



# APT 2022

20<sup>th</sup> Academic Practice and Technology Conference (APT2022)

Friday 1<sup>st</sup> July 2022

Institute of Education, UCL, 20 Bedford Way, Room W3.01

Co-hosted by the London School of Economics & Political Science,

Imperial College London and University College London.

## Abstracts

<b>Title of Abstract:</b>	'Distanced not distant' – what we learned from supporting staff to develop flexible learning and teaching during COVID 19.
Presenters (lead & co-presenters)	Rachel Challen Rachel Bancroft, Rosemary Pearce
Institution	Nottingham Trent University
Format	Case study
Abstract	<p>This presentation will explore how a School of Arts and Humanities developed remote support for colleagues as part of a strategic response to the pandemic using a tripartite approach:</p> <ol style="list-style-type: none"><li>1) Provided staff development to support colleagues as they moved from transferring teaching online to transforming their practice to fit the online environment.</li><li>2) Nurtured a community of practice through our mentoring approach, encouraging staff to share positive discoveries with each other, and helping to establish a new way of working appropriate for the new normal.</li><li>3) Developed staff digital confidence, keeping this at the forefront of our approach, which was key to helping ensure continuity of students' learning experience.</li></ol> <p>With the growth of flexible learning in the changed HE landscape, this presentation will reflect on the lessons we learned with a focus on the importance of digital confidence.</p>
References	<p>Alemdag, E. and Erdem, M., 2017. Designing an e-mentoring program for novice teachers in Turkey and investigating online interactions and program outcomes. <i>Mentoring &amp; Tutoring: Partnership in Learning</i>, 25 (2), 123-150.</p> <p>Bancroft, R., Pearce, R., Challen, R., Jeckells, D. and Kenney, J. (2021) 'Locating opportunities for building digital confidence in staff', <i>Journal of Learning Development in Higher Education</i>, (22). <a href="https://doi.org/10.47408/jldhe.vi22.775">https://doi.org/10.47408/jldhe.vi22.775</a>.</p>

	<p>Feldman, P. (2020) 'Foreword from Paul Feldman', Teaching staff digital experience insights survey: 2020 UK higher education (HE) survey findings, p3. Available at: <a href="https://repository.jisc.ac.uk/8184/1/Teaching%20DEI%20HE%20report%202020%20v1.4.pdf">https://repository.jisc.ac.uk/8184/1/Teaching%20DEI%20HE%20report%202020%20v1.4.pdf</a> (Accessed: 3 June 2021).</p> <p>Greener, S. and Wakefield, C. (2015) 'Developing confidence in the use of digital tools in teaching', <i>Electronic Journal of e-Learning</i>, 13(4), pp.260-267. Available at: <a href="https://eric.ed.gov/?id=EJ1062118">https://eric.ed.gov/?id=EJ1062118</a> (Accessed: 22 June 2021).</p> <p>Sandoff, M., Nilsson, K., Apelgren, B., Frisk, S. and Booth, S. (2018) 'Reflecting on and articulating teaching experiences: academics learning to teach in practice', <i>International Journal of Higher Education</i>, 7(6). <a href="https://doi.org/10.5430/ijhe.v7n6p139">https://doi.org/10.5430/ijhe.v7n6p139</a>.</p> <p>Wenger, E. (1998) <i>Communities of practice: learning, meaning, and identity</i>. Cambridge: Cambridge University Press.</p>
Keywords	Digital Confidence; Staff Development; Community of Practice;
Theme	Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	<p><b>Institutional Context</b>  From March 2020 when all teaching and assessments at Nottingham Trent University moved temporarily online, the response of the School of Arts and Humanities was to provide emergency support for staff remotely that would allow the School to keep moving forward. Building on the institution's strategy, there was a three-step approach incorporating an emergency response, transitional phase and development of a new signature pedagogy.</p> <p><b>Staff development</b>  In the beginning, the priority was to lay out very clearly the steps needed to be able to communicate with students. Our initial approach involved tightly-focused live training development sessions on the basics of using Microsoft Teams for teaching. This was complemented by regular drop-in sessions where colleagues could receive advice on their specific context.</p> <p>High levels of attendance at training sessions in the first month, and in our synchronous drop-in sessions, showed the importance of support at that time. Additionally, asynchronous resources (FAQs and support materials) saw very high sustained usage.</p> <p>As the situation developed, it was also important was to make sure that colleagues didn't feel that the effort they put into online delivery was wasted (content and their own learning) after a short time and they could see a development pathway for themselves and their curriculum. We developed a series of School staff development sessions that were more pedagogical in focus but had an explicit continuation from the development begun in the first weeks of online teaching. Attendance was much higher than sessions we ran pre-pandemic, and we were</p>

pleased to note that those who attended often came back to other sessions.

#### Community of practice

During the swiftness of moving to fully online delivery, it became apparent that some colleagues were firmly in a liminal space, unable to articulate or reflect on how they were going to get to the next step - afraid to take steps forward, but no longer grounded in their pre-pandemic curriculum design or thought processes.

To support colleagues during this time, we established a community of practice using a Microsoft Teams site, with colleagues sharing and supporting each other as they adapted to the changes, readily offering expertise and knowledge. Colleagues who are used to their content, teaching style, communications methods living solely in a face-to-face capacity, can feel very exposed in a digital environment. We carefully nurtured community, offering encouragement and enthusiasm which helped to mitigate hesitancy when sharing practice. Through an existing campus-based formula of ASK (Advice, Support and Knowledge) sessions which became available online, so that Just In Time support was available for anxious or nervous staff. What emerged was less and less of the Technologists advising and more and more a marvellous supportive community forming – colleagues who normally would not cross paths were talking about their approaches and worries and building their confidence in their own skills and approaches. Some evidence of the impact and influence of this approach on developing a community of practice was:

- Direct feedback from colleagues explaining successes using approaches with students which began or developed from discussions in the Community of Practice.
- Colleagues readily answering each other's questions in the Teams space, arranging meetings to try things out with one another, and increased practice sharing as the community developed.
- Repeat visits to drop in sessions demonstrates influence in the approaches colleagues were trying and reporting back on as they worked to develop their practice.

#### Digital confidence

The University was giving a lot of focus to developing digital skills. As a team, we quickly ascertained that digital confidence and digital resilience were more important because these were going to form the basis of the mentoring, support and development framework that was

was necessary for colleagues to succeed.

During the swiftness of moving to fully online delivery, it became apparent that some colleagues were firmly in a liminal space, unable to articulate or reflect on how they were going to get to the next step and afraid to take steps forward but no longer grounded in their pre-pandemic curriculum design or thought processes.

It was important for all colleagues that this unique situation was project managed well, which meant clear goals, transparent resources, support, effective communication, and setting the right tone.

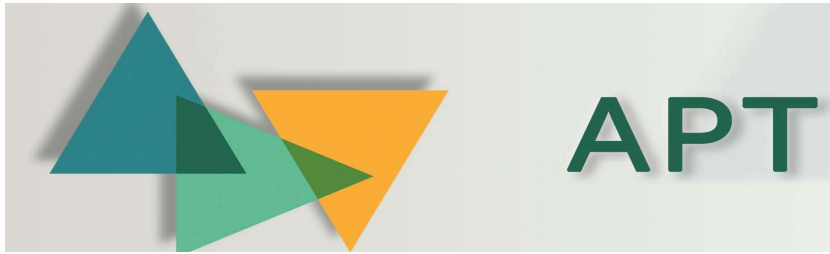
Evidence of the development of growth in staff digital confidence could be seen in:

- Increased sharing of digital practice over time as colleagues grew more confident with new approaches beyond the community of practice - at University and external events, and also on the team's externally facing blog.
- Direct feedback from colleagues noting their increased digital confidence – often coupled with comments on reduced anxiety.

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Session Time

11:40 - 12:30



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## Abstracts

<b>Title of Abstract:</b>	A perfect storm - constructing the digital assessment ship to ride the academic integrity wave
Presenters (lead & co-presenters)	Simon Walker
Institution	UCL
Format	Hackathon
Abstract	<p>A perfect storm is brewing for the world of academic integrity. The conventions can be confusing for many students who struggle to understand what is dishonest but the penalties for violations can be life changing. Our assessment regimes don't help as we erroneously assume some assessments are more cheat-proof than others. The storm is brewing because a new technology is threatening to change everything: digital assessment. The digital assessment ship has arrived, and it's set to change the game. With machines now able to write infinitely variable assessments, our rules working practices and assessment methods need to be clarified, In fact, it might even mean the beginning of a new era in which testing becomes less important and more flexible. This mini-hackathon will explore how we might shift our perceptions and design new assessments to test the skills, knowledge and attributes in the 4th industrial age.</p> <p>(this summary was partly written using the Text-curie 001 AI engine with the instruction"</p> <p>"Write a summary for a title of a hackathon "A perfect storm - constructing the digital assessment ship to ride the academic integrity wave" Include the idea that writing can be done by machines so we should be assessment university students differently"</p>
References	Marsden, H., J. Carroll, and J. T. Neill. 2005. "Who Cheats at University? a Self-Report Study of Dishonest Academic Behaviours in a Sample of Australian University Students." Australian Journal of Psychology 57 (1): 1–10. doi:10.1080/00049530412331283426

	<p>Rigby, D., M. Burton, K. Balcombe, I. Bateman, and A. Mulatu. 2015. "Contract Cheating &amp; the Market in Essays." <i>Journal of Economic Behavior &amp; Organization</i> 111: 23–37. doi:10.1016/j.jebo.2014.12.019</p> <p>Rowland, S., C. Slade, K. S. Wong, and B. Whiting. 2018. "Just Turn to Us': The Persuasive Features of Contract Cheating Websites." <i>Assessment &amp; Evaluation in Higher Education</i> 43 (4): 652–665. doi:10.1080/02602938.2017.1391948</p> <p>Tracey Bretag, Rowena Harper, Michael Burton, Cath Ellis, Philip Newton, Karen van Haeringen, Sonia Saddiqui &amp; Pearl Rozenberg (2019) Contract cheating and assessment design: exploring the relationship, <i>Assessment &amp; Evaluation in Higher Education</i>, 44:5, 676-691, DOI: 10.1080/02602938.2018.1527892</p>
Keywords	academic integrity; cheating; AI; digital assessment
Theme	The promise of current and emerging technologies in shaping the university of the future, Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	<p>Since 2021, UCL has adopted a digital assessment platform (AUCL) for all centrally managed exams. In 2022, it was used for 1900 assessments for 65,000 candidates. Prior to the lockdown in March 2021, assessments were undertaken in a large conference centre, hand written on paper and invigilated. Over the 2-year period of lockdown and the pivot to remote assessment, we have seen a pendulum shift from timed exams to open paper formats (lockdown) and, confident that AUCL is secure and robust, a shift back to timed assessments this year. One of the reasons often cited is the belief that timed exams can ensure academic integrity and standards, and heavily weighted assessment and invigilated examinations, in particular, are inherently secure forms of assessment. This however is not borne out in the literature (Bretag 2019; Rigby 2015; Rowland 2018) which concludes that there are opportunities to cheat in any assessment task including authentic assessment tasks. Indeed Bretag notes that students perceive they would be more likely to cheat in heavily weighted assessments and assessments with short turnaround times. Technology plays a role in both detecting and supporting cheating. Many online stores openly advertise products. These range from camera calculator apps that can solve maths from taking a picture of a problem, to text messaging calculators, to invisible headsets connected to devices. The notion that proctoring can prevent cheating in online remote assessments has still to be proved.</p> <p>The adoption of digital assessment within the context of traditional assessment brings a new set of challenges. Despite the widespread use of similarity and anomaly checking software many academic fail to spot collusion and cheating. On top of all this generative AI can now produce</p>

unique human-like text on demand (see abstract that was written largely through an AI tool).

