist medical students in making informed decisions regarding various oncology treatments. Similarly, the Virtual Patient Learning System (VPLS) simulates real

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