

# Master's degree program in nursing informatics at Tehran University of Medical Sciences

**Arpi Manookian<sup>1</sup>, Asieh Darvish<sup>2</sup>, Leila Sayadi<sup>3</sup>,**

*Associate Professor, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran<sup>1</sup>,*

*PhD Information Technology Management, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran<sup>2</sup>,*

*Associate Professor, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran<sup>3</sup>*

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Arpi Manookian, Asieh Darvish, Leila Sayadi

School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran

nar-manookian@sina.tums.ac.ir

sedarvish@yahoo.com

l-sayadi@sina.tums.ac

According to the NMC standards of proficiency for nurses, it is essential to be proficient in applying digital technology in order to maximize the use of resources and provide interdisciplinary care that is safe and effective for patients. By integrating informatics into nursing science, it will lead to quality care improvement through enhancing patient record storage and retrieval, reducing mistakes, improving information flow, saving time, and empowering patients.

Given the rapid advancement of the information age, it is necessary to invest in informatics education to improve quality of care. Accordingly, the curriculum of Nursing Informatics was developed and the program was launched to admit foreign students into the master's program at the School of Nursing and Midwifery, Tehran University of Medical Sciences in 2022. This program aims to guide nursing students in delivering effective services in clinical performance, education, research, and management through the utilization of information technology.

Key words: education, nursing, quality of health care, nursing informatics, technology

## Digital technology to enhance students' learning experience in science education

**Kim Hung Lam<sup>1</sup>, Chun Sang Chan<sup>2</sup>, Ada Tse<sup>2</sup>, Yan-xiang Zhao<sup>3</sup>, Ming-cheung Larry Chow<sup>4</sup>, Wing-yiu Michael Yu<sup>5</sup>, Kwong-chak Gary Cheung<sup>6</sup>, Mitesh Patel<sup>2</sup>, Anthony Ho<sup>7</sup>, Kai-pan Mark<sup>2</sup>**

*Lecturer/Department of Applied Biology and Chemical Technology/The Hong Kong Polytechnic University<sup>1</sup>,*

*Educational Officer/Education Development Centre/The Hong Kong Polytechnic University<sup>2</sup>,*

*Associate Head/Department of Applied Biology and Chemical Technology/The Hong Kong Polytechnic University<sup>3</sup>,*

*Head/Department of Applied Biology and Chemical Technology/The Hong Kong Polytechnic University<sup>4</sup>,*

*Professor/Department of Applied Biology and Chemical Technology/The Hong Kong Polytechnic University<sup>5</sup>,*

*Senior Lecturer/Department of Applied Biology and Chemical Technology/The Hong Kong Polytechnic University<sup>6</sup>,*

*Senior Technical Officer/Education Development Centre/The Hong Kong Polytechnic University<sup>7</sup>*

We integrated digital technology to enhance students' learning and to support our educational pedagogies. Our goal is to improve students' engagement, develop students' skills like critical thinking, active learning, teamwork, peer-learning, and problem-solving. We utilize digital technology, such as Generative Artificial Intelligence (AI), Hybrid Immersive Virtual Environments (HIVEs) and others, to explore new teaching and learning opportunities for our students. Additionally, we analyzed learning analytics data to investigate the impact of digital technology on students' learning.

Our approach included flipped classroom and blended learning, which incorporate virtual learning spaces, outside classroom components, and technology-assisted laboratory classes. We aimed to enhance students' learning experience and increase engagement by utilizing virtual learning tools such as Blackboard LMS, Panopto, Padlet, Zoom, MSTeams, EDtools, Microsoft Onedrive, MSform and Interactive Whiteboard (IWB).

Feedbacks from surveys and students' responses were positive, with high satisfaction and enjoyment reported. Academic performance also indicated a positive impact on learning outcomes. Our preliminary results may post the potential to create new learning opportunities in tertiary all-round education. Furthermore, these findings can help us to redesign "new-normal" learning approaches after the COVID-19 pandemic.

# Recent Advances in AI for Personalized Education: A Case Study from Chiang Mai University

**Arnan Sipitakiat, Siriwut Buranapin, Rattasit Sukhahuta**

*Chiang Mai University*

In an era where generative AI reshapes educational paradigms, Chiang Mai University has embarked on a transformative journey to incorporate Large Language Models (LLMs) into its pedagogical practices towards personalized learning. Personalized education aims to tailor the learning experience to individual students, considering their unique needs, interests, and abilities, making them active participants in their own learning process, and emphasizing personal freedom and autonomy. This article examines a policy-driven initiative, supported by a comprehensive framework, demonstrating progress in tailoring learning trajectories and enhancing student engagement through three key strategies. Firstly, it explores the use of LLMs to enable flexible class deliveries, through customized quiz assignments, interactive Q&A, and individualized project-based learning. Secondly, it addresses the shift from outcome-oriented assessment to process-driven learning, accommodating diverse learning styles through self-directed and self-reflection learning activities. Lastly, it highlights the importance of ethical guidelines in AI tools' application, ensuring a balanced approach to educational technology. The discussions offer insights into the potential of LLMs to transform educational paradigms, offering lessons for policymakers and institutions aiming to leverage AI for personalized education.