Teesside University Excellence Case Studies

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AI as a Research Companion: Enhancing Student Success in Dissertation Modules

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Teesside University

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Structuring your content

Designing your summative assessment

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>
> ***Kate Jones***

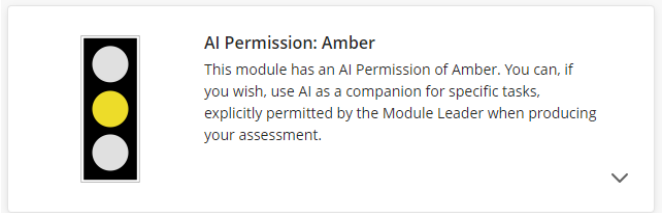
Introduction and Background

Kate Jones, a senior lecturer in the School of Social Sciences, Humanities & Law, has been experimenting with the integration of generative artificial intelligence (GenAI) tools to support students in their dissertation modules. This initiative aligns with Teesside University's progressive stance on AI, which advocates for its responsible use as a companion in academic endeavours. The primary objective of this initiative is to enhance the research process, making it more efficient and focused, thereby improving the overall student learning experience.

The context of this is situated within the third-year dissertation module, where students are required to undertake significant research projects. These projects often present challenges related to the formulation of research questions, identification of relevant theories, analysing data and overall management of the research process. Traditionally, these challenges have been addressed through manual methods, which can be time-consuming and sometimes overwhelming for students.

Approach

Following the recent release of an updated approach to AI usage in summative assessment, Teesside University has implemented a 'traffic light' system to guide students on the permitted usage of AI tools. This system categorises AI usage into three levels: green (fully permitted), amber (permitted but only with guidance on how and when by the module leasder), and red (not permitted).



The amber AI Permission selected by Kate to inform her students to what extent they can use AI within her module.

Kate introduced her students to this system, emphasising the importance of using AI as a supportive tool rather than a replacement for their own work. This distinction is crucial in maintaining academic integrity and ensuring that students remain actively engaged in their research.

The integration of AI tools was demonstrated through practical examples. For instance, students were shown how to use ChatGPT to refine their research questions and identify a shortlist of theorists and their associated theories. One notable example involved a student struggling to identify a suitable theorist for their dissertation. By using ChatGPT, the student was able to generate a list of potential theories, which they then researched further to determine their applicability to their work. This process not only saved time but also helped the student focus on the core aspects of their research.

Another example involved a student who needed assistance in rewording their research question to ensure clarity and focus. Again, ChatGPT was used to suggest alternative phrasings, which the student then refined based on their understanding of the topic. This iterative process helped the student develop a well-defined research question that was both focused and manageable within the scope of their dissertation.

Outcomes

The use of AI tools had a significant positive impact on the students' research processes. Key outcomes included enhanced clarity and focus on research questions, increased engagement and interest in the research process, and substantial time savings. These benefits allowed students to allocate more effort to critical analysis and reading around their topics, thereby deepening their

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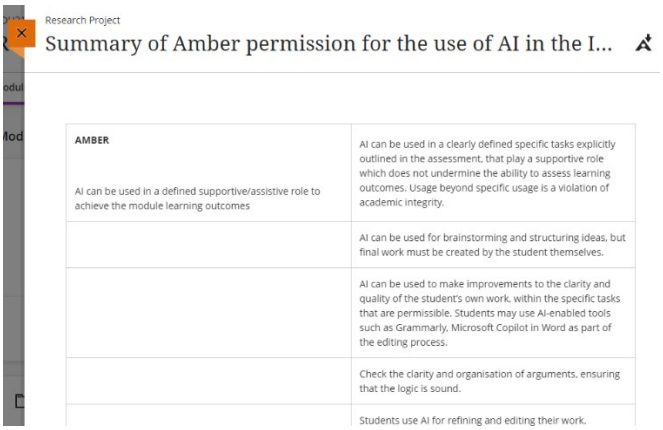
understanding and improving the quality of their work.

Ultimately, the introduction of AI tools sparked meaningful discussions among students about the ethical use of AI and its role in academic work. Students expressed concerns about maintaining the originality of their work while using AI tools, which led to deeper conversations about academic integrity and the importance of responsible AI usage. These discussions were instrumental in helping students understand that AI can and should be used to support their work, not replace it.


Research Project

Summary of Amber permission for the use of AI in the I...

AMBER AI can be used in a defined supportive/assistive role to achieve the module learning outcomes	AI can be used in a clearly defined specific tasks explicitly outlined in the assessment, that play a supportive role which does not undermine the ability to assess learning outcomes. Usage beyond specific usage is a violation of academic integrity.
	AI can be used for brainstorming and structuring ideas, but final work must be created by the student themselves.
	AI can be used to make improvements to the clarity and quality of the student's own work, within the specific tasks that are permissible. Students may use AI-enabled tools such as Grammarly, Microsoft Copilot in Word as part of the editing process.
	Check the clarity and organisation of arguments, ensuring that the logic is sound.
	Students use AI for refining and editing their work.

Kate's AI usage summary informing her students on how they could use AI within her module based on the 'amber' rating she had given it.

Future Plans

Looking ahead, Kate plans to continue integrating AI tools into her teaching, with a focus on expanding their use in other areas of the curriculum. Future steps include exploring AI's potential in assessment design and support in assessing formative work to reduce workload and improve efficiency. For instance, AI could be used to generate multiple-choice questions, which could then be imported into Blackboard which could then automatically mark them, thereby saving significant time for lecturers.

Additionally, Kate intends to investigate other AI tools that can support various aspects of teaching and learning. This includes collaborating with colleagues to share best practice and develop guidelines for the responsible use of AI in academia. By doing so, she aims to create a supportive environment where both staff and students can benefit from the advantages of AI while maintaining high standards of academic integrity.

Conclusion

The integration of AI tools in dissertation modules at Teesside University has proven to be a valuable addition to the learning process. By using AI as a companion, students have been able to enhance their research skills, save time, and engage more deeply with their topics. This initiative reflects Teesside University's commitment to innovative and responsible use of technology in education.

The positive outcomes observed in this case study highlight the potential of AI to transform the research process, making it more efficient and focused. As AI continue to evolve, its integration into our academic processes will become increasingly prevalent, offering new opportunities for enhancing teaching and learning. Thanks to initiatives like this, Teesside University will continue to position itself at the forefront of this new digital age, embracing AI responsibly and ethically.

Contact Information

For more information on using AI in summative assessments, please contact Digital Transformation (DX) in SLAR.