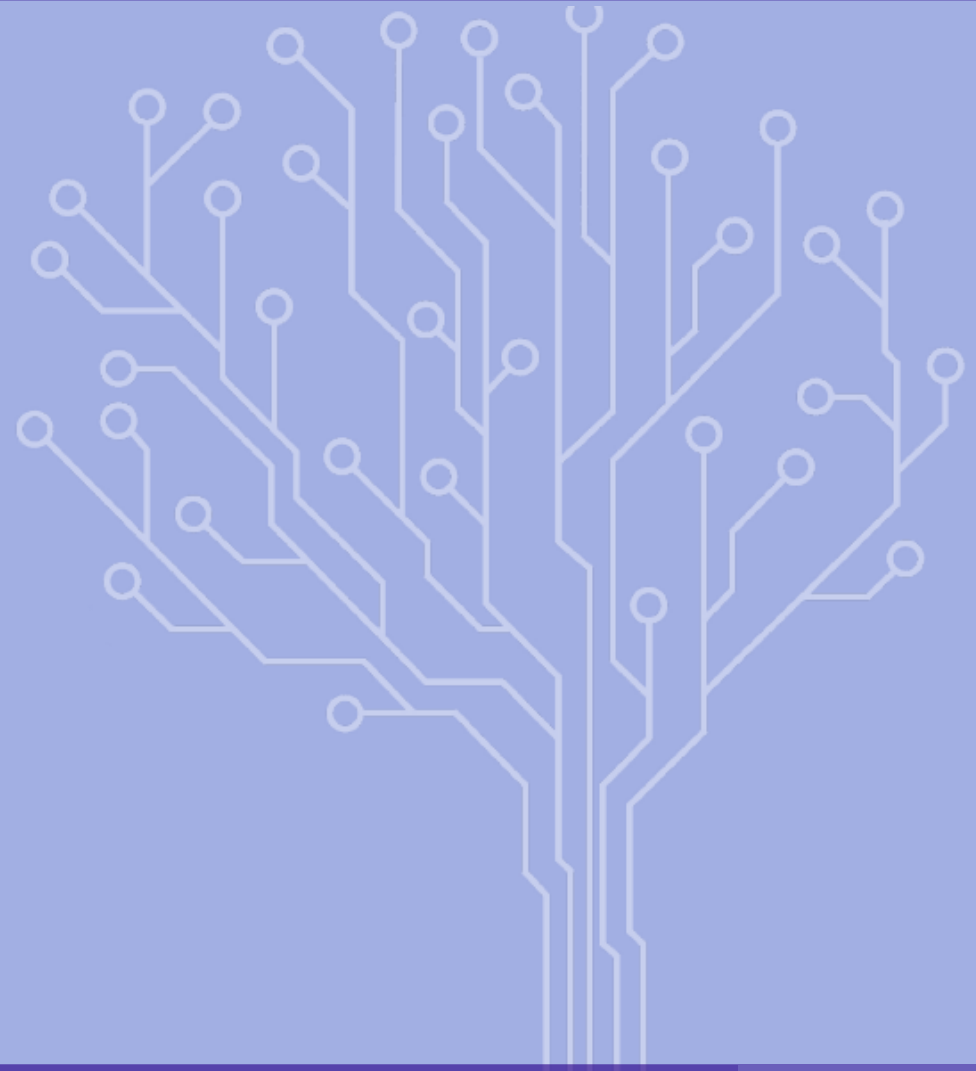


Assessment and Evaluation for Gender Equity in ODL Provision in a Time of Generative AI.



Tony Mays
Education Specialist: Open Schooling
Associate Editor: Journal of Learning for
Development
Botswana Open University, 8 September 2023



Overview

Assessment and
ODL

Assessment and
Girls

Assessment and
AI

Assessment &
Evaluation

Way forward?