This workshop will consider some of the issues of moving to remote digital assessment. A brief introduction will frame the challenges, and share some examples of generative AI. The main workshop will invite participants to bring along their assessments and try out some generative AI tools. It will conclude by an assessment of the threat and whether assessment in a digital age may need to change to maintain the rigor of academic standards in HE.

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<b>Title of Abstract:</b>	A Return to Teaching Here And There: Discussions on Hybrid Teaching
Presenters (lead & co-presenters)	Dominic Pates Dr Ivan Sikora, James Rutherford
Institution	City, University of London
Format	Field report
Abstract	<p>Hybrid teaching, the multi-modal educational model where students (and sometimes teachers) can be either online or in-room at the same time, has been utilised in niche higher educational contexts for more than a decade (Beatty, 2019). However, it has grown considerably in practice since the lifting of pandemic-related lockdowns for universities (Pelletier et al, 2022).</p> <p>'Teaching Here And There' (THAT), a podcast about emerging practice in hybrid teaching was launched online at APT2021. This year, THAT podcast returns to share the lessons we've learned so far from our conversations with academics, technologists and others that are helping to shape new ways of teaching and learning in higher education. We also seek to harvest thoughts and opinions from delegates in order to create a special APT episode of the podcast. Come to this session prepared to voice your perspectives on hybrid teaching and bring a smartphone.</p>
References	<p>Beatty, B. J. (2019). Hybrid-Flexible Course Design (1st ed.). EdTech Books. <a href="https://edtechbooks.org/hyflex">https://edtechbooks.org/hyflex</a></p> <p>Bower, M., Kennedy, G., Dalgarno, B., Lee, M. J. W., Kenney, J. (2014). Blended synchronous learning: a handbook for educators. Sydney, N.S.W. Office for Learning and Teaching, Department of Education.</p> <p>Hastie, M., Hung, I-C., Chen, N-S., Kinshuk. (2010). A blended synchronous learning model for educational international collaboration, <i>Innovations in Education and Teaching International</i>, 47:1, 9-24, DOI: 10.1080/14703290903525812</p>



	<p>Pelletier, K., McCormack, M., Reeves, J., Robert, J., Arbino, N. (2022). 2022 EDUCAUSE Horizon Report, Teaching and Learning Edition (Boulder, CO: EDUCAUSE, 2022).</p> <p>Rutherford, J. (2021). Hybrid Teaching - Fight or Flight? Inavate. <a href="https://www.inavateonthenet.net/news/article/guest-column-james-rutherford-university-of-london-on-hybrid-teaching--fight-or-flight">https://www.inavateonthenet.net/news/article/guest-column-james-rutherford-university-of-london-on-hybrid-teaching--fight-or-flight</a></p> <p>Sikora, I., Pates, D., (2021) Blended Learning to Fly, <i>New Vistas</i> 7(1), p.8-13. doi: <a href="https://doi.org/10.36828/newvistas.100">https://doi.org/10.36828/newvistas.100</a></p>
Keywords	podcast, audio, hybrid teaching, hybrid learning, HyFlex, multi-modal, learning spaces
Theme	Inclusion and exclusion in the new normal, Building communities and networks, The promise of current and emerging technologies in shaping the university of the future, Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	<p>The real time uniting of online and in-room participants for teaching and learning contexts is not new to higher education. Beatty (2019) traced the origin of the ‘Hybrid-Flexible’ (HyFlex) course design to 2005 at San Francisco State University. Hastie et al proposed a ‘blended synchronous learning’ model for international educational collaboration in 2010. Bower et al (2014) collected case studies from across Australia as part of the Blended Synchronous Learning Project between 2012 and 2013. The COVID-19 pandemic, however, has evidently accelerated and expanded the adoption of this approach across the higher educational landscape (Pelletier et al, 2022). Such a widespread uptake in an approach that can be highly complex in a variety of ways - technological, pedagogical, spatial - is a curious phenomena to have emerged following the lockdown phases of university responses to the pandemic.</p> <p>Building on our own experiments and explorations into hybrid teaching and blended synchronous learning (Sikora and Pates, 2021; Rutherford, 2021), we launched a new podcast about these emerging practices at the 2021 APT conference. The ‘Teaching Here And There’ (THAT) podcast was intended as a novel research methodology, to provide a space for conversation and critique of hybrid teaching, and as an opportunity for us to learn from the experiences of others that are finding themselves having to tackle similar or related challenges. So far, THAT has spoken to lecturers, technologists, academic developers, learning designers, and individuals from environmental psychology to learning environment consultancy to understand how practitioners are approaching hybrid teaching and to explore whether there is a future for it in higher education. Podcast themes have included learning space design, the challenges and realities for students, staff development for hybrid teaching, usage within the arts, the development of communities of practice, and human behavioural factors in hybrid contexts.</p> <p>In 2022, THAT podcast returns to APT to share some of the key lessons learned so far from the series. We also aim to utilise APT’s conference design of having high engagement and participation activities to</p>

maximise the benefits of a return to an in-person mode in order to create a special conference edition of the podcast. To facilitate this, we will be providing attending delegates with a series of discussion and contribution prompts on the topic and encouraging the recording and submission of audience audio clips. Selected clips will form part of an edited montage within the resulting episode that aims to provide a sense of APT opinion on hybrid teaching. Delegates will be invited to use their own internet-connected devices for audio recording and file submission, so a smartphone is advised in order to participate in this activity.

These discussions will provide a space for delegates to consider questions around equality of opportunity and access, flexible modes of working and studying, overcoming geographical barriers, and matters around student engagement and belonging. Delegates will also be asked to consider what futures hybrid teaching holds for higher education, including the roles of current and emerging technologies or wider trends such as socio-political or environmental factors.

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Session Time

10:40 – 11:30



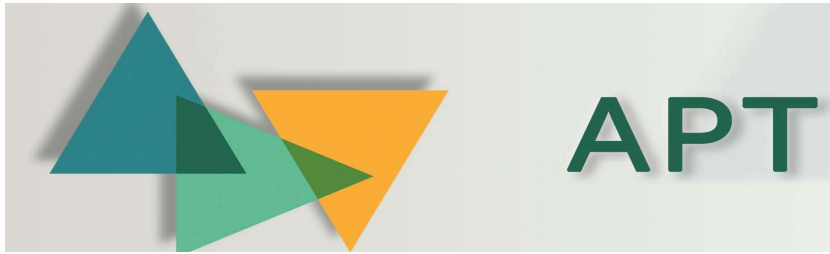
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## Abstracts

<b>Title of Abstract:</b>	An institutional approach to learning design
Presenters (lead & co-presenters)	Dr Clive Young Prof Simon Walker
Institution	UCL
Format	Research paper or work in progress
Abstract	"Curriculum design in higher education is not a formal activity", David Nicol observed a decade ago, "and there is little support, formal or informal, provided at most higher education institutions to help academics become better at designing learning activities, modules, and courses". While UCL was already addressing this issue, the experience of teaching through the pandemic made us all appreciate the value of curriculum design. Although the priority for next year is to ensure students return to in-person learning, UCL is already considering innovative blended approaches for future years. UCL is committed to provide end-to-end support for programme teams, from ideation and preparation of approval submissions through to delivery and review. To this end, a new UCL Programme Development team has formed to consolidate and extend our current pre-and post-approval support activities. We have found targeted workshops, tools, and structured discussions can help align the programme vision, learning outcomes and assessment, resulting in improved proposals. Interaction with academic teams early in the development process is already seen by participants as particularly beneficial. After approval, this initial relationship can be sustained as new teaching teams form via UCL's module design method ABC and add-on support tools and provision.
References	Nicol, D. (2012). Transformational change in teaching and learning: Recasting the educational discourse (Viewpoints evaluation report). Young, C. and Perović, N. (2016) Rapid and Creative Course Design: As Easy as ABC? <i>Procedia – Social and Behavioral Sciences</i> , 228, 390-395 Young, C.P.L. and Perović, N. (2020). ABC LD – A new toolkit for rapid learning design. European Distance Education Network (EDEN)

