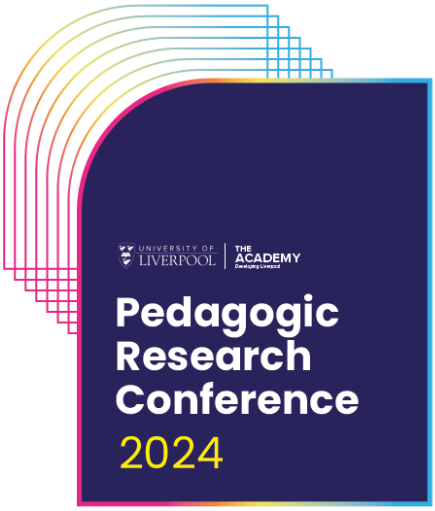

Technology and AI in Learning and Teaching.

Following on from an explosion in the use of digital tools for teaching in response to the pandemic, Generative AI and machine learning has recently received a lot of attention across the HE sector both in terms of risks to academic integrity and as an exciting new tool for enhancing teaching and learning. Technology and digital tools are now at the forefront of learning and teaching development and an exciting area to explore in terms of pedagogic research.

Programme:

9:00 -9:20	Registration, coffee & pastries		
9:20 – 9:30	Welcome address by James Howard, director of The Academy Room 113		
9:30 – 10:00	Spotlight invited guest - Lissy Wang from XJTLU Room 113		
10:00-11:15	Keynote – Sue Beckingham & Peter Hartley Room 113 *Reshaping Higher Education Learning, Teaching and Assessment through Generative Artificial Intelligence: What do we need to know, do, and be concerned about?*		
11:15 – 11:45	Coffee break and Emerging Ideas presentations Room 110		
11:45 – 13:00	**Full papers 1 room 113** Mia Tedjosaputro & Matthew Wallwork (XJTLU) Xue Yao, Ying Shao & Rong Luo (XJTLU) Konstantin Luzyanin (UoL) Yingchun Li (XJTLU)	**Full papers 2 room 115** Yao Wu & Xuanying Shen (XJTLU) Xiaoying Yuan, Rui Xu, Fan Yang, Guhuai Jiang (XJTLU) Laura Corner (UoL) Haixia Wang & Henghua Su	**MAAP presentations room 105** Briony Alderson Laura Blundell Robert Campbell Stephen Deboo Niall Kenneth
13:00 – 13:30	Lunch Room 110		
13:30 – 14:30	**Full papers 3 room 113** Jingfei Zhang (XJTLU) Heather Johnston & Bryony Parsons (UoL) Athanasia Daskalopoulou (UoL) Carl Larsen, Chris Mitchell & Shirley Yearwood-Jackman (UoL)	**Emerging Ideas room 115** Jinyang Song (XJTLU) Pengfei Fan (XJTLU) Denis Duret (UoL) Sanaa Aljamani (UoL) Yang Zhang (XJTLU) Kasey Clark (UoL) Vladimir Gusev (UoL) Shuhan Li (XJTLU) Olga Gkountouna & Ron Mahabir (UoL) Chao Huang (UoL) Jennifer Davies, Matthew Tickle, Laura Menzies, Fotios Misopolous (UoL) David Marti-Pete (UoL)	**MAAP presentations room 105** Rob Lindsey David Roberts Sam Saunders Simon Tavernor
14:30 – 14:40	Coffee break Room 110		
14:40 – 15:00	Claire Ellison, Sam Saunders, Ceri Coulby (Centre for Innovation in Education, UoL) Room 113 *How has the University of Liverpool's approach to GenAI in terms of academic integrity affected assessment strategies used within the institution*		
15:00 – 16:00	Creative writing workshop with David Higgins (UoL) & Trudie Murray (MTU) Room 115 *Writers Corner –Curating the humanity within the teaching self – pottering with playfulness (living and telling OUR stories)*		
16:00 – 16:30	Networking		

Spotlight talk: Yu Wang (XJTLU)

In this keynote presentation, I will provide an in-depth case study on the evolution and sustainable growth of teacher professional development at a transnational university in China, predominantly focusing on Xi'an Jiaotong-Liverpool University (XJTLU). The main emphasis will be on the development of the Scholarship of Teaching and Learning (SoTL) and pedagogical research. It will chart the journey beginning from the alterations made in the Postgraduate Certificate in Teaching and Learning (PGCert), culminating to the recent initiation of the Pedagogical Publishing Support Program over the past three years. This examination will offer holistic insights into the driving forces behind these changes, the opportunities harnessed, past and prospective challenges, and the consequent actions taken. Central to this discourse is the concept of 'co-creation', encapsulating the joint motivation of educational developers and staff from divergent roles and expectations to establish a people-centered development pathway. This presentation will shed light on how commitment to shared objectives can foster sustainable educational development in a transnational context.