Assessment and ODL 1

- *“If we wish to discover the truth about an educational system, we must look into its assessment procedures. What student qualities and achievements are actively valued and rewarded by the system? How are its purposes and intentions realised? To what extent are the hopes and ideals, aims and objectives professed by the system ever truly perceived, valued and striven for by those who make their way within it? The answers to such questions are to be found in what the system requires students to **do** in order to survive and prosper. The spirit and style of student assessment defines the **de facto** curriculum.” [Rowntree, 1987:1]*

Assessment and ODL 2

The overall assessment strategy should ideally do the following kinds of things:

- provide sufficient **formative feedback to help students to check their progress** against the intended learning outcomes and assessment criteria
- provide sufficient evidence to allow students and teachers to **diagnose potential problems and areas of strength**
- provide sufficient guidance and feedback to **maximise student chances of success**
- provide **reliable summative evidence** of student achievement so there can be no doubt that they have met the exit level outcomes and earned a qualification they can be proud of ...



Assessment and ODL 3

- ... provide support to student **time management** by staggering assignments and workloads so that they can be sure that they cover the complete programme adequately in the time they have available
- provide students with **motivation to succeed** by encouraging them to relate their studies to their own working/ potential working and/or learning environment and problems and through the provision of encouraging and realistic feedback
- provide a clear sense **of progression and development** by linking assignments and modules so each one builds on what has gone before (adapted from Raggatt in Lockwood, 1994:138; Morgan & O'Reilly, 1999:80).





Five key planning questions

Why assess?

- Deciding why assessment is to be carried out; what effects or outcomes it is expected to produce.

What to assess?

- Deciding, realising, or otherwise coming to an awareness of what one is looking for, or remarking upon, in the people one is assessing.

How to assess?

- Selecting, from among all the means at our disposal for learning about people, those we regard as being most truthful and fair for various sorts of values knowledge.

How to interpret?

- Making sense of the outcomes of whatever observations or measurements or impressions we gather through whatever means we employ; explaining, appreciating, and attaching meaning to the 'raw events' of assessment.

How to respond?

- Finding appropriate ways of expressing our response to whatever has been assessed and of communicating it to the person concerned (and other people). (Rowntree 1987)

Engagement: Authentic tasks

Biodiversity data collection activity

- Use detailed field notes on a sample of birds, dragonflies and woodlice. Students observe their area, noting what species they find.
- Complete field notes and upload to the U316 Biodiversity database.
- This creates a geographically referenced map of all the students' data, enabling students to see where there are species 'hot spots' and to work out what might be good strategies for nature reserves.
- Submit an assignment based on this activity, for credit.
- The OU data is submitted to the national biodiversity database and so adds to 'real' knowledge. (Thorpe, 2006)





Assessment and Girls 1

[Fisheries Scientist](#) by [USFWS Alaska](#) is licensed [PD 1.0](#)

[Army Scientist](#) by [U. S. Army DEVCOM](#) is licensed [CC BY-SA 2.0](#)



[Construction Worker](#) by [Seattle Municipal Archives](#) is licensed [CC BY 2.0](#)



[Flu Vaccine in Vietnam](#) by [CDC Global](#) is licensed [CC BY 2.0](#)

Assessment and Girls 2

Assessment and Girls 3



[Preparing for Covid-19 vaccinations](#) by [President of Ukraine](#) is licensed [CC PD 1.0](#)



[USAG Humphreys takes top honors for excellence in social media communications](#) by [USAG Humphreys](#) is licensed [CC BY 2.0](#)



[Village Meeting](#) by [Rod Waddington](#) is licensed [CC BY-SA 2.0](#)

Assessment and Girls 4

- [Saudi Arabia's first female astronaut launched into space on SpaceX rocket | Euronews](#)
- [Autumn Peltier: Meet the 'water protector' of Canada's First Nations | CNN](#)
- [Cara Bez Geldud](#) speaks to the power of educated mothers on their own children and the wider community.





Assessment and AI 1

- Write an essay of 1,500 words explaining the causes of the Second World War. Identify at least 10 key facts. (20 marks)
- Examine the attached PDFs of documents from the period leading up to the Second World War. Based on this evidence, construct an argument for how the war could have been avoided. (20 marks)
- Interview a second-world war veteran. Discuss the impact of the war on the veteran and their family. Write up your discussion in the form of an essay. (20 marks)