	Conference 2020, Timisoara, Romania. UCL Programme Development (2022) [ <a href="https://reflect.ucl.ac.uk/programme-development/">https://reflect.ucl.ac.uk/programme-development/</a> ]
Keywords	learning design, programme design, module design, blended learning
Theme	Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	<p>"Curriculum design in higher education is not a formal activity", David Nicol observed a decade ago, "and there is little support, formal or informal, provided at most higher education institutions to help academics become better at designing learning activities, modules, and courses". While UCL was already addressing this issue, the experience of teaching through the pandemic made us all appreciate the value of curriculum design. Although the priority for next year is to ensure students return to in-person learning, UCL is already considering innovative blended approaches for future years. UCL is committed to provide end-to-end support for programme teams, from ideation and preparation of approval submissions through to delivery and review. To this end, a new UCL Programme Development team has formed to consolidate and extend our current pre-and post-approval support activities. We have found targeted workshops, tools, and structured discussions can help align the programme vision, learning outcomes and assessment, resulting in improved proposals. Interaction with academic teams early in the development process is already seen by participants as particularly beneficial. After approval, this initial relationship can be sustained as new teaching teams form via UCL's module design method ABC and add-on support tools and provision. Converting to, or combining, conventional face-to-face teaching and online learning formats has long been recognised as a challenging design task for academics and support staff alike. In addition to complex and subtle design concepts, teachers must be aware of a range of policy guidelines including topics such as accessibility, employability, assessment diversity and load. As the post-pandemic sector moves to more blended and distance forms of delivery, these interwoven issues need to be addressed effectively and creatively. In the session we will explore how UCL is building early intervention and post-approval workflows to network and support academic teams through the whole development and review process.</p>
Session Time	10:40 - 11:30



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## Abstracts

<b>Title of Abstract:</b>	Artificial Intelligence Systems in Higher Education: Opportunities and Challenges
Presenters (lead & co-presenters)	Nurun Nahar Aftab Hussain, Victoria Lomas, Kyle Yarwood, Maria Niaz Rehman
Institution	University of Bolton
Format	Case study
Abstract	Emerging evidence suggests that the use of Artificial intelligence (AI) systems could offer, effective support for online learning and teaching, including personalising learning for students; support with assignment preparation and automating instructors' routine tasks. Instead instructors can dedicate their saved time to higher-value work (Seo et al., 2021). This research paper will present results from a qualitative pilot study where two AI systems -FirstPass and AskADA have been integrated into curriculum delivery on an undergraduate 3rd year module to understand and evaluate their effectiveness for teaching and learning and assignment support. Findings indicate that emerging AI systems could indeed shape the future of teaching and learning in Higher Education, only if utilised to compliment tutor mediated support.
References	Bates, T., Cobo, C., Mariño, O. et al. (2020) Can artificial intelligence transform higher education?. <i>International Journal of Education Technology in Higher Education</i> . 17, 42. <a href="https://doi.org/10.1186/s41239-020-00218-x">https://doi.org/10.1186/s41239-020-00218-x</a> Lynch, J. (2017). How AI Will Destroy Education <a href="https://buzzrobot.com/how-ai-will-destroy-education-20053b7b88a6">https://buzzrobot.com/how-ai-will-destroy-education-20053b7b88a6</a> . Nahar, N., Hussain A., Turner, H. and Storey, T. (2021) Ada goes to Uni: Chatbots in a Covid-19 era, TIRI Showcase Virtual Conference, 22 June 2021, University of Bolton. Seo, K., Tang, J., Roll, I., Fels, S., and Yoon, D. (2021) The impact of artificial intelligence on learner-instructor interaction in online learning, <i>International Journal of Educational Technology in Higher Education</i> , 18 (54), pp 1-23, DOI <a href="https://doi.org/10.1186/s41239-021-00292-9">https://doi.org/10.1186/s41239-021-00292-9</a>

Keywords	Artificial Intelligence, Chatbot, Technology enhanced pedagogy, Teaching and learning.
Theme	The promise of current and emerging technologies in shaping the university of the future
Session Description (Roundtable, workshops and Hackathons only)	<p>Artificial intelligence (AI) based technologies and its application is being widely used in some areas of society. However, it's application and potential benefits for teaching and learning in Higher education (HE) is yet to achieve its marked promises and bright future as predicted by some researchers. To date, research in this area primarily focused on the use of AI assistants such as chatbots and other educational software's with programmed algorithms that help with the process of learning. As such a key question facing the large-scale implementation of AI systems in HE is, "to what extent can AI facilitate or even manage the process of teaching and learning itself?". (Bates et al., 2020). In the academic year 2020/21, Nurun et al., (2021) conducted a study in partnership with students, to evaluate the benefits of using chatbots to enhance student engagement in HE. Findings from the study provided some compelling evidence to suggest AI driven systems such as chatbots can influence student engagement and promote a stimulating learning environment if integrated with institutional virtual learning management system (VLMS) such as Moodle or Blackboard. In the current study, we extended the research aim to test if similar AI systems can support students with assignment preparations by providing real time feedback. In this cross-institutional collaborative project, we tested FirstPass and AskADA, two AI systems currently being developed and utilised by Bolton College, a further education institution. AskADA is a campus digital assistant and FirstPass uses AI to provide real-time feedback to open-ended questions. These two systems were integrated with curriculum delivery on a HE6 module. The objectives were to train FirstPass and AskADA, so that they work in harmony to support the computer mediation of open-ended questions and support learning and assessment preparation by providing real time feedback and response, in order to answer research questions such as: Can a computer be trained to classify academic text? Does real-time feedback and response support greater autonomy and self-direction in students as they address answers to open-ended questions while preparing for assessments?</p> <p>We used a qualitative approach to evaluate the impact of the use of FirstPass and AskADA for learning and assignment support. Research tools used were semi -structured interviews of academic members of staff (n=6) on their views of using FirstPass and AskADA for curriculum delivery and assessment support followed by a student focus group (n=9) on the effectiveness of these systems for learning and summative coursework preparation. Findings from the staff interviews indicated that, academics would use FirstPass with caution since assignments are more than a test of learning outcomes and by using a system designed</p>

to analyse response to open ended questions based on assessment criteria, it would restrict a student's creativity as they would be more focused on achieving the targets set on the system. However, academics were more positive with the concept of a digital assistant such as AskADA, as it can be useful for teaching and learning and could significantly assist them with responding to emails related to timetables, induction, enrolment and related administrative tasks. In contrast, focus group findings suggests that students did find the real-time feedback on FirstPass very useful to improve their course work in relation to the assessment criteria or learning outcomes and articulate their coursework better in order to get higher grades. With regards to AskADA, although a chatbot feature on Moodle sites is supportive for learning, it is however limited to pre-loaded Q&As and as such may not be as effective as using browsing platforms such as Google to look up information related to a topic.

Overall, as Lynch (2017) argues, our study indicated that the benefits of these AI systems were limited when it came to helping with the development of higher order thinking skills in learners such as critical thinking, problem-solving, creativity and knowledge management, since AI applications like these tend to adopt a behaviourist model of learning: present/test/feedback (Bates et al., 2020).

We anticipate this research paper to raise some critical questions around the extent of the use of AI systems in Higher education to shape the university of the future. As bates et al. (2020) carefully indicates, AI applications has to 'fit' with modern educational theories and higher education policy researchers, academics and researchers must closely collaborate with AI systems developers in order for us to determine potential improvements to learning and pedagogy that AI may be able to offer so that the relational aspect of learning is not overlooked.

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Session Time

13:30 - 14:40



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## Abstracts

<b>Title of Abstract:</b>	Being in two places at the same time: Identifying opportunities and challenges in simultaneous hybrid learning spaces
Presenters (lead & co-presenters)	Khristin Fabian Ella Taylor-Smith; Sally Smith; Debbie Meharg
Institution	Edinburgh Napier University
Format	Research paper or work in progress
Abstract	Hybrid learning has been adopted to accommodate face-to-face teaching and online learning simultaneously as universities transition back to on-campus delivery. With lecturers and two groups of students occupying different learning spaces at the same time, our study aims to find out the challenges and opportunities of this mode of delivery. We observed four computing classes and conducted student and lecturer interviews. Observation data identified the challenges and opportunities of hybrid delivery. The lecturer interviews have so far been positive and highlighted the advantages and disadvantages of delivering online and face-to-face simultaneously. However, transitioning to this teaching space required lecturer familiarisation with the technology and modality. Student feedback on hybrid delivery has been positive, highlighting the flexibility it provides them. The convenience that online learning offers in combination with the practicality of the face-to-face environment has been appreciated by the students. This presentation shares the research to date. As we continue to explore this new environment, we would like to seek feedback from conference attendees about their experience of the hybrid learning space and their own views about its delivery. At a time of change, it is important to capture stakeholder views for an inclusive curriculum development.
References	Monk, E. F., Guidry, K. R., Pusecker, K. L., & Ilvento, T. W. (2020). Blended learning in computing education: It's here but does it work? <i>Education and Information Technologies</i> , 25(1), 83–104. <a href="https://doi.org/10.1007/s10639-019-09920-4">https://doi.org/10.1007/s10639-019-09920-4</a>



Raes, A., Detienne, L., Windey, I., & Depaepe, F. (2020). A systematic literature review on synchronous hybrid learning: gaps identified. *Learning Environments Research*, 23(3), 269–290.  
<https://doi.org/10.1007/s10984-019-09303-z>

Smith, M. K., Jones, F. H., Gilbert, S. L., & Wieman, C. E. (2013). The Classroom Observation Protocol for Undergraduate STEM (COPUS): A new instrument to characterize university STEM classroom practices. *CBE—Life Sciences Education*, 12(4), 618-627.

