

PRESCRIPTION

Latest news and updates from the Faculty of Pharmacy

Artificial Intelligence: Moving forward to a new era of education

Over the past two decades, the landscape of higher education has undergone a profound transformation, primarily driven by technological advancements. In the early 2000s, technology's role in education primarily revolved around e-learning platforms and email communication, with online courses being relatively rare. However, from the mid-2000s onwards, a revolutionary shift occurred with the widespread adoption of Learning Management Systems (LMS) and the emergence of Massive Open Online Courses (MOOCs). These days, educational apps and interactive digital content have become commonplace. These platforms have ushered in a revolution in education by providing a versatile digital toolkit that goes beyond mere video lectures and interactive discussion forums. They now incorporate advanced assessment mechanisms, including machine learning-based grading. This revolution has paved the way for blended and online learning approaches, enhancing accessibility and flexibility in higher education. It is also undeniable that the COVID-19 pandemic in 2020 accelerated the adoption of remote and online learning technologies.



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The internet connects students to a global repository of knowledge. Unfortunately, in this age of artificial intelligence (AI), traditional learning activities such as memorization may seem obsolete. AI, exemplified by ChatGPT, can perform exceptionally well in the classroom and can even become a potential replacement for lecturers. While the potential threats of AI have been discussed extensively, from the perspective of the Technology Acceptance Model (TAM), there is also a point of view that AI can be seen as a productivity tool that assists in assignments and presentations, akin to tools used for creating charts and graphs. Hence, the challenge in education is having effective teacher leadership to develop student character, so the ChatGPT is applied for good use (Crawford et al., 2023). The effect of COVID-19 on fears for the future and on the soft skills development of students has been documented (Brennan et al., 2023). However, with the assistance of AI, students can develop critical skills like problem-solving, critical thinking, and creativity, which are increasingly vital for addressing complex societal challenges. Consequently, pedagogical approaches in pharmacy education need to adapt and align with the opportunities offered by technology. Technology in education is more than content delivery and formative assessments, it should encourage individual inquiry, investigation, and discovery, thus promoting a deeper understanding of subjects. However, to achieve this, a flexible curriculum and reduced reliance on synchronous delivery are crucial.

Fulbright Specialist Project (FSP-P006720): Gearing towards the education of post COVID-19

In contemporary higher education, perhaps the most significant challenge is not content delivery but character development, especially in the post COVID-19 era, if traditional lecture-based teaching persists, and students are passive recipients of knowledge. Nonetheless, as society evolves, education must adapt to prepare

individuals for evolving roles and challenges. UiTM has introduced a student-centered learning approach to empower students to take charge of their learning journey. By cultivating a sense of autonomy and ownership, students can foster a deeper and more meaningful connection with the subject matter. It is acknowledged that students may initially struggle with autonomy, particularly if they are accustomed to a more authoritarian teaching approach from their early education years.



Discussion between Prof. Slav and the Dean of Faculty Pharmacy on AI in pharmacy education

Breaking this cycle is imperative. In this project, steps have been identified to enhance current teaching and learning practices. Students are going to be provided with digital learning materials and resources outside the traditional classroom, freeing up valuable class time for interactive discussions, collaboration, and hands-on activities facilitated by technology. It is imperative that the materials such as multimedia content, notes, and quizzes are available online in the LMS such as U-FUTURE. Reducing synchronous teaching and increasing student engagement, rather than relying on lecturers delivering content during class time, must be designed and adopted. Furthermore, student learning styles can significantly impact their academic performance. Common learning styles include visual, auditory, kinesthetic, and reading/writing learning style. In this project, we developed and conducted a survey of Pharmacy students' learning styles to tailor educational technology to individual learning styles and paces. Effective teaching strategies often involve combining various approaches to accommodate diverse learning preferences, thereby enhancing the overall educational experience. By integrating technology into teaching and learning activities, data can be generated from multiple sources. For example, collecting, processing, analyzing, and visualizing data from the LMS are important for extracting valuable insights. This ongoing project aims to obtain data analytics results that enable lecturers to track student progress, identify at-risk students, and improve effectiveness.

Dr Salfarina Ramli, Prof. Vyacheslav Dushenkov
Fulbright Specialist Program

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Dr Salfarina Ramli is a senior lecturer from the Department of Pharmacology and Pharmaceutical Chemistry, Faculty of Pharmacy, UiTM. She proposed a project that aims to identify infallible methods and plans to shift from the traditional methods of teaching. Her project was approved by the U.S. Department of State's Bureau of Educational and Cultural Affairs as part of the Fulbright Specialist Program. The project hosted a Fulbright Specialist; Professor Vyacheslav Dushenkov from the Hostos Community College, CUNY, New York. Professor

Dushenkov was in the Faculty of Pharmacy at UiTM Puncak Alam from July 28th to August 14th, 2023. This collaboration has been instrumental in fostering ongoing research and innovation in pedagogy.



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