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Beyond Lectures: Insights from Business Discipline-

(Reflections, Transformations, and the Human Side of Teaching)

Chief Editor
Dr. Azila Jaini

UNIVERSITI TEKNOLOGI MARA
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TEACHING ECONOMICS IN THE AGE OF AI

Nur Fatihah Shaari, Mohd Azim Sardan, Bazri Abu Bakar

Introduction

Recently, artificial intelligence (AI) has become a famous tool in everything, especially in education. ChatGPT, Gemini is an example of AI tools commonly used in education, progressively influencing the production, accessibility, and analysis of information. This transformation prompts significant enquiries for economics educators regarding the content of teaching and the methodologies employed in the classroom. Economics education needs to adapt the use of AI, to provide students with the analytical and critical thinking skills essential for comprehending contemporary economies influenced by digital technologies.

Based on the observations, most of the students are extremely dependent on AI tools. Students are increasingly utilising AI-based platforms for assistance with explanations, summarising academic materials, and designing research. Even though these technologies offer significant support for learning, it also creates new challenges in terms of academic integrity, critical thinking, and methodological rigour among students.

Thus, this article will explain the importance, sharing of experiences and the challenges in teaching economics, in the era of AI, and it also helps educators to modify their teaching strategies to become more meaningful learning in class. This article will also demonstrate the responsible integration of AI into economics education, ensuring the preservation of the discipline's intellectual foundations. In the Malaysian higher education context, educators face the challenge of balancing technological innovation with the necessity of fostering a robust conceptual understanding among students. This is especially pertinent given the swift advancements in AI and their implications for economic theories and practices.

The Relevance of AI in Economics Education

Following the worldwide current update, Artificial intelligence (AI) has become an important tool for economic transformation. Not only in education, however in economic activities, top management decisions including digital platforms, financial technologies, and automated decision-making systems, generated significantly with AI algorithms. Thus, it is essential not only for educators but also for students to link the interplay between technology and key economic concepts, including productivity, labour markets, market structure, and economic policy.

Nowadays, students can explore and benefit from AI in learning, especially when taking Malaysian economics courses, which can provide an insight into the discourse on economic transformation. Malaysia's development strategies are placing greater emphasis on the digital economy, innovation, and the adoption of technology. The Digital Economy Blueprint (MyDIGITAL) underscores the critical role of digital technologies in fostering economic growth and enhancing competitiveness.

In class, students can use AI as a tool to do a classroom discussion, connect the economic issues, including employment, automation, and the future of work, related to syllabus. Mostly, students have a difficulty to imagine Malaysia's transition from an agriculture-based economy to a knowledge-based economy, making students often enquiry about the potential impacts of AI on job opportunities and productivity from the transition. The discussions indicate that students possess an awareness of technological disruptions and show a strong desire to link economic theory with current developments. Thus, using AI for discussion, linking economics education effectively with theoretical concepts and practical economic challenges provide an idea to students, to explore Malaysia's economy before and after independence. They can easily prompt AI to prepare a story timeline with pictures, which suit their understanding.

Teaching Malaysian Economics to Diploma Students in the AI Era

The use of AI in class can simplify the economic concepts, while also emphasising their significance to national development. AI technologies have impacted teaching methods and student learning behaviours, resulting in more interactive and personalised educational experiences that address the unique needs of each student.

Enhancing Classroom Engagement

As known, AI provides a lot of benefits to users, such as its ability to enhance student learning outside of traditional classroom settings. Most of the university students use AI methods to gain clearer explanations of economic concepts such as inflation, unemployment, and fiscal policy. These tools can support students who encounter difficulties with technical terminology or understanding when referring to journal articles. Students sometimes accept AI-generated explanations without critically checking their accuracy and reliability. As a result, a method used in class encourages students to compare AI-generated explanations with textbook definitions and lecture materials. As a result, students develop the capacity to critically evaluate information sources rather than relying solely on AI. However, the lecturer will not allow students to only depend on one source of information such as AI. They also need to clarify all the AI's information with the textbook and journal articles, which were created by scholars.