Yu Wang, also known as Lissy, is the Deputy Director, Educational Developer, and Assistant Professor of Practice at the Educational Development Unit (EDU) of the Academy of Future Education at Xi'an Jiaotong-Liverpool University (XJTLU). Lissy plays a critical role in shaping the pedagogical development of the institution, as she holds the responsibility of being the module leader for the Postgraduate Certificate in Teaching and Supporting Learning in Higher Education (PGCert) 402 Pedagogic Research to Enhance Professional Practice. Lissy spearheads several initiatives, including the Research-led Teaching and Learning Story Collection, EDU Podcast, and Project-based Learning and Supervisor Communities of Practice. She is particularly interested in topics such as students as partners, project-based learning, the scholarship of teaching and learning, and student engagement.

Keynote: Sue Beckingham & Peter Hartley

Reshaping Higher Education Learning, Teaching and Assessment through Generative Artificial Intelligence: What do we need to know, do, and be concerned about?

Sue Beckingham is an Associate Professor (Learning and Teaching), a National Teaching Fellow, Principal Lecturer in Digital Analytics and Technologies, and a Learning and Teaching Portfolio Lead at Sheffield Hallam University. She is also a Certified Management and Business Educator, a Senior Fellow of the Higher Education Academy, a Fellow of the Staff and Educational Development Association, and a Visiting Fellow at Edge Hill University. Her research interests include social media for learning and digital identity, groupwork, and the use of technology to enhance learning and teaching; and has published and presented this work nationally and internationally as an invited keynote speaker. She is a co-founder of the international #LTHEchat 'Learning and Teaching in Higher Education Twitter Chat' and the Social Media for Learning in HE Conference @SocMedHE and a member of the team organising the award winning National Teaching Repository.

Professor Peter Hartley is freelance Higher Education Consultant, and Visiting Professor at Edge Hill University, following previous roles as Professor of Education Development and Head of the University's Educational Development unit at University of Bradford, and Professor of Communication at Sheffield Hallam University (where he moved into educational development after a successful period of teaching and publishing in Communication Studies). As a National Teaching Fellow since 2000, he has promoted new technology in education, including the publication of award-winning software. He led influential development projects for HEA and Jisc and was involved in other national initiatives (e.g. CETLs) covering themes including institutional online and assessment strategies. Recent/ongoing consultancy includes work on coaching/CPD initiatives, institutional strategies for learning spaces, mentoring candidates for NTF and CATE, and assessment (usually involving concepts and approaches from the PASS project: https://www.bradford.ac.uk/pass/). Current interests also include concept mapping and visual thinking. He is a member of the team organising the award-winning National Teaching Repository and the team developing the SEDA/Jisc Student Partnership Impact Award.

Since November 2022. Peter has collaborated with Sue Beckingham to develop resources on ChatGPT and similar Generative AI applications. This has included conference keynote sessions, online workshops and a series of webinars for SEDA.

Ellison, Saunders & Couldby (CIE)

How has the University of Liverpool's approach to GenAI in terms of academic integrity affected assessment strategies used within the institution?

This project explores staff experience of the integration of Generative Artificial Intelligence (GenAI) into student work in line with the updated academic integrity policy which came into force at the start of the 2023-24 academic year. GenAI came to prominence part way through the 2022-23 academic year, and from informal contacts between the Centre of Innovation in Education (CIE) and academic staff, as well as formal requests for help on the subject, we know that staff have been concerned with how students will approach their assessments this year, and whether cheating through GenAI use will be rife. With this in mind, several initiatives have been put in place including (i) an adaptation of the academic integrity policy to explicitly discuss the use of GenAI, (ii) guidance on the acceptable/unacceptable use of GenAI, (iii) the introduction of the AI Detector through Turnitin, and (iv) numerous workshops delivered by CIE on how GenAI can be used to help student learning and strategies for staff to limit academic misconduct on their assignments. Through this project we investigated if some of the fears staff have faced over past 12 months have come to fruition, or if the initiatives we put in place have helped foster a positive use of GenAI in the student population. To achieve this we questioned staff on their experience and opinions under four themes: (i) how they have introduced or discussed GenAI in the courses they teach, (ii) how they have observed students approaching their assessment tasks in terms of acceptable or unacceptable GenAI use, (iii) how staff have interpreted and implemented the GenAI aspects of the academic integrity policy and associated guidance, and (iv) staff attitudes toward the use of GenAI in an academic context. This conference presentation will discuss the results of this data gathering exercise and suggest what future adaptations might be required before GenAI technologies are successfully integrated into our working practices.