Xiao, J., Sun-Lin, H., Lin, T., Li, M., Pan, Z., & Cheng, H. (2020). What makes learners a good fit for hybrid learning? Learning competences as predictors of experience and satisfaction in hybrid learning space. *British Journal of Educational Technology*, 51(4), 1203–1219.  
<https://doi.org/10.1111/bjet.12949>

Keywords	hybrid learning environment; online learning; student perspective; engagement
Theme	Inclusion and exclusion in the new normal
Session Description (Roundtable, workshops and Hackathons only)	<p>The concept of blended and hybrid learning in higher education is not new. Blended learning has already been adapted by universities in varying degrees of blend. A systematic review of blended learning strategies found that these spaces promote student autonomy, increase student satisfaction, and increase student grades, but there are differences in the results across different studies depending on various factors such as the participants involved and the delivery of the blend (Monk et al., 2020). A form of adoption of blended/hybrid learning is the “synchronous hybrid learning environment” where both on-site and remote students simultaneously attend the learning activities (Raes et al., 2020). This is distinct from the usual delivery of blended or flipped learning where the elements of face-to-face and online interaction is decided by the lecturer. During the pandemic, some students were not able to attend the face-to-face class and had to join the class remotely, synchronously. There were also students who were not able to attend the scheduled class due to various reasons and were thus instead dependent of video recorded sessions. Xiao et al. (2020) notes that the key in hybrid learning spaces is flexibility in terms of time, space and pace of learning with learner autonomy being central to the design, allowing learners to find the mix that “works” for their current situation. The current study aims to understand the practice involved in a hybrid learning environment. With lecturers and two groups of students occupying different learning spaces at the same time, the current study aims to identify the challenges and opportunities of this new form of delivery and how lecturers and students perceive the hybrid learning space. This presentation will share work-in-progress. Using the COPUS observation protocol (Smith et al., 2013), we observed four modules delivering in a synchronous hybrid learning environment to identify the forms of engagement in this</p>

learning space as well as the challenges and opportunities of this mode of delivery. Through lecturer and student interviews, we aim to understand how the end users view the hybrid learning environment. Lecturer feedback of this learning space has been positive. The face-to-face contact with the students provided useful visual cues for content delivery; when to discuss further, when to pause or when to continue. The online space on the other hand has been active with questions from students and sometimes fellow students provided answers to student queries in comparison to the usual face-to-face environment. However, transitioning to this teaching space required familiarisation with the technology and modality. Problems with technology were found to disadvantage the online cohort, for example, a drop in the lecturer's connectivity is difficult to detect when the lecturer focus tends to be to the face-to-face students. This could also potentially disadvantage the face-to-face students when the focus shifts to troubleshooting the technical issues. While the lecturers interviewed found that student engagement was typical for the face-to-face or an online-only cohort, the observation data revealed limited attempts to engage both cohorts to participate in the same space (for example, by mixing groups or by using student response systems). Student interviews are underway. So far, feedback on the hybrid delivery has been positive highlighting the flexibility it provides students: the opportunity to engage in a face-to-face environment particularly for times when they needed lecturer support and the opportunity to do online learning when they felt more confident about the topic (and thus need limited support) or when their circumstances required them to attend lectures remotely (for example, if they are self-isolating or if students need to juggle several tasks for the day). The convenience that online learning offers in combination with the practicality of the face-to-face environment has been appreciated by the students. This presentation shares the research to date. As we speak with more lecturers and students sharing their experience of the hybrid learning environment, we hope to identify more opportunities and challenges with this mode of delivery. We also aim to uncover areas of inclusion and exclusion in this new normal. As we continue to explore this new environment, we would like to seek feedback from conference attendees about their experience of the hybrid learning space and their own views about its delivery. Universities across the UK are adopting different strategies as we transition back to campus so it would be useful to hear from the audience how their universities aim to adapt a hybrid learning strategy.

Session Time

10:40 – 11:30



# APT 2022

20<sup>th</sup> Academic Practice and Technology Conference (APT2022)  
Friday 1<sup>st</sup> July 2022  
Institute of Education, UCL, 20 Bedford Way, Room W3.01  
Co-hosted by the London School of Economics & Political Science,  
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## Abstracts

<b>Title of Abstract:</b>	Collaborative learning design brings an unexpected bonus for teachers
Presenters (lead & co-presenters)	Dr Clive Young Nataša Perović
Institution	UCL
Format	Research paper or work in progress
Abstract	<p>ABC Learning Design (ABC LD) is UCL's rapid-development curriculum design approach, now used widely across the sector. It encourages the socialisation of learning design. Teaching teams collaborate to create a visual 'storyboard' of the student journey, representing the type and sequence of learning activities required to meet module or programme learning outcomes. The method is known to be engaging and productive, but a recent international evaluation with more than a thousand ABC participants uncovered deeper reasons for its popularity. The main element is the opportunity to discuss the student journey in a non-judgmental, collegiate atmosphere. Most respondents found ABC LD had an immediate impact on course redesign despite it being a short intervention requiring little preparation. But such 'redesign' of the course in terms of changes may not be the only desirable outcome. The scrutiny and justification of the current course is itself appreciated, and seems to raise teacher confidence, an unexpected and pleasing outcome. Teachers can be quite self-critical of their own methods but often find, when discussing with colleagues, that the underlying rationale is robust enough to require only minor adjustments. Thus even if few changes are made, the design outcome can feel productive and satisfying to participants.</p>
References	<p>Erasmus + ABC to VLE (2018). Erasmus+ Project site [<a href="https://abc-ld.org/abc-to-vle/">https://abc-ld.org/abc-to-vle/</a>] ABC LD (2020). ABC LD Toolkit, [<a href="https://abc-ld.org/">https://abc-ld.org/</a>] ABC LD (2020). ABC LD Toolkit, Part 5 Evaluation: Does ABC LD work? [<a href="https://abc-ld.org/download-abc/part5-evaluation/">https://abc-ld.org/download-abc/part5-evaluation/</a>]</p>

	Young, C. and Perovic, N. (2016) Rapid and Creative Course Design: As Easy as ABC? Procedia – Social and Behavioral Sciences, no. 228, pp. 390-395.
Keywords	Learning design, staff development, student journeys.
Theme	Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	The dynamic, group based, rapid development format of ABC LD may feel quite different to existing methods of curriculum design, and even 'normal' academic development events. How will our academic colleagues react? Can such an apparently simple method achieve any useful results? What is actually gained from such short-form interventions? Since 2016 the UCL envelopment team has progressed through several stages of structured evaluation, from initial ad hoc feedback through qualitative evaluation. The session will present and discuss the evaluation results from the Erasmus Plus ABC to VLE project (2018-2020) that ran 84 ABC Learning Design workshops in 11 countries with more than a thousand participants.
Session Time	11:40 - 12:30



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## Abstracts

<b>Title of Abstract:</b>	Combining architectural designs to create inclusive university campuses for the present society
Presenters (lead & co-presenters)	Yezi Lin Hiral Patel
Institution	Cardiff University
Format	Research paper or work in progress
Abstract	The broader structural issues of equity and justice continue to manifest themselves in higher education, especially when it comes to the disadvantaged groups of people. Architecture has a particular role to play in achieving inclusivity. Hence, inclusivity should be considered in the design of university campuses and buildings to promote a sense of belonging and well-being for all. The design research project is based on Cathays Campus at Cardiff University, considering the current situation of the campus, developing architectural designs to improve and enhance existing buildings empowering the experience of equity and fairness in the university. In this paper, research methods including persona, user journeys, and schedule of accommodations were used to understand the real needs of users and help to define spaces to implement architectural designs.
References	Hodges, Jenna M., and Jonathan S. Gore. "Social connections and well-being: With whom do you identify and why?." <i>Psychological Studies</i> 64.4 (2019): 436-446. Jones, Sandra C., et al. "Inclusion, exclusion and isolation of autistic people: Community attitudes and autistic people's experiences." <i>Journal of Autism and Developmental Disorders</i> 52.3 (2022): 1131-1142. Leake, David W., and Robert A. Stodden. "Higher education and disability: Past and future of underrepresented populations." <i>Journal of Postsecondary Education and Disability</i> 27.4 (2014): 399-408. "A World of Inequality", PennState, March 27, 2017, <a href="https://sites.psu.edu/inequalitycivicissues/2017/03/27/civic-issues-4-inequality-in-college-admissions/">https://sites.psu.edu/inequalitycivicissues/2017/03/27/civic-issues-4-inequality-in-college-admissions/</a> .

	Charmarkeh, Houssein. "Seniors and technologies: Issues of inclusion and exclusion." <i>Canadian Journal of Communication</i> 42.2 (2017): 189.
Keywords	inclusive, architectural design, social justice, equality, university campus, higher education
Theme	Inclusion and exclusion in the new normal
Session Description (Roundtable, workshops and Hackathons only)	<p>- Relate to sub-themes</p> <p>Human beings need to be accepted and recognized in social groups in order to feel well-being, and having social relationships is also directly related to an individual's self-esteem (Hodges and Jonathan, 2019). The experience of social exclusion and isolation from peers is particularly evident in adults with disabilities, and most are at a higher risk of suffering from mental illness as a result (Jones et al., 2022). For disadvantaged groups of people, the obvious difference in values and norms, and background from other students can lead to a lack of security at university, making them more likely to drop out or cause psychological issues (Leake and Robert, 2014). Therefore, there is still a long way to go in focusing on the well-being of the disadvantaged people, and there is a higher responsibility, especially in higher education, to take the lead on inclusive topics and to treat everyone equally and with concern.</p> <p>- Equality of opportunity and access</p> <p>There are many issues related to widening the participation agenda in higher education. barriers to higher education might be related to gender bias, poverty, and other socioeconomic factors. For instance, statistics show that children from families with higher economic levels have a greater chance of receiving higher education, and vice versa (A World of Inequality, 2017). Therefore, providing equal and fair access to all applicants from different backgrounds is the first step towards inclusive education. At the same time, with a focus on the physical, mental and psychological well-being of on-campus students, case studies and surveys have been conducted with the aim of providing a harmonious and secure architectural environment on campus, thereby contributing to the progress of an inclusive university.</p> <p>- research question</p> <p>Through the identification and study of current inequalities in the higher education sector, the aim of this design research project is to explain why the topic of inclusivity is crucial to higher education campuses and suggest architectural interventions to achieve inclusiveness and fairness.</p> <p>- Methods:</p> <p>Several research methods were used including user research through interviews, creating personas, and user journeys to research and discover the user needs. This was followed by spatial analysis of case studies through analyzing the services provided in those buildings.</p>

- Relevance to the practice of teaching and learning with technologies

Fortunately, in today's society, technology is advancing at a rapid pace and a wider variety of educational facilities are being designed to help bring equitable and non-discriminatory resources to a wider range of people. For example, there are many common misconceptions in society about the link between older people and technology, that they are not interested in digital technologies or do not want to use them, when in fact the adoption of digital technologies for teaching in universities directly facilitates the use of the network and digital technologies by older people to enjoy their online communication and interaction activities (Charmarkeh, 2017). Therefore, it is believed that the use of digital technology in education can also assist in the realization of the idea of inclusion in higher education institutions, to include all people in society, increase the sense of belonging for them and achieve the goal of improving the well-being of society.

- Findings

Based on the research, a series of user surveys through personas, and so on, it was found that there are many categories of minorities and disadvantaged groups that are very easily overlooked by others. However, these groups need to be inclusively considered in the design of campuses and the buildings therein. The findings suggest that increasing the sense of belonging of various groups on campus is essentially based on providing more opportunities to socialize and meet people, and thus architectural design can help a lot in this regard. For example, there need to be public spaces on campus where people can gather in large numbers to support and attract fair participation in activities without discrimination, basic amenities such as kitchens and inclusive washrooms can be made available to those who need them, etc.