Connecting AI with Economic Development

For lecturers, AI improves the teaching of Malaysian economics by linking technological advancements to economic policies. Malaysia's progress in Industry 4.0 and digital transformation provides tangible examples for analysing economic growth and productivity. When discussing economic growth, lecturers often emphasise the importance of AI and digital technology in fostering innovation, entrepreneurship, and improvements in productivity. Students can use AI to analyse how the adoption of technology influences labour demand, skill requirements, and the distribution of income. These discussions help students recognise that economics extends beyond theory; it is closely connected to legislative choices and technological developments that will shape their future careers.

Teaching Research Methodology to PhD Students in the AI Era

The AI platform not only can be used by undergraduate students; however, it can also be used by a postgraduate student, who can provide an instruction of research methodology for PhD students. Postgraduate students are increasingly utilising AI tools to assist with literature reviews, data analysis, and academic writing for their thesis. However, students need to remember, "you can use AI as a tool to prepare your thesis, but please use it in a correct way, which is to get the idea and create your own words before you publish".

AI and Literature Review

When preparing a proposal or thesis, literature review is an important part and will be critically reviewed by examiners as it provides a justification of theories and variables used in research. AI tools can assist researchers in identifying certain articles, summarising findings, and organising academic sources. In research methodology classes, students are encouraged to utilize AI-assisted tools for the preliminary exploration of research topics. However, students must remember that AI-generated can only summaries, and it cannot substitute or replace the original academic articles. Grasping research design, theoretical frameworks, and empirical methods necessitates active involvement with academic literature.

Students are tasked with exercises that involve comparing AI-generated summaries to the original research papers to strengthen this principle. This approach enables individuals to identify possible oversimplifications and enhance their analytical reading abilities.

AI and Research Design

For PhD students, AI tools can help them in suggesting research ideas, choose appropriate methodologies, and identify the relevant data analysis method. For example, AI can recommend which quantitative techniques to be used in research, such as the type of regression analysis, or qualitative methods, like thematic analysis, depending on the research topic. However, to rely on AI for methodological decisions may reduce the researcher's understanding of research design principles. Thus, the teaching method in the classroom emphasises that AI should serve as a supportive tool rather than a decision-making authority. Students should consistently justify their methodological choices through theoretical reasoning and clearly defined research objectives. In research technique courses, students are encouraged to assess how well AI-generated recommendations align with established research methods and the objectives of their studies.

Academic Integrity and Responsible AI Use

Even though Ai provides a lot of benefits to users, it still has its challenges to maintain academic integrity. AI-generated can produce a knowledgeable paragraph that appears academically in an easier way. This technology risks fostering an over-reliance on AI-generated content among students, potentially hindering their ability to develop independent arguments. Students emphasised the importance of transparency and the ethical application of AI in academic pursuits to address this challenge. Students are supposed to use AI tools for generating new ideas or improving their language skills only, not copy and paste exactly from an AI-generated system. Additionally, they should demonstrate their own critical analysis and intellectual input. Assessment techniques have been adapted to prioritise research reasoning, methodological clarity, and the originality of ideas, moving beyond a focus on textual output. This approach ensures that students not only utilise AI technologies but also engage critically with the subject matter and produce unique insights.

The Changing Role of the Economics Educator

The use of AI in teaching has significantly changed the responsibility of the lecturer. Lecturers mostly play an important role as knowledge providers to students through lectures, textbooks, and classroom discussions (Khakpaki, 2025; Mary & Joyce, 2024). Recently, in the era of AI, students can easily access the information using digital platforms and AI-driven tools. The role of the lecturer is shifting from merely delivering information to facilitating learning, fostering critical thinking, and promoting responsible technology use. Economics lecturers must adapt their teaching strategies to facilitate the continued development of students' analytical and conceptual foundations. Instead of viewing AI technologies as competitors, educators can utilize these tools to improve learning outcomes while helping students develop critical interpretation and evaluation skills for information.