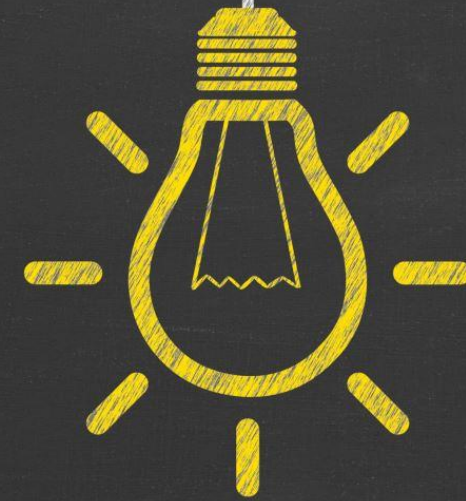


Assessment and AI 2

- We could try to ban it ...
- or we could ...
- Explore co-creation (Bozkurt & Sharma, 2023)
- Use AI to help develop personalised assessment instruments (OER Africa, 2023)
- Build assessment activities around current events (Ratten & Jones, 2023)
- Use AI to provide formative feedback (Baidoo-Anu & Owuso Ansah, 2023)
- Critique a response generated by AI from alternative perspectives (Cooper, 2023)
- Reinforce principles of academic integrity and require acknowledgement of how AI was used (Eke, 2023)
- “ ...focus on the process of learning over its outputs, higher-order thinking, and authentic applications.” (Smolansky, et al., 2023)

Assessment and AI 3

- Use **online quizzes with zero assessment marks** to confirm threshold concepts and unlock future content.
- Consider **flipped assessments** and the like, where the activity is based on critical thinking activities that reflect and analyse ChatGPT output.
- Consider assessments that **require creativity** and go **beyond writing**. Such an example is illustrated in Nikolic and Raad ([Citation2021](#)).
- Develop assessments where ChatGPT is used to undertake calculations, but the **solution comes from the creativity** of the student.
- Use ChatGPT as an education tool to teach introductory programming, and **moving earlier to more complex tasks** that go beyond easily developed solutions. Consider teaching how ChatGPT can be used to easily move from one programming language to the next.
- Make greater use of **interview-based assessment** where the teaching staff probe students' understanding. This limits the ability of students to memorise responses.
- Encourage greater use of **project-based and/or experimental/laboratory learning** experiences where solutions are unique and require experience to document and explain.
- For projects and for research, ChatGPT can be an invaluable tool. While difficult to provide students a solution, it is powerful in providing them with **editing support, direction, scaffolding and ideas** that will give them momentum to complete the required activities. We need to learn how to embrace it.