- Conclusion

To conclude, it is believed that there are many aspects that need to be carefully considered in order to achieve an inclusive campus, considering architectural designs and specific technologies on actions that can be used to assist in addressing the exclusion and isolation that still exist in today's higher education system, while focusing on combining social justice and digital education to create a higher education institution that is best suited to the current generation and for the benefit of all those in need.

Session Time

10:40 – 11:30



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## Abstracts

<b>Title of Abstract:</b>	Co-production of a strategic technology roadmap to support teaching and learning
<b>Presenters (lead &amp; co-presenters)</b>	Dr Alison Purvis Dave Thornley
<b>Institution</b>	Sheffield Hallam University
<b>Format</b>	Research paper or work in progress
<b>Abstract</b>	<p>Our research developed, describe, and evaluate a co-production approach to strategic implementation of technology in a UK Higher Education Institution. In previous academic years, the digital and technology service undertook an annual call for technology hardware and software. Requests were scrutinised by senior staff from professional services and academic areas. What this approach lacked was a strategic view of the development and implementation of technology across a time span greater than the immediate next year, and the connection to learning, teaching and assessment development. As traditional IT services change into more sophisticated digital technology services, a more considered approach to planning technology purchasing, implementing, and decommissioning is necessary. Through a collaborative approach, a 3-year departmental roadmap was created. We will share our experiences of developing this new approach and share our recommendations for collaborative practice between academics and digital technology professionals in higher education.</p>
<b>References</b>	<p>Baum, F., MacDougall, C., &amp; Smith, D. (2006). Participatory action research. <i>Journal of epidemiology and community health</i>, 60 (10), 854–857. DOI: <a href="https://doi.org/10.1136/jech.2004.028662">https://doi.org/10.1136/jech.2004.028662</a></p> <p>Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P.A., &amp; Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. <i>Journal of Applied Learning and Teaching</i>, 3, 1. Available online at: <a href="https://doi.org/10.37074/jalt.2020.3.1.7">https://doi.org/10.37074/jalt.2020.3.1.7</a></p>



	<p>Kemmis, S., McTaggart, R., and Nixon, R., (2013). <i>The Action Research Planner: Doing Critical Participatory Action Research</i>. Singapore: Springer Singapore.</p> <p>Mercer-Mapstone, L., Dvorakova, S. L., Matthews, K. E., Abbot, S., Cheng, B., Felten, P., Knorr, K., Marquis, E., Shammas, R., &amp; Swaim, K. (2017). A Systematic Literature Review of Students as Partners in Higher Education. <i>International Journal for Students as Partners</i>, 1(1). DOI: <a href="https://doi.org/10.15173/ijasp.v1i1.3119">https://doi.org/10.15173/ijasp.v1i1.3119</a></p> <p>Lee, S.M., Olson, D.L., Trimi, S. (2012) Co-innovation: convergenomics, collaboration, and co-creation for organizational values. <i>Management Decision</i>, 50, (5), 817-831. DOI: <a href="https://doi.org/10.1108/00251741211227528">https://doi.org/10.1108/00251741211227528</a></p> <p>Verschuere, B., Brandsen, T., and Pestoff, V. (2012) Co-production: The State of the Art in Research and the Future Agenda. <i>VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations</i>, 23:1083–1101 DOI <a href="https://doi.org/10.1007/s11266-012-9307-8">https://doi.org/10.1007/s11266-012-9307-8</a></p>
Keywords	co-production, action research, digital strategy
Theme	Building communities and networks
Session Description (Roundtable, workshops and Hackathons only)	<p><b>Introduction:</b>  Our session will present an online recorded presentation of our research project, the ongoing work of the project, and the recommendations for practice resulting from the work. Our work aligns to the theme of ‘Building Communities and Networks’ directly as the project sought to develop inter-institutional networks and collaborative working between academics and professional services colleagues with a focus on overcoming perceived barriers and building understanding. Using the online presentation as a stimulus we will facilitate a discussion of the recommendations and our current actions for furthering this work. Our action research approach will continue into this dissemination activity with participants being encouraged to become contributors to our ongoing exploration of collaborative working.</p> <p><b>Research Approach:</b>  For many years Digital Technology Services (DTS) have undertaken an annual call with technology requests across the organisation being collated, prioritised and the nature of the business criticality described. Requests are scrutinised by senior staff from DTS and key stakeholders from other professional services and academic areas across the University, and decisions on investment made. What this approach typically lacked was a strategic view of the development and implementation of technology across a time span greater than the immediate coming academic year. It also lacked contextual understanding of the requests and how they related to teaching and learning. As traditional IT services have changed and continue to</p>

develop into a greater sophistication of complex digital technology services; a more considered and strategic approach to planning technology purchasing, implementing, and decommissioning of technology services is necessary. Recognising the limitations of the current approach, we took a partnership approach to a more strategic way of planning and implementing digital technology in an academic department. While this approach is grounded in a pragmatic approach to effective use of resources, the collaborative and strategic approach was new and as such the project team deliberately set out to capture our experiences, and the experience of the stakeholders involved in the updated approach to digital technology service requests and planning.

Background:

Co-production is well evidenced as a model of good practice in Higher Education (Mercer-Mapstone et al., 2017), and much research is focused on student-staff co-production, and university-employer partnerships. Effective co-production recognises the value of diverse teams working together with their combined expertise and specialisms creating greater strength, improved outcomes, and greater satisfaction with how work has been undertaken (Lee, Olson and Trimi, 2012). Having a greater involvement of stakeholders in development of services can increase accountability and ownership of the services while also improving perceptions of the quality delivered (Verschuere, Brandsen and Pestoff, 2012) and results in more innovative outcomes (Lee, Olson and Trimi, 2012). Participative action research where the reflections of the researchers and their active participation in the outcomes of the process will be interwoven throughout (Baum, McDougall and Smith, 2006). This type of research allows the researchers to confront the impact of their practice in a critical way where we are clear about our interests and investments in the research by reporting reflections on those factors (Kemmis, McTaggart, and Nixon, 2013).

With a deeper connection of service delivery to departmental strategic aims, we anticipated that synergies between departments would be surfaced by professionals in Digital Technology Services which will enable further co-working on joint areas of interest highlighted, with potential efficiencies and innovations made for the organisation (Lee, Olson and Trimi, 2012). Similarly, to ensure a fully strategic and vision-led approach which connects to the strategy of the University, the workshops used questions and resources which were aligned to the organisational curriculum model. The model is a lens by which the curriculum is viewed, and the resulting design is innovative, creative, and aligned to the strategic intent of the university. A core aim of this project was to ensure that the implementation of digital technology is also strategic and serves the specific aims of a department as well as the overall direction of the organisation.

The impact of the COVID-19 pandemic on digital technology use has been significant with many changes to how we work and our

pedagogical approaches (Crawford et al., 2020). The perspectives and expectations of stakeholders has significantly shifted since early 2020 and changes are undoubtedly ongoing. There is a change in attitude to both the expectations for provision of digital services and how those services are strategically planned. In our session we will share our model of co-working, collaboration, and strategic planning, as well the outcomes of a workshop-based collaborative approach to strategic planning of digital technology service provision in a Higher Education Institution.

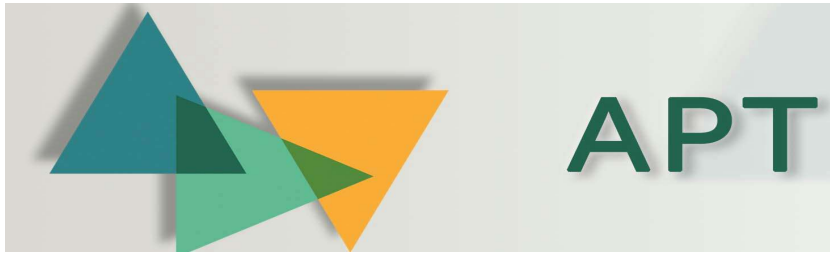
Session Summary:

Our video presentation will cover the background to our research, our findings, and our recommendations for practice. Viewing this video presentation will provide the stimulus for a facilitated discussion. We will encourage participants to discuss approaches to co-production and collaboration between academic and professional service colleagues in higher education, challenge our recommendations, and connect our findings to their own inter-professional networks.

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Session Time

10:40 – 11:30



# APT 2022

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## Abstracts

<b>Title of Abstract:</b>	Creating a city learning network: Building university's connections with local communities
Presenters (lead & co-presenters)	Le Ma Le Ma
Institution	Cardiff University
Format	Research paper or work in progress
Abstract	<p>At a time when public demand for learning is high, our society has failed to provide sufficient public learning spaces for the public. Learning Terminal is a new type of learning space that has emerged from the process of urban spatial renewal. It is a place for learners to learn, communicate and collaborate in the city, and is a physical medium for developing learning attitude, knowledge and skills. Learning Terminal was designed using Cardiff University and Cardiff Capital City Region as a pilot. The experimental design of the Learning Terminal was developed through creating an architectural manifesto. A study of user groups was conducted to explore the interaction between university education and community learning spaces from the perspective of citizens who are not studying at the university as well as university students. The findings and propositions emerging from this design research project suggest the potential of Learning Terminal to fulfil civic mission of universities.</p>
References	<p>LEE, Y, S. and CHOTTENFELD, M, A. 2014. Collaborative Knowledge Creation in the Higher Education Academic Library. Journal of Learning Spaces.</p> <p>Royal Town Planning Institute. 2020. 15 Minute Cities. Available at: <a href="https://www.rtpi.org.uk/find-your-rtpi/rtpi-english-regions/rtpi-london/london-calling-newsletter/15-minute-cities20-minute-neighbourhoods/">https://www.rtpi.org.uk/find-your-rtpi/rtpi-english-regions/rtpi-london/london-calling-newsletter/15-minute-cities20-minute-neighbourhoods/</a> [Accessed: 20 May 2022]</p> <p>UNESCO Institute for lifelong learning. 2019. Manifesto: Learning Cities for Inclusion. Available at: <a href="https://uil.unesco.org/system/files/iclc2019_medellinmanifesto_final.pdf">https://uil.unesco.org/system/files/iclc2019_medellinmanifesto_final.pdf</a> [Accessed: 20 May 2022]</p>