In conjunction with the educational system, lecturers act as a provider, providing information and practical advice to students. Students in class totally depend on the lecturer and only with textbooks, as they are not trying to find information from other sources. Thus, the existence of AI systems helps not only students in class but also lecturers to have more information and reflect it to the real situation (Weidmann, 2024). Changes in education methods can provide more explanation among students. As an economic lecturer, promotes an environment where students are encouraged to challenge assumptions, analyse real-world economic issues, and apply theoretical concepts to practical scenarios. Classroom discussions, case studies, and problem-based learning activities play a crucial role in facilitating active engagement with economic concepts among students (Kenedy, 2024). For instance, in the context of Malaysian economic policies, students may be encouraged to examine government initiatives, including digital economy strategies and industrial transformation programmes. AI tools can provide students with background information; however, it remains essential for them to apply the economic frameworks acquired in class to interpret the implications of the policies.

AI tools promote the adoption of more interactive teaching methods among educators. Instructors have the ability to design activities that encourage collaborative efforts among students, fostering debate and problem-solving skills rather than solely delivering lectures. Students may be tasked with utilising AI tools to produce economic explanations, followed by a critique grounded in established economic theories. This activity positions AI as a collaborative learning partner instead of merely a tool for expediting assignment completion. Methods of interactive learning, including simulations, policy debates, and group projects, are vital components of economics education (Lubbe et al., 2025; Kenedy, 2024). Automated systems struggle to replicate the analytical skills fostered by these activities in students.

In addition to providing academic instruction, educators serve an essential mentoring function. Students in the AI-driven educational landscape may experience uncertainty in balancing technological support with their own independent learning efforts. Instructors can support students by sharing their experiences, fostering curiosity, and highlighting the significance of intellectual integrity (Hudon et al., 2024). Mentorship plays a crucial role in fostering students' confidence in their analytical skills, encouraging them to minimise their dependence on technological tools. Mentorship plays a crucial role in economics education, as students are being equipped for positions that will impact economic policy, business decisions, and research advancement.

Challenges of Integrating AI in Economics Education

Using AI in teaching will help educators to improve their teaching skills, however embedded AI in teaching will also give challenges especially when integrating economics with AI. One of the challenges faced by educators is to maintain the academic rigour, fairness, and critical thinking skills among students and lecturers themselves. Both lecturers and students need to use AI in the right way, get an idea from AI and create their own words. Our experiences in the classroom with diploma and postgraduate students highlight the necessity for caution regarding several aspects when integrating AI into economics education.

However, the most critical issue when using AI is that students may become overly dependent on AI tools. Students might depend on AI tools to do their assignment for explanation, analysis, and essays, which will reduce their ability of critical thinking skills. Critical reasoning is essential in economics education for understanding complex relationships, such as causality, trade-offs, and the implications of policy decisions. Excessive reliance on AI-generated responses may lead students to accept these answers uncritically, without examining the underlying assumptions or evaluating the robustness of the arguments presented. This may hinder their ability to independently apply economic concepts. In my experience teaching diploma students, based on observation, students tend to copy and paste AI-generated explanations for economic concepts without fully understanding the concept and meaning of the task. They also sometimes prompt AI to explain the terms of inflation or fiscal policy without accurately reflecting the context of Malaysia's economy. This shows the significance of instructing students to use AI as a supportive tool for their learning, rather than viewing it as a substitute for the learning process.

A significant issue is upholding academic integrity. AI-generated text can produce well-organised academic writing in a matter of seconds, making it challenging to distinguish between genuine student submissions and content created by AI. This matter holds particular significance in research methods courses. Doctoral students must formulate innovative research concepts, conduct critical literature evaluations, and provide methodological rationales. Excessive reliance on AI-generated content by students can lead to a deficiency in originality and authenticity in their research. Educators may need to modify their assessment methods to address this issue. In addition to written assignments, teachers can provide students with opportunities for presentations, oral exams, research proposals, and reflective discussions. These formats require students to articulate their reasoning and the processes behind their studies. Such methods encourage students to demonstrate genuine

comprehension of the material rather than merely submitting refined AI-generated assignments.