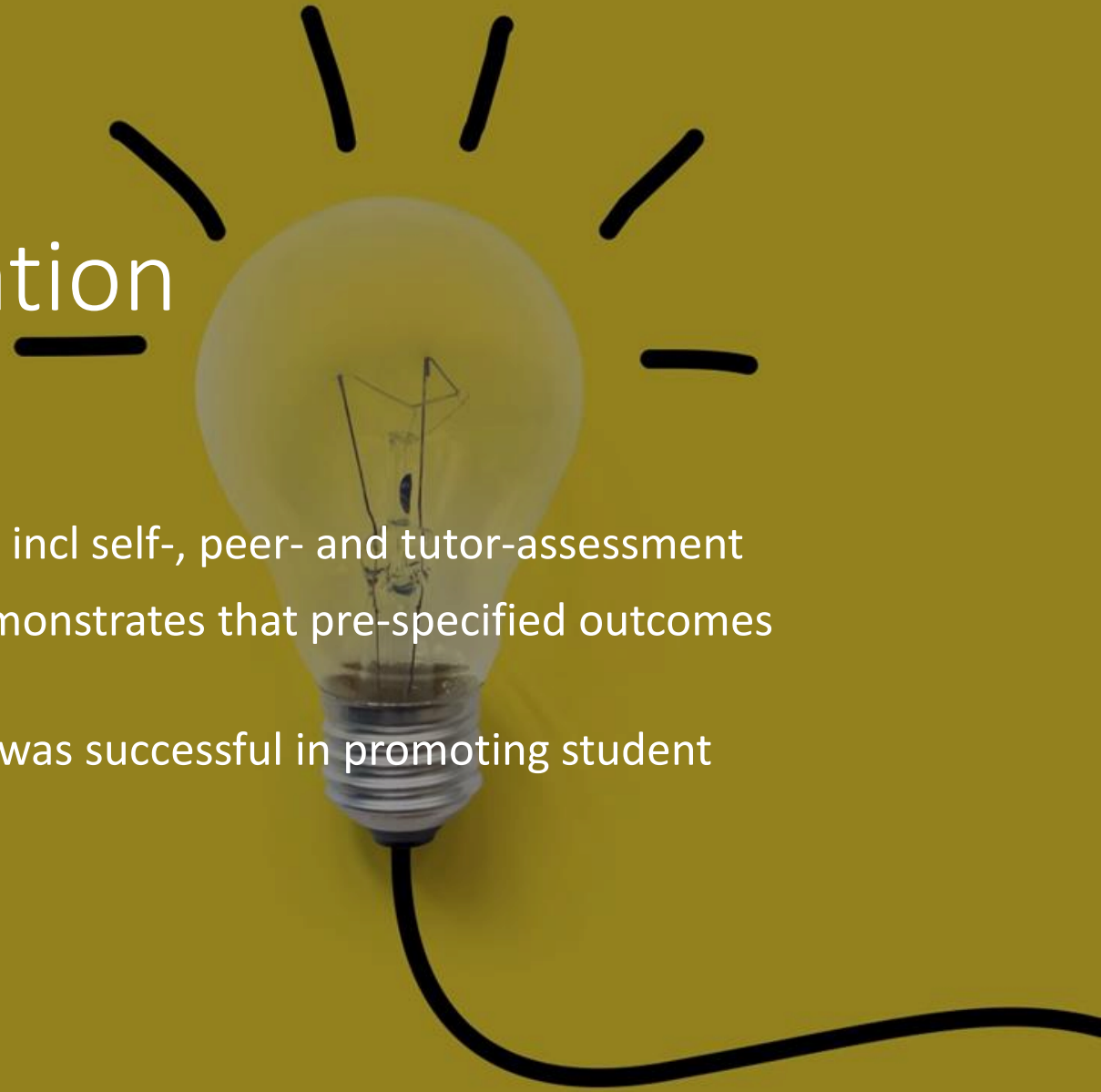




[Samoa pioneers AI-powered learner support](#)

Assessment and evaluation

- Assessment of/for/as learning in multiple forms incl self-, peer- and tutor-assessment
- Evaluation of whether assessment evidence demonstrates that pre-specified outcomes have been met
- Evaluation of whether the learning programme was successful in promoting student learning



Assessment, Evaluation and Girls' Education

- Does enrolment of girls match or exceed broader demographics? If not, intervene.
- Does retention of girls match or exceed broader demographics? If not, intervene.
- Does performance of girls match or exceed broader demographics? If not, intervene.
- Do pass rates of girls match or exceed broader demographics? If not, intervene.
- Does progression of girls match or exceed broader demographics? If not, intervene.
- Close the feedback loop using M&E findings for continuous improvement and use technology/AI to help with the process and reporting.



Let's ask Bing Chat

- How can generative AI support assessment and evaluation for girls?

Generative AI can provide an objective assessment of student work, reducing the risk of bias in grading. This can help eliminate disparities that may arise due to factors such as race, gender, and socioeconomic status. An objective assessment can also help educators provide fair evaluations and reduce the risk of grading errors¹.

There are also tools that can generate images, such as Midjourney, Stable Diffusion, and DALL-E². However, at the moment this resource is only focused on tools that generate text².

I hope this helps!

[1How to Use Generative AI in Assessment - Edtech Empire | Edtech Blog](#)

[2Teaching and Learning in an Era of Generative AI - UBC Centre for Teaching, Learning and Technology](#)

[3Designing assessments \(ubc.ca\)](#)

[4The Cambridge approach to generative AI and assessment | Cambridge University Press & Assessment](#)

And again ...

- How do we overcome the challenge of students getting their assignment essays written by generative AI and not acknowledging this support?

One way to overcome this challenge is to include a statement in the course syllabus and course assignments that clearly outlines what AI technology is allowed and what is not allowed¹.

Another way is to design assessments that mitigate or encourage the use of AI tools in your teaching². For example, scaffold or build assignments so that students are working towards a final product for submission. This effective approach benefits the students' writing and learning and also creates authentic conditions that are more likely to deter use of generative AI¹.

In addition, using generative AI tools to substantially complete an assignment or exam (e.g. by entering exam or assignment questions) is not permitted. Students should acknowledge the use of generative AI (other than incidental use) and default to disclosing such assistance when in doubt³.