	<p>Welsh government. 2019. Cardiff Capital Region Skills Partnership- Employment and Skills Plan 2019-22. Available at: <a href="https://businesswales.gov.wales/skillsgateway/sites/skillsgateway/files/documents/2020_02_005%20Cardiff%20Capital%20Region%20Skills%20Partnership%20Employment%20and%20Skills%20Plan%202019%20-%202022..pdf">https://businesswales.gov.wales/skillsgateway/sites/skillsgateway/files/documents/2020_02_005%20Cardiff%20Capital%20Region%20Skills%20Partnership%20Employment%20and%20Skills%20Plan%202019%20-%202022..pdf</a> [Accessed: 15 May 2022]</p>
Keywords	Learning City Network; Learning terminal; Learning space
Theme	Building communities and networks
Session Description (Roundtable, workshops and Hackathons only)	<p>Many non-university students face the problem of not being able to access university education, and although cities have provided civic learning policies such as learning cities and Civic University, they still fail to address the needs of a large number of learners (UNESCO Institute for lifelong learning 2019). The learning terminal is a new type of learning space that is part of the urban spatial renewal process, providing open and flexible learning spaces for learners in the city. The concept of the learning terminal is based on a review of policy documents and case studies of learning city. This design research project proposes the concept of Learning Terminal through identifying relevant policy initiatives, launch a city-wide learning campaign and establish learning terminals to help complete the establishment of an education system for retraining and reskilling people.</p> <p>The Learning Terminal proposition consists of four components. The first component of Learning Terminal network is policy design, i.e. finding local policy support to provide financial support for the establishment and operation of the learning terminal. The feedback from the learning terminal could be used by the policymakers to improve the policy for future establishing learning terminals.</p> <p>The second component is the learning campaign, where the government and the community carry out a lot of awareness-raising activities after receiving policy and funding support (Lee and Chottenfeld, 2014). For example, by putting up banners, videos, advertisements and other communication devices in the city, the message can be sent to the public that a new era of learning has arrived. The publicity increases the public's sensitivity to learning, changes public attitudes toward learning, calls for more people to get involved in learning and increases the impact of learning terminal.</p> <p>The third component is the learning terminal, which is a learning space open to all learners in the city. To identify the needs of such a terminal, the learning characteristics of different groups of people were identified in the context of Cardiff City through interviews, literature review and discussions. The facilities in the learning terminal were also based on the future skills needs of key industries in Cardiff region (Welsh government 2019). The physical architecture of the first learning</p>

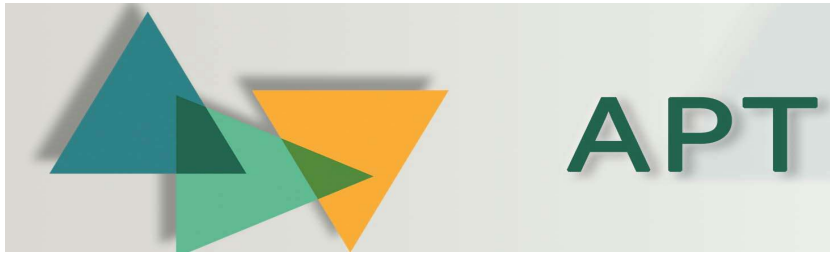
terminal is characterised by experimentation, openness, flexibility and shared functionality, and will serve as a prototype for other learning terminals to follow.

The fourth part, Network of Learning Terminals, is an important step in the completion of this proposition. By finding suitable locations for learning terminals at city railway stations and using the '15 minute cities' policy (Royal Town Planning Institute 2020) to establish civic learning circles, a number of learning terminals could be established, thus forming the Network of Learning Terminals, which ultimately helps to fulfil university's civic mission and to help develop a learning city.

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Session Time

10:40 – 11:30



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## Abstracts

<b>Title of Abstract:</b>	Exam Packages: A Case Study
<b>Presenters (lead &amp; co-presenters)</b>	Gloria Visintini David Perkins de Oliveira
<b>Institution</b>	University of Bristol
<b>Format</b>	Case study
<b>Abstract</b>	<p>The purpose of this presentation is to introduce and discuss our exam packages. This is an online solution designed and implemented during the pandemic to deliver exams at the University of Bristol. Online packages for assessing language acquisition were developed by the Faculty of Arts in collaboration with the central Digital Education Office and the Exams Office. They are accessible via our Virtual Learning Environment, namely Blackboard, and have allowed us to effectively replace our on-campus exams.</p> <p>Each package includes:</p> <ul style="list-style-type: none"><li>• exam paper(s) and additional materials where used (e.g. audio and/or video files);</li><li>• guidelines on how to access the exam paper, academic integrity, who to contact for technical issues, and how to prepare and submit the exam; and</li><li>• a submission point.</li></ul> <p>Students are given at least one week to familiarise themselves with the package and practice submitting. They are only given access to the contents of the exam paper at the start of the exam. The packages replicate the on-campus experience as students only have a limited amount of time to complete their exam – which pedagogically has meant we have been able to keep our assessment formats albeit with some changes to task design to allow for the unsupervised format of the online exams. The online exams assess most language skills, such as grammar, writing, and reading and listening comprehension.</p> <p>While in-depth student feedback on the usage of such packages needs to be collected at the end of this academic year, initial findings from</p>

	<p>students are that they find the online format less stressful and appreciate the flexibility of taking the exam from their preferred location and environment. As for staff feedback, it has been very positive, despite previous concerns about possible inflation of marks and maintaining academic integrity. The experience of being able to assess language skills online in this way is helping to break down the traditional opposition in our institution to offering hybrid or distance-learning programmes for language-learning due to an assumption that language assessment needed to be carried out in person.</p>
References	
Keywords	language assessment, online exams, institutional change
Theme	Technology, pedagogy and assessment, The promise of current and emerging technologies in shaping the university of the future
Session Description (Roundtable, workshops and Hackathons only)	<p>Our session illustrates a case study that sits within the literature of teaching and learning with technologies, with a specific focus on the role of the Virtual Learning Environment (VLE) in delivery assessment. Indeed, David Perkins and I will be talking about how our online exam packages, designed and implemented in the Blackboard VLE, have allowed language units at the University of Bristol to carry on assessing language acquisition effectively during the pandemic, and are giving us the flexibility to navigate between delivery modes – e.g. blended and online. We will also describe how this new way of assessing feeds well into our already established online processes for marking and moderation, also facilitated via the VLE. Finally, we will explore how these packages will in future potentially help us design and deliver new distance learning or blended learning undergraduate or postgraduate programmes.</p> <p>Moving assessments to an online format is not original in itself. Most institutions and universities have been forced to do that in the last two years. However, how we did it and the beautiful solution we came up with via Blackboard is what is original about our case study. It was designed in collaboration between academic staff and professional services colleagues. It is a technical solution informed by pedagogical principles of distance education and based on extensive consultation to make sure its design meets our educational requirements and our administrative processes as well.</p> <p>Our initial findings are positive and show that our online exam packages are working well - meeting the intended objectives without compromising academic integrity. As such they are demonstrating that language knowledge acquisition can be assessed effectively and fairly online. Before the pandemic, it was a popular belief among linguists</p>



that language units could only be rigorously assessed by a combination of coursework and in-person exams.

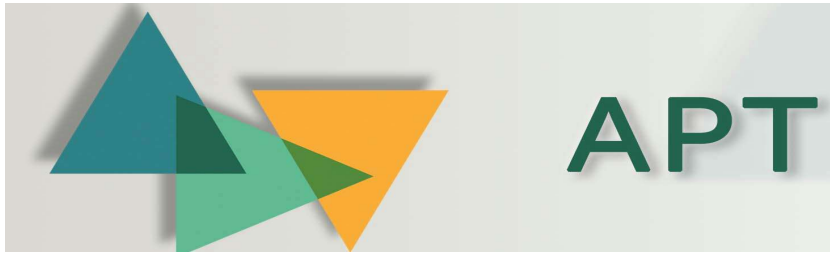
The online exam packages are part of a bigger revamp of 800+ Blackboard sites undergone by the Faculty of Arts, which involved modernising their looks and adopting a consistent and accessible structure across sites. The effectiveness of the new design, together with the efficacy of our exam packages, suggests that VLEs are still useful platforms for providing digital education. Yes, they are not always perfect; we sometimes have to cope with some technical bugs and/or develop workarounds to overcome them. But despite some shortcomings, with our success story, we are proving that the VLE is not dead as some literature has been suggesting (Weller, 2007; Stiles, 2007).

On the contrary, the VLE can play an important role not just in teaching online but in assessing online too. Our work truly challenges the idea that Virtual Learning Environments need to be replaced (Stiles, 2007; Weller, 2007; Parslow et al, 2008; Phipps, Cormier & Stiles, 2008; Brown, 2010; Meishar-Tal, Kurtz & Pieterse, 2012; Maleko et al, 2013); and agrees with the JISC pre-pandemic publication 'VLE Review Report 2020' according to which, yes, some VLEs might not be glossy platforms, but it is what one does with the VLE that makes the difference.

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Session Time

13:30 - 14:20



# APT 2022

20<sup>th</sup> Academic Practice and Technology Conference (APT2022)  
 Friday 1<sup>st</sup> July 2022  
 Institute of Education, UCL, 20 Bedford Way, Room W3.01  
 Co-hosted by the London School of Economics & Political Science,  
 Imperial College London and University College London.