Workshop: Trudie Murray (MTU) and David Higgins (UoL)

Writer's Corner—Curating the humanity within the teaching self—pottering with playfulness (living and telling OUR stories)

Workshop Summary: In this session we seek to explore the power of speaking and writing (listening and acting) through "playfulness" in how we account for your experiences. We position the session as a space for conversation where diverse, and sometimes hidden voices, can find existing or new expressions. We view the practice of being a teacher as enacted when teachers' tell and live out their experiences.

Workshop Methodology: The design of this workshop follows the principles of participatory action and art-based research, combining conversational narratives and visual inquiry (Czarniawska, 1998; Riessman, 2008). The session will be structured in a manner which draws upon a research-based theatre tradition, (Beck et al., 2011; Mienczakowski and Morgan, 2001) which implies artful inquiry, scripting and performance (action) in research. The session will serve as an autobiographic platform for participants to "tell / share their story" drawing upon narrative and visual methods as a means of attending to our voices, through playfulness. We draw inspiration from the Vygotskian ideas of tool and result methodology and research-based theatre tradition, which shares a commonality with more recent modalities of inquiries where emphasis is placed on the co-production of learning and practice. Our primary concern is not just attending to what the method produces but equally how the method enables learning in how we express ourselves and write about ourselves.

Workshop Style: We aim to advance our understanding of what it means to speak and write about our teaching experiences, through the concept of playfulness. We position playfulness as an action rather than a feeling, by fostering our own imagination for speaking/writing both in practice and as a practice. This enables us to contemplate the multifaceted nature of our experiences and how we project those experiences onto others, by giving voice to the unspoken, unleashing the potential of writing and speaking by disrupting the all-consuming grand narrative of what is considered appropriate scholarship of writing. In the context of this session playfulness offers us a language to speak about "self" as a human practitioner, offering us an opportunity to talk about our courage and vulnerabilities as educators in the university sector. We seek to develop a session where speaking and writing helps us to learn more about ourselves and our experiences as writers and scholars.

Expected outcomes: Participants will benefit from:

- Space to reflect on, and re-engage with one's own teaching practice
- Critical and reflexive discussion on teaching and professional development
- Networking with other scholars
- 'Planning for action' – suggested steps forward
- To grow collective learning and capability in EE

Full papers 1

11:45—13:00 room 113

Mia Tedjosaputro & Matthew Wallwork (XJTLU) : An Investigation into the Utilisation of Image-based Generative AI According to Experiential Learning Preferences in Architecture Studio Pedagogy

This paper aims to explore the use of image-based Generative AI (GAII in architecture studio pedagogy. This type of pedagogy is a specific design project-based learning and teaching experience, mimics the master-to-apprentice approach. This approach originated from two movements, the Ecole des Beaux-Arts and Bauhaus in early 1920s. The studio pedagogy remained the same through the development of technological aids, including the current use of GAI. GAI provides fast iterations of image production which is a powerful capability for ideation stage. This presentation serves as a point of departure of an argument that the use of GAI differs depending on learners' preferences and studio pedagogy has to evolve to ensure learners are fully scaffolded. We analysed the results of self-assessed Kolb's Experiential Learning Profile results with individual learners practice of GAI in 13 weeks of studio of a cohort of twelve second year master students. The research question the authors seek to answer is "What are the differences in GAI utilisation during design ideation processes among different learner preferences?". Expected outcomes include an early investigation of the role of GAI in architectural design process which will be useful to provide suggestions about how GAI should be taught in studio.

