Intelligent Assessment in the Age of Artificial Intelligence Workshop
14th May 2024, University of Leeds

Organisers
Dr Matt Bawn and Dr Ruth Norman

Attendees
Around 40-50 participants attended the hybrid workshop from institutes across the UK. The event included talks from academics from the University of Leeds, Cardiff University, University of Glasgow, University of Warwick, University of Sheffield, Kingston University, University of East Anglia and the University of Bradford.

Sponsors
This was a HUBS funded Event.

Aims
There were two overarching aims of this workshop:
1. For attendees to hear presentations from experts outlining the challenges and opportunities around Artificial Intelligence (AI) in higher education.
2. To come together to discuss and design more intelligent assessments for the biological sciences incorporating AI.

Summary
The workshop began with an invited presentation from Dr Nigel Francis from Cardiff University who gave examples of how generative AI can be used for assessment and feedback, such as image analysis, literature review, and essay outline. Nigel also discussed the challenges and implications of AI for academic integrity, equity, and competency. He shared a guide and a website for resources and best practices.

Ourania Varsou from the University of Glasgow commented on workshops participants responses to a survey that explored the fears and hopes of the participants regarding AI and assessment. She also gave some historical and contemporary context for AI and its applications. She emphasized the importance of teaching students how to use AI ethically and appropriately, and the need for institutional and sector-wide strategies.

The first workshop of the day explored participants views on current good practices in assessment asking them to identify what factors contribute towards this and any challenges they may face.

This was followed by Chris Hassall from the University of Leeds sharing his experiences of using Generative AI (GenAI) to scaffold student learning. Chris presented three case studies on how AI can be used in teaching. Including rapid prototyping of learning resources, using ChatGPT to create a scaffold for a workshop on strategic litigation and conservation biology, and to generate active learning activities. Andre Pires da Silva from the University of Warwick talked about a module in which students are asked to generate a graphic abstract in their assessment. Andre shared his experience and showed examples of graphical abstracts generated by generative AI. Liz Alvey from the University of Sheffield discussed leveraging large language models for learning in interdisciplinary Biosciences education. Liz discussed the use of Gen AI to support student learning, teaching students how to use Gen AI effectively,
and using Gen AI to support teachers and improve their teaching. In the final talk of the morning Pedro Barra from Kingston University shared his experiences of using generative AI in teaching and learning. He suggested using the tool to create summaries, generate errors, and quiz students. Pedro also emphasized that the output from generative AI is often riddled with errors and hallucinations.

The afternoon began with an invited talk from Audrey Heppleston from the University of East Anglia summarising the findings of the recent HUBS funded event Authentic Assessment in the Biosciences: How to Measure what Matters. Amongst the conclusions was the need to focus on assessments that capture what students can do because of learning. Audrey emphasized the importance of demonstrating employability skills and involving potential employers in designing learning activities and assessments. Audrey also mentioned the need to support data literacy skills. Denise Hough from the University of Glasgow introduced a framework that provided general guidance on good academic practice for all course components. Denise suggested ways in which generative AI can support learning and ways to avoid over-reliance on generative AI.

In the final workshop participants worked in groups to identify ways in which GenAI could be incorporated into existing assessments to enhance student learning. Groups were asked to consider what they would need in terms of training and resources to deliver these novel assessments.

Hannah Campbell from the University of Leeds talked about using generative AI to improve science communication and writing skills for students. Hannah described a workflow that encourages understanding and critical appraisal of content, without producing inaccuracies, bias, or hallucinated facts. Matt Hardy from the University of Bradford shared his approach for using GenAI in written content. Matt discussed a workflow that demonstrates how to produce good written text using a generative AI in a manner that encourages student understanding of the information they are incorporating. Juanvi Canet, also from the University of Bradford reflected on the use of AI by final year biomedical sciences students. Juanvi talked about the different assessments that students have encountered and these influence students AI misuse. Juanvi revealed that breaking down long essays and allowing students to submit drafts reduces these AI issues.

Outcomes
The talks and workshop activities generated a great degree of discussion and enthusiasm. By the end of the event significant areas for collaboration in designing more intelligent AI informed assessments were identified.

The initial plan to continue the work of the event is to describe some of the presented assessments, with the consent of the presenters, in a standard operating procedure (SOP) format so they can be more readily shared and used by the larger community. We will also work with the participants to do this for the novel assessments initially designed during the workshops.