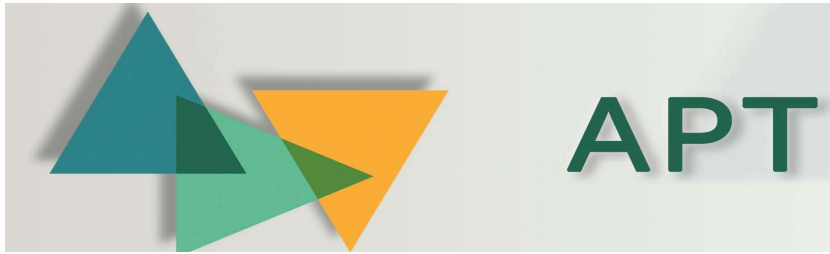
## Abstracts

<b>Title of Abstract:</b>	Hybrid/ hyflex inclusivity tensions: affordances, barriers, experiences and opportunities of simultaneous in-person and online teaching.
Presenters (lead & co-presenters)	Martin Compton Alex Standen, Ben Watson
Institution	UCL
Format	Round table
Abstract	<p>In this round table discussion, we will continue an ongoing exploration and evaluation of experiences and potentials of hybrid (aka hyflex) teaching (that is, simultaneous in-person and online teaching). With a focus on inclusivity in this session, we will specifically interrogate hybrid/hyflex teaching against accessibility and EDI discourses. Using prompt materials from a UCL symposium in June (quotes, collated ideas, discussion summaries), we will ask:</p> <p>How has hybrid/hyflex teaching fostered inclusion?          Have hybrid/hyflex teaching practices simultaneously fostered exclusion?          What do belonging and community look like in the hybrid/hyflex environment?          What future does it have and what still needs to be done?</p>
References	<p>Bashir, A., Bashir, S., Rana, K., Lambert, P., &amp; Vernallis, A. (2021). Post-COVID-19 Adaptations; the Shifts Towards Online Learning, Hybrid Course Delivery and the Implications for Biosciences Courses in the Higher Education Setting. In <i>Frontiers in Education</i> (p. 310). Frontiers.</p> <p>Beatty, B. J. (2019). <i>Hybrid-Flexible Course Design</i> (1st ed.). EdTech Books. <a href="https://edtechbooks.org/hyflex">https://edtechbooks.org/hyflex</a></p> <p>Benson, K. (2021). In <i>Favour of Universal Design: The Argument for Continued Hybrid Online/In-Person Courses in the Wake of the COVID-19 Pandemic with a Focus on Students with Disabilities</i>. (June 28, 2021).</p> <p>Detyna, M., Sanchez-Pizani, R., Giampietro, V., Dommett, E. J., &amp; Dyer, K. (2022). Hybrid flexible (HyFlex) teaching and learning: climbing the mountain of implementation challenges for synchronous online and</p>

	<p>face-to-face seminars during a pandemic. <i>Learning Environments Research</i>, 1-15.</p> <p>Hodges, C., Moore, S., Lockee, B., Trust, T., &amp; Bond, A. (2020). The difference between emergency remote teaching and online learning. <i>Educause Review</i> Online. <a href="https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning">https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning</a></p> <p>Kohnke, L., &amp; Moorhouse, B. L. (2021). Adopting HyFlex in higher education in response to COVID-19: students' perspectives. <i>Open Learning: The Journal of Open, Distance and e-Learning</i>, 36(3), 231-244.</p>
Keywords	hybrid, hyflex, teaching, online, engagement, inclusivity, exclusion
Theme	Inclusion and exclusion in the new normal, The promise of current and emerging technologies in shaping the university of the future, Building communities and networks
Session Description (Roundtable, workshops and Hackathons only)	<p>Teaching students simultaneously online and in-person grew in prominence during the transition back to campus in 2021-22 (Detyna et al., 2022) though it is important to distinguish crisis-driven expediency from intentionally designed teaching in this way (Kohnke and Moorhouse, 2021) in much the same way established, planned online teaching was distinguished from 'Emergency Remote Teaching' (Hodges et al., 2020) adopted across the HE sector at the start of the pandemic. UCL's approach to hybrid teaching was to prioritise scale, and our 'basic hybrid' model represented a remarkable effort in both upgrading our tech and upskilling our staff and students. It afforded access to students unable to attend in person (Bashir et al., 2021), and the techniques developed feature prominently in accessibility discourses (Beatty, 2019; Benson, 2021; Kohnke and Moorhouse, 2021). Such techniques have also woven their way into our everyday non-teaching meetings and activities, and calls for ongoing hybridity are prominent.</p> <p>In early June 2022, UCL hosted an event where colleagues from within and outside the institution reflected on the incredible efforts and challenges of the past year. Together, participants explored opportunities, barriers, enablers, and potential hybrid futures for teaching – and wider working practices – in HE. Our broad goal was to examine if (and if so, to what extent) hybrid/ hyflex events could and should be part of the way we plan for the future. In this Round Table we wish to carry on this conversation with a focus on inclusivity, specifically to interrogate hybrid/hyflex teaching against accessibility and EDI discourses. Using prompt materials from the UCL event (quotes, collated ideas, discussion summaries), we will ask:</p> <p>How has hybrid/hyflex teaching fostered inclusion?</p> <p>Have hybrid/hyflex teaching practices simultaneously fostered exclusion?</p> <p>What do belonging and community look like in the hybrid/hyflex environment?</p> <p>What future does it have and what still needs to be done?</p>

Session Time

13:30 – 14:20



# APT 2022

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## Abstracts

<b>Title of Abstract:</b>	Lessons learned from academics' experiences of emergency remote teaching
Presenters (lead & co-presenters)	Dr Timos Almpanis Dr Paul Joseph-Richard
Institution	Kingston University
Format	Research paper or work in progress
Abstract	<p>This talk will report on the findings of a qualitative study that explored academics' experiences of remote teaching during the COVID-19 pandemic. The UK Professional Standards Framework has been used as a lens through which to bring to light ten academics' experiences of adapting their teaching and assessment strategies to address the challenges faced. The five themes that emerged from the research were the following:</p> <ol style="list-style-type: none"><li>1 Swift, surface-level adaptation in designing and planning lessons.</li><li>2 Synchronous/asynchronous delivery of past materials.</li><li>3 Implementing alternative online assessments.</li><li>4 Increased levels of support for the 'connected, but disengaged' students.</li><li>5 The emergence of a 'learning' practitioner.</li></ol> <p>The above themes as well as the lessons learned about the effective convergence of technology and pedagogy will be discussed so that any future crisis can be turned into an opportunity. Two important questions that have arisen from this research will be opened-up for discussion during the session:</p> <p>What is the right balance between synchronous and asynchronous online learning and support and how these modes are best integrated with campus-based activities?</p> <p>What have we learned from alternative assessment design during the pandemic and how can we ensure that what has been learned is not lost?</p>

References

Almpanis, T. & Joseph-Richard, P. (2022) Lecturing from home: Exploring academics' experiences of remote teaching during a pandemic, *International Journal of Educational Research Open*, Volume 3, 2022, 100133, ISSN 2666-3740, <https://doi.org/10.1016/j.ijedro.2022.100133>

Baume, D. (2020). Assessment when conventional examinations are not possible. Centre for distance education, University of London. [https://london.ac.uk/sites/default/files/cde/assessment-when-conventional-exams-not-possible\\_SB\\_3%20%281%29.pdf](https://london.ac.uk/sites/default/files/cde/assessment-when-conventional-exams-not-possible_SB_3%20%281%29.pdf)

Hatzipanagos, S., Tait, A. & Amrane-Cooper, L. (2020). Towards a post Covid-19 digital authentic assessment practice: when radical changes enhance the student experience. *European distance e-learning network (EDEN) Proceedings 2020 Research workshop*, Lisbon, 21-23 October 2020

Laurillard, D. (2012). *Teaching as a Design Science: Building Pedagogical Patterns for Learning and Technology*. Routledge.

Yamagata-Lynch, L. (2014). Blending Online Asynchronous and Synchronous Learning. *International Review of Research in Open and Distributed Learning*, 15(2), 189–212. <https://doi.org/10.19173/irrodl.v15i2.1778>

Yang, B. & Huang, C. (2021). Turn crisis into opportunity in response to Covid-19: Experience from a Chinese University and future prospects. *Studies in Higher Education*, 46(1), 121-132. <https://doi.org/10.1080/03075079.2020.1859687>

Keywords	emergency remote teaching, academic practice, technology-enhanced learning
Theme	Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	<p>This paper will report on the findings from a study that aimed to explore home-working academics' experiences of remote teaching during the COVID-19 pandemic (Almpanis &amp; Joseph-Richard, 2022). This empirical research study took place against this backdrop and aimed to highlight the opportunities and challenges presented by remote teaching, as experienced by the participating academics.</p> <p>Ten academics working at five different UK universities participated in the research. In-depth, semi-structured interviews to collect data to obtain a rich description of the context of each participant were used. In line with the UKPSF areas of activity, the focus of the interviews was on the academics' experiences of designing and planning sessions; teaching and supporting learning; assessing and providing feedback; developing an effective learning environment and supporting students; and participating in continuous professional development (CPD). Concentrating on the five a priori areas – the five areas of activity specified in the UKPSF framework – allowed for a sharper focus on filtering data appropriate for consideration in framing and developing</p>

theoretical accounts. The recurring categories were labelled and organised into themes.

The themes that emerged were the following:

1. Swift, surface-level adaptation in designing and planning lessons.
2. Synchronous/asynchronous delivery of past materials using institutional resources.
3. An intense focus on exploiting new technological tools for implementing alternative online assessments.
4. Increased levels of support for the 'connected but disengaged' students.
5. The emergence of a 'learning' practitioner.

Considerations regarding online teaching in synchronous and/or asynchronous modes

The findings of this research have also highlighted that one of the main questions related to remote teaching is whether it should be conducted synchronously or asynchronously. The main advantage of synchronous remote learning is that participants can interact in real time. Through real-time discussion, synchronous interactions can facilitate the development of a sense of community and stronger connections between tutors, peers and the course material (Yamagata-Lynch, 2014). However, synchronous online learning via web-conferencing platforms requires a stable internet connection and availability at a scheduled time, imposing some level of inflexibility. This means that, when the potential of real-time conferencing for interactivity and community creation is not adequately harnessed, then this approach can become more taxing. This might be the case where synchronous online delivery approaches are adopted not because of their pedagogic benefits but because they might be closer to face-to-face delivery, or simply because of managerial and administrative pressures to provide the students with more contact time. This seemed to be the case among some research participants, who thought that all their timetabled sessions should be delivered synchronously, as that would offer greater "value for money" to their students.

Asynchronous online learning, in contrast, is truly flexible (Yang & Huang, 2021) and less technically demanding, as there is more freedom regarding the lesson time and more time for any connectivity issues to be resolved. Furthermore, asynchronous learning offers the potential for reflective learning through asynchronous discussion (Gibson, 2013); students can go over the content at their own pace and review it as necessary, prior to participating in the discussion. If learning activities are scaffolded purposefully according to learning design principles (Laurillard, 2012) then asynchronous approaches can provide a "low-tech, high-flex" solution to remote learning. The main limitation of this approach, if used on its own, might be the lack of a feeling on the parts of the students of belonging to a learning community.