Xue Yao, Ying Shao & Rong Luo (XJTLU) : Exploring the Effectiveness of Using an H5P Pathway to Enhance College Students' Academic Style in Writing

This research project aims to investigate the effectiveness of employing an H5P pathway as a technology-enhanced learning method to enhance college students' academic style in writing. The study focuses on analyzing the applicability and functionality of H5P, a web-based content creation tool, in improving students' writing skills within an academic context. The research methodology adopts a criterion-referenced approach by utilizing analytic rating scales, enabling the measurement of students' writing performance by independent raters. The assessment criteria encompass various dimensions of academic writing, including coherence, clarity, language usage. Data collection will involve pre- and post-intervention writing samples from participants. These samples will be assessed by independent raters using the analytic rating scales established for this study. Quantitative analysis techniques, such as descriptive statistics and inferential analysis, will be employed to examine the differences in writing performance between pre- and post test results. The research project aims to contribute to the field of educational technology by providing insights into the potential benefits and limitations of using H5P as a technology-enhanced learning tool to improve college students' academic writing skills. The findings will shed light on the effectiveness of integrating interactive content creation platforms into writing instruction, ultimately informing instructional practices and curriculum development.

Konstantin Luzyanin (UoL): Electronic reporting in Chemistry lab: back to the future?

Traditional lab performance evaluation is outdated and needs urgent adjustments to address subjectivity in grading, inconsistent marking, and lack of student engagement. These problems are often driven by outdated reporting practices that do not meet the expectations of academic and industrial environments. Technological development and the introduction of AI tools can provide a solution to these problems, enabling us to achieve true Digital Fluency for Global Citizens.

In pursuit of our research project on redesigning chemistry education assessment to make it more inclusive through promoting diversity (RSC Inclusion and Diversity Fund Application 174010827), we redeveloped the assessment approach for several chemistry modules and introduced critical reflection-based lab reports supported by innovative Electronic Laboratory Notebook (ELN). This allowed us to embed modern technical tools into chemistry teaching, meeting the expectations of key stakeholders, including students, staff, and future employers.

This report discusses the results of implementing these modern approaches in teaching and assessment, supported by initial student feedback.

Yingchun Li (XJTLU): Producing the Best Blend: An Investigation on the Pros and Cons of Blended Learning

The outbreak of the pandemic has compelled the implementation of online learning in higher education institutions around the globe. After the lockdown policy has been lifted in many countries and face-to-face teaching and learning activities have resumed, it is noticeable that blended learning has come into play as a new learning mode which supposedly offer the best from both worlds. However, doubt has been cast as for whether blended learning can be a viable option in the post-pandemic era for improved education quality.

In this study, the pros and cons of blended learning are investigated with the aim of seeking the optimum configuration of blended learning as a new learning mode that may offer learners an enhanced learning experience. An innovative module of project-based learning (PBL) is examined as the case in this investigation, for the reason that students complete this module through both online asynchronous sessions and live onsite consultations. Surveys and semi-structured interviews are employed to collect data, along with the collection of documents and students' academic performance records. Statistical analysis of quantitative data and thematic analysis of qualitative data will be made towards a holistic analysis of blended learning and its effect on learning process and results.

Full papers 2

11:45—13:00 room 110

Yao Wu & Xuanying Shen (XJTLU): Analysis of Tonal Recognition and Fluency Assessment in Automated Rating for Non-Native Mandarin Speakers

Learning Mandarin as a second language can be challenging due to its tonal nature, making it difficult for learners to perfect their pronunciation. With the development of machine learning, automated pronunciation rating systems have emerged to provide feedback to assist human raters. These systems often offer two types of feedback: corrective feedback on tonal accuracy and holistic feedback in the form of marks. Research into the effectiveness of such educational speech rating products for Mandarin second language learners would be helpful, particularly in terms of prosody and corresponding marking criteria for tone parameters.

The objective of this project is to investigate the recognition of tones and overall fluency assessment in reading-aloud exercises. Automated and human rating results for both tonal accuracy, fluency, and overall score were then calculated and compared. The findings show that the automated system flagged over 98% of syllable errors detected by human raters but also reported 25% of additional "errors" that were not flagged. Furthermore, our study indicates that the automated evaluation model provided an average overall pronunciation score of 82, while the average score from human raters was 62 with a higher standard deviation. In contrast, the automated system was more lenient about deducting fluency points. To improve machine learning, more detailed feedback on how accuracy and fluency are integrated into the marking criteria would be beneficial.

