Editor's Note

AI and the Future of Research: Transformations, Challenges, and Ethical Considerations

Dear Readers

As we embark on the fifth issue of the ASEAN International Sandbox Conference proceedings, we find ourselves at the crossroads of technological evolution, where artificial intelligence (AI) is redefining the landscape of research and innovation. The proliferation of AI-powered tools such as DeepSeek, ChatGPT, and other generative AI applications is revolutionizing the way scholars conduct literature reviews, generate insights, and synthesize data.

AI has become an indispensable ally for researchers, accelerating the discovery process, enabling real-time data analysis, and enhancing interdisciplinary collaborations. Platforms like DeepSeek, with their deep-learning capabilities, have drastically improved natural language processing and predictive modeling, making complex analyses more accessible. ChatGPT and SciSpace have enhanced academic writing and literature synthesis by generating summaries, refining arguments, and providing contextual insights across diverse fields. AI-based recommendation engines are also transforming how researchers discover relevant studies, customizing search results based on previous queries and citation networks. Furthermore, automated data extraction and visualization tools are allowing scholars to process and interpret large datasets more efficiently, making AI an indispensable force in modern research methodologies.

However, with these advancements come significant ethical and methodological considerations. The reliance on AI-generated content raises concerns about the authenticity of research, potential biases embedded in AI algorithms, and the diminishing role of critical thinking in scholarly work. There is also the challenge of intellectual property rights, as AI-generated outputs blur the lines of authorship and originality. Furthermore, the over-dependence on AI may inadvertently contribute to homogenized research outputs, stifling creativity and diversity of thought.

As we navigate this new era of AI-enhanced research, it is imperative to foster a balanced approach—leveraging AI's capabilities while preserving the foundational principles of academic excellence. The ASEAN International Sandbox Conference remains committed to providing a platform for dialogue, innovation, and critical reflection on these pressing issues. We invite scholars, practitioners, and policymakers to engage in this evolving conversation, shaping a future where AI serves as a catalyst for responsible and impactful research.

Warm regards,

Kanitsorn Terdpaopong

Editorial by Associate Professor Dr. Kanitsorn Terdpaopong
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