I hope this helps!

- [1. Generative Artificial Intelligence in the Classroom - Centre for Teaching Support & Innovation \(utoronto.ca\)](#)
- [2. https://ctl.ubc.ca/resources/assessment-design-in-an-era-of-generative-ai/suggestions-for-assignment-and-assessment-design/](https://ctl.ubc.ca/resources/assessment-design-in-an-era-of-generative-ai/suggestions-for-assignment-and-assessment-design/)
- [3. AI Tools in Teaching and Learning | Teaching Commons \(stanford.edu\)](#)
- [4. Syllabus-Language-for-Gen-AI-April-2023.pdf \(utoronto.ca\)](#)



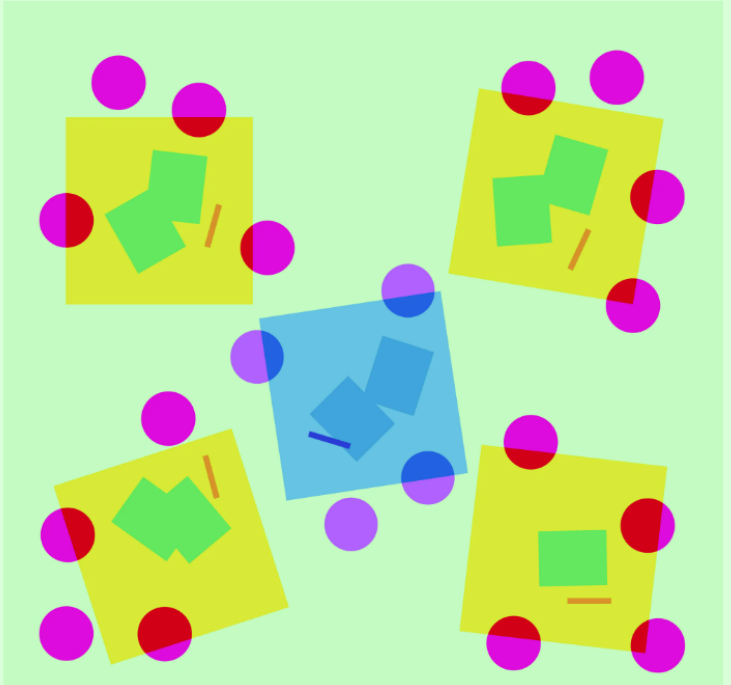
Teaching
with AI
(openai.com)

OpenAI Research ▾ API ▾ ChatGPT ▾ Safety Company ▾ Search Log in ↗ [Get started ↗](#)


Teaching with AI

We're releasing a guide for teachers using ChatGPT in their classroom—including suggested prompts, an explanation of how ChatGPT works and its limitations, the efficacy of AI detectors, and bias.

[Find additional resources in our new FAQ ↗](#)

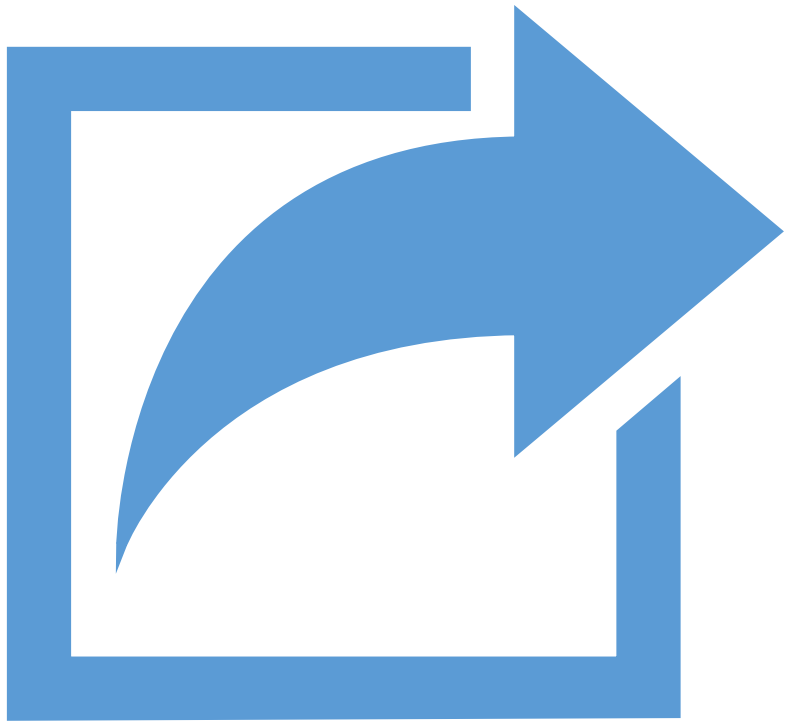


16°C Search [Taskbar icons: Edge, Word, PowerPoint, etc.]