Xiaoying Yuan, Rui Xu, Fan Yang, Guhuai Jiang (XJTLU): Develop and explore the effectiveness of an E-tandem program with VR in foreign language learning at XJTLU

Travel constraints during the pandemic have necessitated the delivery of Chinese language modules at XJTLU in an online format, limiting opportunities for international students to engage with native speakers and immerse themselves in Chinese culture. To address this issue, we have envisioned a proactive solution - pairing international students with their Chinese counterparts and tasking them with collaborative activities within a Virtual Reality (VR) environment, specifically Mozilla Hub. The statistics show that international students are very interested in practicing Chinese with native speakers and are willing to learn more about Chinese culture.

Inspired by the paper ‘Designing and Supporting Virtual Exchange: The Case of Chinese–English e-Tandem’ (Tim Lewis & Kan Qian, 2021), this E-tandem programme aims to provide international students at XJTLU with an enriched avenue to practice Chinese and gain profound insights into Chinese culture through meaningful interactions with their language partners. VR technology is incorporated to create new immersive learning experiences that transcend the confines of traditional online education. Positive feedback on VR-facilitated interaction, performance, and engagement was received from participants. Meanwhile, VR dizziness and other technology-related issues were reported. We hope this E-Tandem programme could be applied in various language teaching domains.

Laura Corner (UoL): Tackling Threshold Concepts in Technology: Developing practical skills in beginners' programming courses

This paper details ongoing work in a beginners' programming course in the School of Engineering, from an initial lecture course with no practical experience to a fully lab based course. In particular, the use of 'live scripts' in MATLAB as teaching technology for the last academic year is reported. These live scripts allow short lecture videos, links to teaching content in Canvas and coding exercises to be integrated into a single MATLAB students can access and work through in lab classes. These classes are supported by teaching assistants and staff, replacing lecture content. The take-up of practical skills and completion of coding assessments has increased since the introduction of the live scripts and qualitative student feedback demonstrates improved confidence in writing programs. Further work will support students' work tackling threshold concepts in coding that have been identified by use of enhanced learning analytics provided through the MATLAB Grader technology.

Haixia Wang & Henghua Su (XJTLU): Steering AI to Empower Task Design for TCSOL (Teaching Chinese to Speakers of Other Languages) Classroom

The 2023 EDUCAUSE Horizon Report identifies two key trends in future education: AI-Enabled Applications for Predictive, Personal Learning and Generative AI. The World Digital Education Conference (2023, Beijing) discussed the concept of digital empowerment in education. Various AI models such as Claude, Bard, Xinghuo Model, Bing AI, and Baidu's "Wenxin Yiyu" spark discussions in multiple sectors, particularly in education. XJTLU ChatGPT platform – XIPU AI (君谋) is built on the OpenAI model. With its GPT array of innovative features, users can engage with an AI assistant in an authentic and interactive manner.

Research on AI in Chinese education primarily focuses on the opportunities and challenges AI presents, with less emphasis on classroom activity design and learners' experiences. In the CLT202 course at XJTLU, AI has been integrated into task design, and AI-assisted teaching has been used to create a multi-modal learning environment, yielding positive outcomes. This article explores how AI can be applied in teaching through specific cases. It discusses the impact of AI on empowering teaching content, promoting differentiated learning , and enhancing critical thinking. The article also includes students' perspectives on AI's role in learning, providing insights for further incorporation of AI in educational practices.

Full papers 3

13:30—14:30 room 113

Jingfei Zhang (XJTLU): The use of AI-generated vocabulary games and technological tools to stimulate students' vocabulary learning motivation and retention.

Vocabulary acquisition is a fundamental component of language learning, but encouraging students to engage with new words while also helping them to memorize them is extremely difficult, especially during the pandemic period when asynchronous teaching was the prominent method for vocabulary learning. Research has explored that using the combination of AI-generated vocabulary games and some technical tools such as Quizlet and WordWall may help solve the potential problems. This action research aims to explore the effectiveness of using AI-generated vocabulary games and technical platforms to enhance motivation and retention. In this research, Year 1 undergraduates were involved over the second semester, and they were asked to complete a pre- and post-test, as well as pre- and post- questionnaire. The results showed that AI-generated vocabulary games and these technological tools can successfully facilitate vocabulary learning since they cannot only engage with learners through online platforms, but also provide opportunities for students to use the vocabulary in meaningful contexts. This research offers pedagogical implications for both educators and curriculum designers to use technology to teach vocabulary and involve AI-generated vocabulary games in their language teaching. In addition, this action research also provides some suggestions for future research on this topic.