AI technologies can provide useful explanations and suggestions; however, they may not always be accurate or contextually appropriate. AI systems generate responses by identifying patterns in data rather than demonstrating a genuine understanding of economic theories or policy frameworks. Students may not consistently recognise these boundaries. AI-generated economic explanations may oversimplify complex theories or provide outdated and generalised knowledge that is not applicable to Malaysia's economy. One of the responsibilities of educators is to guide students in developing critical thinking skills regarding information generated by AI. Encouraging students to compare AI-generated responses with academic sources such as textbooks, journal articles, and official publications can enhance their ability to verify and validate information.

A significant issue with the integration of AI in education is the unequal access to digital resources among individuals. Certain students lack equal access to high-speed internet, sophisticated software, or digital devices. Students from low-income families may face challenges in fully utilising AI tools due to technological barriers. The digital divide may hinder certain students' ability to study effectively and achieve academic success. Consequently, educational institutions must ensure that the integration of technology does not inadvertently disadvantage any groups of students. Providing institutions with access to digital resources, training sessions, and technical assistance can effectively address these disparities.

The effective integration of AI in education largely depends on the readiness of educators. Numerous educators may lack familiarity with AI tools or may be uncertain about their effective integration into lessons. Insufficient training may lead teachers to avoid using AI altogether or struggle to instruct students on its responsible use. Programs for professional development, workshops, and collaborative learning opportunities among educators can greatly improve digital literacy among lecturers. It took me some time to understand how to effectively integrate AI technologies into classroom discussions and research guidance. Support from the institution and the sharing of expertise among colleagues can significantly simplify this procedure.

It is essential to ensure that students continue to enhance their analytical and critical thinking abilities. Economics students should critically examine their beliefs, interpret factual information, and assess the advantages and disadvantages of various policies. Students might forfeit opportunities to develop independent thinking skills if they rely excessively on AI-generated solutions. Consequently, educators must design learning activities that encourage students to analyse AI outputs, critique economic reasoning, and apply theories to real-world scenarios. One effective approach is to have students evaluate whether an AI-generated explanation sufficiently captures a specific economic model or policy issue. This encourages students to critically engage with economic concepts rather than passively accepting information.

Preparing Future Economists for an AI-Driven World

Other important fields such as economics can also use AI in generating and shaping data analytics, automation, and digital platforms. Besides, using AI in teaching economics can provide students with a diverse set of skills that encompass:

- A solid theoretical foundation in economic principles
- Understanding of data and analytical skills
- Understanding of technological change
- Consideration of ethical implications and policy development
- Ability to adjust to changing economic conditions

AI ought to be regarded as a tool that enriches the learning experience, rather than substituting essential economic reasoning. Through the thoughtful integration of AI in education, teachers

can assist students in cultivating the skills necessary to analyse intricate economic challenges in today's digital landscape.

Conclusion

As a conclusion, using AI in teaching is one of the updated techniques that can be adapted by a lecturer. AI presently can give advantages, but at the same time provide challenges to users. It can be used in learning, research, and education especially to improvise learning techniques from traditional to updated one. As well known, AI technologies serve as powerful tools for enhancing education, supporting research, and connecting economic theory to real-world applications. Even though the AI system is powerful as it can provide all information in one click, the main concern of academic integrity is still debating, and it makes students less capable in critical thinking skills. To be true, Students are allowed to use AI, and lecturers also need to upgrade themselves, get more knowledge and experience in using AI tools in education. Based on experience, educators ought to promote the use of AI as a learning tool for students but still need to emphasise the significance of analytical reasoning, methodological rigour, and ethical considerations. One day, the education system will be replaced by AI, but do not let the AI control all knowledge that we have as a lecturer. AI can replace education, but it cannot replace the attitude, behaviour of human rights. Through a thoughtful and critical engagement with AI, educators can equip future economists with the skills to navigate and influence an increasingly digital and technology-oriented world.

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