AI Competency
Frameworks for
Students and
Teachers | UNESCO





Send me a proposal!

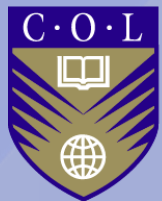
Way forward



References

- Baidoo-Anu, D., & Owusu Ansah, L. (2023). Education in the Era of Generative Artificial Intelligence (AI): Understanding the Potential Benefits of ChatGPT in Promoting Teaching and Learning (January 25, 2023). Available at SSRN: <https://ssrn.com/abstract=4337484> or <http://dx.doi.org/10.2139/ssrn.4337484>
- Bozkurt, A. & Sharma, R. C. (2023). Generative AI and Prompt Engineering: The Art of Whispering to Let the Genie Out of the Algorithmic World. *Asian Journal of Distance Education*, 18(2). https://www.researchgate.net/profile/Aras-Bozkurt/publication/372650445_Generative_AI_and_Prompt_Engineering_The_Art_of_Whispering_to_Let_the_Genie_Out_of_the_Algorithmic_World/links/64c1af66c41fb852dd9d8ace/Generative-AI-and-Prompt-Engineering-The-Art-of-Whispering-to-Let-the-Genie-Out-of-the-Algorithmic-World.pdf
- Cooper, G. (2023). Examining Science Education in ChatGPT: An Exploratory Study of Generative Artificial Intelligence. *J Sci Educ Technol* 32, 444–452 (2023). <https://doi.org/10.1007/s10956-023-10039-y>
- Eke, D. O. (2023). ChatGPT and the rise of generative AI: Threat to academic integrity? *Journal of Responsible Technology*, 13. <https://doi.org/10.1016/j.jrt.2023.100060>
- Nikolic, S., Daniel, S., Haque, R., Belkina, M., Hassan, G. M., & Grundy, S. (2023). ChatGPT versus engineering education assessment: a multidisciplinary and multi-institutional benchmarking and analysis of this generative artificial intelligence tool to investigate assessment integrity. *European Journal of Engineering Education*, 48 (4), 559-614. <https://doi.org/10.1080/03043797.2023.2213169>
- Lockwood, F. (1992). *Activities in Self-Instructional Texts*. London: Kogan Page.
- Morgan, C., & O'Reilly, M. (1999). *Assessing open and distance learners*. London: Kogan Page.
- OER Africa. (2023, July 28), Three Ways Artificial Intelligence could change how we use Open Educational Resources (Blog). <https://www.oerafrica.org/content/three-ways-artificial-intelligence-could-change-how-we-use-open-educational-resources>
- Ratten, V., & Jones, P. (2023). Generative artificial intelligence (ChatGPT): Implications for management educators. *The International Journal of Management Education*, 21 (3). <https://doi.org/10.1016/j.ijme.2023.100857>
- Rowntree, D. (1987). *Assessing Students: How shall we know them? Second Edition*. London: Kogan page. pp 1, 136.
- Smolansky, A., Cram, A., Radulescu, C., Zeivots, S., Huber, E., & Kizilcec, R. F. (2023). Educator and Student Perspectives on the Impact of Generative AI on Assessments in Higher Education. [L@S '23: Proceedings of the Tenth ACM Conference on Learning @ Scale](https://doi.org/10.1145/3573051.3596191) July 2023 Pages 378–382, <https://doi.org/10.1145/3573051.3596191>
- Thorpe, M. 2006. *Using ICT for curriculum design, development and delivery: design for active and interactive networked learning*. Nadeosa, Pretoria, 2006.

Thank you



COMMONWEALTH *of* LEARNING
www.col.org

The contents of this presentation, with the exception of logos and graphics which are the property of the respective owners, is made available under Attribution-ShareAlike 4.0 International (CC BY-SA 4.0).