Heather Johnston & Bryony Parsons (UoL): Student perspectives on Generative Artificial Intelligence (GAI) tools.

With the emergence and prominence of new generative artificial intelligence (GAI) technologies, the KnowHow academic skills team, based in Libraries, Museums & Galleries, wanted to take a student-centred approach in our response. Our research aimed to understand student perspectives on GAI, and how they thought these technologies should be utilised in academic work. Through a survey curated by our KnowHow student team and completed by 2555 students across the university, we discovered that 93% of respondents had heard of these technologies, whilst over half had considered using them for academic purposes. This presentation will explore the responses in more depth, and how the results from the survey have informed our online tutorial around ‘Maximising the use and avoiding pitfalls of GAI in your studies’, as well as the University Academic Integrity policy, and our own information and digital skills teaching within the KnowHow programme.

Athanasia Daskalopoulou (UoL): The Impact of Bias in Student Evaluations: An Intersectional Analysis of Academics' Experiences

This study aims to offer an understanding of the impact of bias in student evaluations of teaching in management education. Despite the widespread acceptance of student evaluations, an emerging stream of research has begun to highlight the biases and prejudices that underpin much of data collection when it comes to student evaluation surveys both in terms of who completes the evaluation and also in terms of who is being evaluated. While most studies provide analyses of students' comments and illustrate the abuse that is directed at (marginalised) academics, very little research has focused on the impact of this process on academics. This study offers an overview of academics' experiences with student evaluations by drawing on an intersectional analysis of 17 interviews with a diverse group of academics employed in the U.K. Higher Education context. The findings illustrate the detrimental impact of student evaluations on academics' mental health and career progression within the Academy. This study also shows how institutional pressures to keep students happy impact academics' wellbeing and teaching approaches.

Carl Larsen, Chris Mitchell & Shirley Yearwood-Jackman (UoL): Unearthing Geographical Bias in Scientific Authorship and Funding using R Studio

The scientific community plays a pivotal role in shaping knowledge and innovation. However, an inherent bias exists within scientific authorship and funding, where certain geographic regions are disproportionately underrepresented or overlooked. This geographical bias impacts research dissemination, resource allocation, and the diversity of perspectives represented in academia.

Our research leverages an extensive dataset encompassing publications and research funding across diverse fields in life sciences. Using naïve searches in online databases of scientific publications, we use R to extract data on authorship and funding allocation and then generate maps to display the geographical distribution.

The analysis reveals several critical findings: firstly, an uneven distribution of scientific authorship, where a small number of high-income countries dominate the academic landscape, resulting in limited representation from lower-income regions. Secondly, funding disparities persist, as research grants are disproportionately allocated to institutions and researchers in economically privileged areas.

Educators, researchers, and students can use the app to assess bias in their own fields, and librarians can help academics and students to decolonise their reading lists. By recognising and rectifying the imbalance in authorship and funding, the scientific community can harness a broader spectrum of perspectives and ultimately advance more inclusive, innovative, and impactful research outcomes.

Emerging Ideas

13:30—14:30 room 110

All Emerging Ideas presentations are available asynchronously through the Teams space. Do take a look at the videos or posters ahead of this session. During this session, presenters will be available to discuss their ideas and respond to any questions or comments you may have.

Jinyang Song (XJTLU): Exploring the Impact of Integrating the XIPU AI Platform on Year 2 EAP Course: A Case Study at XJTLU.

This research proposal aims to investigate the potential benefits of integrating the XIPU AI platform into the Year 2 English for Academic Purposes (EAP) curriculum for engineering students with diverse backgrounds.

Rather than utilizing XIPU AI for content generation, the platform will be leveraged for its advanced natural language processing capabilities to provide real-time feedback and guidance on grammar, vocabulary, and coherence. The intention is to develop and refine students' language skills within the module's guidelines, with a particular focus on enhancing their EAP readiness. Qualitative data such as student feedback and perceptions will be gathered to gain valuable insights into their experiences with the platform.

The findings of this case study will contribute to a better understanding of the potential benefits associated with incorporating the XIPU AI platform as an instructional tool for Year 2 EAP preparation in engineering programmes. The successful outcomes of this research could inform curriculum development and provide valuable insights for educators seeking to enhance students' language skills while adhering to established guidelines.

