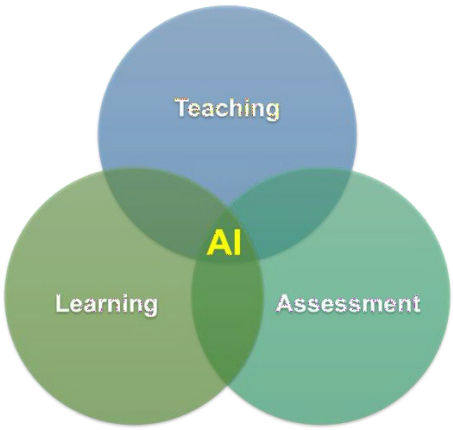
Adapting to generative AI tools in teaching, learning and assessment

Innovation opportunities for educators and students

A threat to academic integrity and value

Generative AI tools can pose a threat to academic integrity, teaching and learning outcomes. However, paying scant attention to the strengths of generative AI tools can run the risk of missed opportunities for students to learn relevant skills effectively, and as a result, hindering employability and student success. Therefore, a measured approach is to ensure generative AI tools are utilised constructively, while managing the potential threats and, where possible, preconceive future challenges and proactively adapt to the rapid evolution of generative AI.



Based on the analysis of ChatGPT, the following checklists are designed to help academics take account of generative AI tools in teaching, learning and assessment. The suggestions in the checklists are neither definitive nor exhaustive, leaving room for academics to make adjustments that are suitable for their subjects, programmes/modules and students.

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Teaching suggestions

Questions	Suggestions	Yes/No
Is there a need to review the curriculum design (e.g. the programme content, learning objectives, teaching plan and learning activities)?	• Consider the opportunities and threats in the SWOT analysis • Teach knowledge and skills that are relevant in an AI-driven economy • Focus on higher-order cognitive skills, such as concept acquisition and application, synthesis of evidence, critical and creative thinking, systematic decision making, solving complex and practical problems	
Can generative AI tools increase teaching effectiveness and efficiency?	• Generate ideas and drafts for curriculum design, module outlines, lesson plans and teaching activities • Create assessments such as quizzes, topics for group projects, essay and exam questions, sample answers at different performance levels • Produce teaching materials such as case studies, code, summaries and translations	
What are the best practices and how do colleagues in your field use generative AI tools in their teaching?	• Evaluate different approaches to using generative AI tools • Attend CPD sessions organised by the ALE team • Test new ideas and adopt best practices	

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Learning suggestions

Questions	Suggestions	Yes/No
Are there any guidelines on the legitimate use of generative AI tools in the programme/module?	• Spell out permissible and unacceptable applications of generative AI tools • Acceptable applications: e.g. preliminary research, writing improvement and self-learning • Academic misconduct: using generative AI tools to plagiarise, or reference any generative AI tools as a credible source • Communicate the value of academic integrity, measures to detect AI-assisted plagiarism and consequences of misconduct	

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Are students aware of the risks and limitations of using generative AI tools?	• Consider the weaknesses and threats in the SWOT analysis • For example, ChatGPT is unable to respond to prompts related to recent events, and may 'hallucinate' and fabricate misleading answers • Explain why generative AI tools should be used to assist but not replace formal learning • For example, students need to be knowledgeable of the subject matter in order to use AI tools intelligently (i.e. to ask the right questions and discern the quality of AI-generated answers) • Remind students that generative AI tools cannot be listed as a co-author in top academic journals	
Are students able to apply generative AI tools to their learning?	• Consider the strengths and opportunities in the SWOT analysis • Demonstrate how to benefit from generative AI tools and avoid misuse (e.g. developing and expounding your guidelines on the legitimate use of generative AI tools)	

Assessment suggestions

Questions	Suggestions	Yes/No
Is it possible to diversify assessment tasks and strategy?	• Combine different assessment tasks, such as multimedia content in e- portfolio, presentation, pre-recorded video and authentic assessment • Achieve a right balance between formative and summative assessments • Use essay questions as part of formative assessment • Consider group projects and peer assessment • Contemplate process-oriented, staged and/or programmatic approaches assessment	
Are the essay questions appropriate for students who may use generative AI tools?	• Design the essay questions using generative AI tools, such as trying a	

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	variety of prompts and examining the quality of AI-assisted answers • Design essay questions that encourage students to provide original answers and demonstrate their learning of the subject matter • Consider asking a series of systematically related questions that promote critical and deeper analysis of problems • Use reflective questions • Select topics that are interesting to students • Ask students to include detailed examples, discuss recent events, and draw on multiple module topics • Use the rubric approach in Assessment and Feedback Policy and include descriptors that emphasis on creativity, originality, critical thinking and self-reflection	
Are there measures to prevent plagiarism?	• Produce AI-generated 'model answers' for students • Pay attention to characteristics of AI-generated text • Update student declarations to remind students that AI-generated text is not permissible • Inform students that, if necessary, they will be asked to clarify their written answers in an oral report	

If you have any questions, please contact the Academic and Learning Enhancement team.