Pengfei Fan (XJTLU): Enhancing Big Data Analytics Teaching through Competition-based Learning Using Kaggle Platform

This project seeks to revolutionise Big Data Analysis education using a competition-based learning approach on the Kaggle platform. We aim to prepare students for real-world challenges by engaging them in competitive data science contests. The proposal introduces an ML-based tool for objective student assessment in Kaggle competitions, overcoming the subjectivity of traditional evaluation. We also employ a rigorous mixed-methods research design to comprehensively evaluate this innovative teaching approach's impact on student engagement, learning outcomes, and quality. Our proposal aligns with existing research supporting the benefits of competition-based learning in enhancing student motivation and collaborative skills. This project's significance lies in its potential to equip students with critical data analysis skills needed for the modern job market while advancing innovative assessment techniques.

Denis Duret (UoL): LiftUpp – Implementation Phase at the School of Veterinary Science

Liftupp is an App-based curriculum mapping, feedback and assessment platform developed with clinical and work placements in mind. It was first created at the University of Liverpool dental school in 2009 by a team of experts in curriculum and assessment design, quality assurance and clinical education. Since then, it has been adopted by other UK dental schools and it has found wider applications in physiotherapy, medicine and veterinary science.

The project is looking at the implementation of LiftUpp within the School of Veterinary Science. Data collected with an online questionnaire from the last three years has been analysed and will be discussed at the conference.

The next stage of the project (June 2024) will be a qualitative analysis of this implementation using focus groups to discuss some of the themes emerging from the initial questionnaires.

Finally, there will be a questionnaire distributed to all the clinicians involved with LiftUpp in order to get their views on the assessment platform and also address some of the issues brought up by the students.

Sanaa Aljamani (UoL): Artificial intelligence in procedural assessment and feedback in Endodontic pre-clinical training of novice dental students: development of education tool

Artificial intelligence has become a very popular aid in teaching and searching for information in all aspects of life. Teaching is one thing that can benefit from this technology if used and analysed properly. This technology can be helpful in providing student guidance in certain practical steps in subjects that require hands on skills. In dental teaching, most of the skills have to be practiced in a pre-clinical settings to provide the students with the time required for hand skills in addition to guaranty safety and competency. In large classrooms. The tutor to students ratio might be compromised. This can affect the educational and learning experience. To overcome this, the use of machine training apps that involves AI can reduce the load on the tutor by simply training it to give feedback on certain practical steps. In this study, the team of the IT department in collaboration with the dental team are going to develop the tool to give students feedback. And study the effect of this technology in providing the knowledge and feedback to the students

Yang Zhang (XJTLU): Using Generate AI to prepare for IELTS

The 5-minute video shares various simple techniques for using AI and technology to prepare for IELTS exams, including four modules - listening, reading, writing and speaking. It can serve as a quick guide for students to study IELTS by themselves; also, it provides some ideas for teachers to save time in preparing lessons.

Kasey Clark (UoL): Using Panopto for fieldclasses

Panopto is a new system that we use at the University of Liverpool to replace Stream capture, it is useful however in other contexts as well, including outdoor lectures. Before a field class to Spain this September in Physical Geography, I had one-to-one meeting with students who declared any EDI needs. A couple of students have issues that prevents them from participating fully in the field. I got this idea to treat the lectures they would receive in the field like lectures on campus. Thus, I recorded field lectures, and students demonstrating field techniques and carrying out their group field projects. My team and I recorded over 20 videos over the week, which we posted to Canvas each evening. Moreover, several students didn't attend the field class and these recordings, helped them do the alternative assessments. First, they could watch the videos that pertain to the group project they were interested in using their field data to write their report. Second, we had a session in on campus where students, watched the appropriate field lecture videos, in addition to standard field guide materials to create their group's oral presentation. I have continued to record in other modules within the School of Environmental Science.

Vladimir Gusev (UoL): Chat to your Syllabus

Current modules contain a substantial volume of course material helping students to resolve their queries independently. However, this abundance presents a challenge in terms of navigation and search. Here, we explore the capabilities of readily available language models and the evolving software ecosystem that supports tool development using these models with the aim of creating a smart assistant capable of addressing common module-related questions. We outline technical aspects of this process and critically evaluate assistant's performance in order to see whether a modest engineering effort have the potential to reduce the burden on module coordinators and teaching assistants while enhancing students' self-study capabilities.

Shuhan Li (XJTLU): Facilitating Independent Language Learning with Generative AI

Gaining a good command of communication skills in a language requires an organic balance of language input and output. Producing language output and using the language for real-life communication purposes has always been a struggle for lower-level learners who are not yet proficient enough to engage in natural interactions, or for those located outside a target language community where opportunities for producing language output are ample. The learning process leading up to it requires not only strong motivation and grit, but also significant amount of independent effort.

Despite challenges posed to academic integrity, the emergence of generative AI has provided unprecedented opportunities for language learners to independently enhance their language skills. With a Generative AI tool, learners can make trial and errors in writing and even speaking without the influence of affective filter, gain timely and accurate feedback, and have repeated practice on language, grammar and mechanical aspects. This presentation discusses the potential ways language learning and teaching can be transformed by these digital tools by empowering learners with independent learning tools and strategies that accompany their course-based studies, and how teachers and schools can play an active role in facilitating this transformation.

Olga Gkountouna & Ron Mahabir (UoL): Exploring Higher Education Teachers' Needs and Values in the use of a Learning Analytics tool at the University of Liverpool

This project is a step towards developing a novel Learning Analytics visual tool (interactive Dashboard) that will help University of Liverpool instructors in the classroom. This tool will utilise Machine learning and AI techniques to provide instructors with insights about their students' cultural backgrounds and/or academic progress that will help them better tailor their classes to meet students' needs and expectations. We plan to interview academic staff from the University of Liverpool, to learn about their requirements, expectations, values, and thoughts on potentially using such a tool. During these interviews we will use a low-fidelity prototype for reference. The final goal is to use this information to build a high-fidelity prototype of this tool.

Chao Huang (UoL): AI for Assessment in Higher Science Education: A Survey

This literature survey explores the diverse applications of Artificial Intelligence (AI) in educational assessment, covering its implementation in assessment design (gamification), automated grading, and learning analytics. The survey summarizes key findings from various studies that demonstrate how AI techniques contribute to enhancing assessment practices in higher education. The survey addresses three research questions: 1) How do AI techniques help assessment in principle? 2) What are the applications of AI in assessment? 3) Is there any concern when applying AI in assessment? Through a comprehensive analysis of the literature, this survey paper provides insights into the benefits, challenges, and potential future directions for leveraging AI in educational assessment.

Jennifer Davies, Matthew Tickle, Laura Menzies, Fotios Misopolous (UoL): AI in Education: Let's ChatGPT about it

Recent advances in Artificial Intelligence (AI), specifically the rapid rise of Natural Language Processing (NLP) platforms such as Open AI's Chat GPT3.5, are already having a major impact on higher education institutions. There are significant concerns within academic communities about the threats such platforms pose to academic integrity. Many HE institutions have reacted quickly, announcing policies banning the use of AI software in the creation of assignment responses. Some are planning to return to strictly exam-based modes of assessment. In this article we reflect upon these recent events and how it has impacted our own teaching practice in the field of Business Management. We propose some alternative ways of thinking about these recent developments and focus on the opportunities that these AI platforms have to offer rather than the threats they pose.

David Martí-Pete (UoL): Music as a pedagogical prelude in maths: Does playing music before class have a positive effect in maths students?

I think most people would agree that listening to music has the power to put them in a good mood. I often listen to music on my way to the university. The idea of using the few minutes before a class starts to play a song that is synchronised to finish at the exact time that the class starts –sometimes known as a pedagogical prelude– has been used by teachers for many years. However, I think this is less common in maths classes than in other subjects. In this case study I played a different song every day to the students in my second-year maths class (around 200 students), and I tried to find out whether it had any positive effect on my students.

MAAP presentations

These talks are presented by current participants on our MA in Academic Practice programme.

Laura Blundell

An exploration of cross-disciplinary approaches to embedding digital citizenship into the curriculum

Robert Campbell

The Impact of Schwartz Rounds on Vet Student Psychological Distress

Stephen Deboo

Impact of haptically-enabled mixed reality dental simulators on undergraduate performance and self-efficacy in the context of endodontics

Niall Kenneth

Exploring how generative AI technologies can be effectively integrated into research-led teaching in Life Sciences to enhance teaching and learning outcomes

Rob Lindsay

Thinking outside the box: Developing clinical skills through virtual clinics

David Roberts

Exploring Medical student Views of Interactive Seminars to Support Online Learning and Preparation for Assessment

Sam Saunders

Rethinking authenticity in higher education pedagogy through ‘decolonising’ the curriculum

Simon Tavernor

Educational approaches to the development of psychological resilience in medical students: a qualitative review