The changing nature of assessments

The research findings indicate that there was an intensified focus on adapting assessment for online delivery. All participants spent a relatively large portion of their interview time discussing the many rapid changes they had made in their assessments. A possible reason for this is the timing with which the move to ERT happened in the UK. In March 2020 most lecturers were in the middle of their second semester of the 2020-21 academic year and it was critical for them to finish their teaching and run end-of-year assessments to protect students' progress or completion of their studies. Universities made targeted efforts to enable students to complete their courses as expected. This temporal point, in addition to the usual pressures of conducting a range of assessments, marking and moderating them, and giving feedback to students before the exam board, explain the excessive focus on assessment changes.

Some assessments were converted to an online format, when universities could meet the technical requirements; however, even when exams were delivered remotely, proctoring systems were not used by any research participant. Reasonable adjustments and accommodations to the particular circumstances of the students were reported. In some cases, the format of the exam changed to a seen exam and, in one case, the exam was cancelled and students were graded based on the coursework they had already submitted for that module. What is important to note here is that the wholesale adoption of technology was sudden and immediate. Institutions were guided both by an interest in finding a quick fix, and by a rational desire to exploit whichever tools were available to them. While this is understandable under the circumstances, moving forwards there is a need for institutions and academic teams to rethink assessment-design and academic-integrity issues (Baume, 2020; Hatzipanagos et al., 2020). The pre-recorded presentation will summarise the findings of this research with a focus on the considerations regarding online teaching in synchronous and/or asynchronous modes and on the changing nature of assessments.

Two questions that have arisen from this research will be opened-up for discussion during the conference:

What is the right balance between synchronous and asynchronous online learning and support and how these modes are best integrated with campus-based activities?

What have we learned from alternative assessment design during the pandemic and how can we ensure that what has been learned is not lost?

This session is relevant to the conference subtheme of 'Technology, pedagogy and assessment' and will be of interest to a range of audiences, including academics, managers and learning technologists.



Session Time

10:40 – 11:30



# APT 2022

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## Abstracts

<b>Title of Abstract:</b>	Organizational conditions and dynamics of digital teaching
Presenters (lead & co-presenters)	Len Ole Schäfer Bronwen Deacon, Melissa Laufer
Institution	FernUniversität in Hagen, Research Cluster D <sup>2</sup> L <sup>2</sup> „Digitalization, Diversity and Lifelong Learning. Consequences for Higher Education“
Format	Case study
Abstract	In the session, we will present the main findings of a case study of 8 European universities with a total of 68 interviews with academics (e.g. study program level, faculty level and top level). The aim of the study is to identify organizational conditions that promote and/or hinder the implementation of digital teaching at universities. The methodological part follows a qualitative research setting with qualitative interviews. The main results were that the organizational dimension can be broken down into leadership, digitalization experience and digitalization strategy, infrastructure and resources, networks, interaction of students and teachers. The interviewees reported that a curiosity-driven and talent oriented leadership style and an inspiring environment are crucial to foster digital teaching. Digitalization experience and digitalization strategies are key to the understanding of digital change at universities. Infrastructure and resources were an integral part of the organization in order to support digital teaching via didactic and competence centers. These centers bring together technical and human support structures. Internal and external networks as a central topic motivated the individuals with flat hierarchies and horizontal communication channels to implement digital teaching ideas. With regard to interaction of students and teachers the black tile problem arose and mental health issues came up.
References	Laufer, M., Deacon, B., & Schäfer, L. O. (in press). The Power of Informal Networks. How middle management, central leadership and trust can impact innovation at the university.

Keywords	Higher Education, organization, digital teaching
Theme	Inclusion and exclusion in the new normal, Building communities and networks
Session Description (Roundtable, workshops and Hackathons only)	<p>In our session, we will present the results of our case study research that is a joint cooperation project between the Research Cluster D<sup>2</sup>L<sup>2</sup> “Digitalization, Diversity and Lifelong Learning – Consequences for Higher Education” of the FernUniversität in Hagen, Germany and the research program “Knowledge and Society” at the Alexander von Humboldt Institute for Internet and Society. In this research project, we conducted 8 European case studies with a total amount of 68 interviews from three different leadership levels at universities (e.g. program level, faculty level and top level). The main research question we investigated was what organizational conditions drive and/or inhibit the implementation of digital teaching at universities. Our main results refer to five prominent research topics, namely leadership, digitalization experience and digitalization strategy, infrastructure and resources, networks and Interaction of students and teachers. Our research with regard to ‘Leadership’ indicates that university management (e.g. rectorate) as part of the top level leadership of the university play a significant role in steering the process of digital teaching. But teaching staff at lower levels of the hierarchy need a supportive environment that stimulates ideas and innovative experiments. This atmosphere is characteristic for highly motivated individuals who are driven by intrinsic motivation. Furthermore, a focus on talent development is crucial. Individuals need to invest their competencies and skills to ensure high quality teaching. The teaching praxis is nevertheless affected by resistance behavior that can be seen at the individual and institutional level. The individual reactions are, for example, fear of educational technology and the self confidence in a certain self perception, that is driven by traditional values of a presence university.</p> <p>A second major research result is the effect of digital experience and digitalization strategy on the implementation of digital teaching. A main result is that the individuals are unaware of their institutions’ digitalization strategies and lack of a common understanding of these strategies. The digitalization strategies and its applications are diverse and they are often disconnected from actual teaching practice. In our data, we see furthermore that digital experience in the form of digitalized courses and programs are an advantage for digital teaching. The organizational members develop knowledge about educational technologies and teaching styles. Our research indicates that the self-perception and identity of the university is a major contribution to digital teaching and drives digital teaching. In this regard, a general digital openness was mentioned. Last but not least there are universities that recruit top level leadership positions that are digital</p>

bridge builders between the academic and the public sphere. This means that there is an overlap between public and academic roles. This is an advantage because it stimulates synergies.

With regard to infrastructure and resources, interviewees reported that an advantage for digital teaching was the implementation of digital competence centers that combine technical advice and didactical recommendations. Moreover, a main topic was scarce resources at the mid-level of the university. The financial incentives are often project funded in a competitive environment. This has disadvantages as many individuals struggle for scarce resources. Our research also points into the direction that there are challenges with the organization and coordination of digital support. Furthermore, an interesting insight was that limited building capacities stimulate the will to implement digital teaching at universities. On the one hand, scarce resources have negative side effects, on the other hand it promotes digital teaching initiatives with the investment of human resources. Financially advanced cases had many human resources like e-teams and learning technologies in order to drive digital teaching. Our research data indicate that there is a major difference between IT-support and E-teams. While the IT-support is functionally focused on IT-networks, software and hardware, the e-teams are more driven by didactical approaches and committed to digital teaching. We were furthermore confronted with innovative resource structures: Our interview partners worked at institutions that established remote access and lent notebooks.

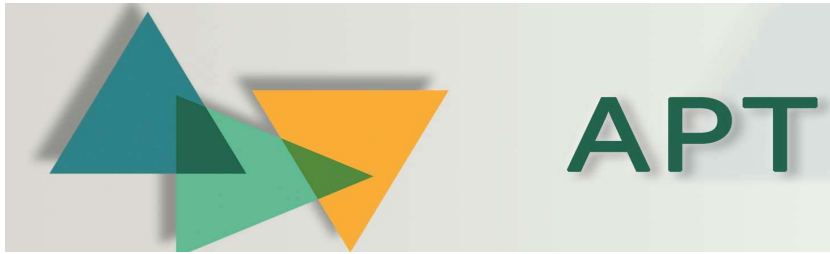
A major part of our respondents reported that they are organized in networks. These networks are collegial networks, that are built by individuals from the respective faculty and working within the same subject. As our data suggests, the middle management of the institutions plays a significant role in influencing these social networks. Nevertheless these networks are often composed of small groups and they are independent knowledge silos that share knowledge and accumulate digital competencies. Although these are decentralized initiatives, a centralization of resources is observable. Another aspect is that there are central initiatives from the central university administration that attempt to standardize respective informal know-how via a formalization of informal knowledge. The future will show if this will work in a broader setting of teaching initiatives. Our interview partner reported that ideas flow best, when they are communicated in a horizontal communication style (e.g. flat hierarchies). Furthermore, the support of the respective supervisors and his/her attitude promotes social exchange and information flow.

Our interview data shows that there is a challenge of social isolation in digital teaching rooms, because students tend to switch off their cameras. This is called the Black tile problem. Furthermore, a common challenge is that social isolation affects the mental health of students at the university and there is a need for structures that work against such

health developments and issues. Social exchange is a fundamental solution to overcome digital isolation.

Session Time

11:40 - 12:30



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## Abstracts

<b>Title of Abstract:</b>	Rethinking assessment and feedback in a digital age
Presenters (lead & co-presenters)	Sarah Knight
Institution	Jisc
Format	Workshop
Abstract	<p>This workshop will discuss the outcomes from a recent Jisc review and survey of the UK higher education assessment and feedback landscape and how a principle informed approach can drive effective practice supported by the use of technology.</p> <p>Through consultation with higher education organisations, and a review of the current literature, a new set of principles for assessment and feedback have been developed. The principles offer an actionable way to improve learning teaching and assessment and can be applied to any aspect of learning design underpinned by the effective application of technology. This workshop will offer participants the opportunity of reviewing the principles and how they might support their practice within their organisations.</p>
References	<p>Jisc (2022) Principles of good assessment and feedback available from <a href="https://www.jisc.ac.uk/guides/principles-of-good-assessment-and-feedback">https://www.jisc.ac.uk/guides/principles-of-good-assessment-and-feedback</a></p> <p>Jisc (2022) Assessment and feedback higher education landscape review: survey outcomes available from <a href="https://www.jisc.ac.uk/reports/assessment-and-feedback-higher-education-landscape-review-survey-outcomes">https://www.jisc.ac.uk/reports/assessment-and-feedback-higher-education-landscape-review-survey-outcomes</a></p>
Keywords	Assessment; feedback, digital, principles of assessment and feedback
Theme	Technology, pedagogy and assessment

Session Description  
(Roundtable,  
workshops and  
Hackathons only)

Digital transformation has occurred across the education sector over the last two years. Whether as an acceleration of a planned strategy or an emergency response, changing assessment practice has been a priority.

We have learned lessons about equity, about learning design and about interoperability. We have seen success stories and consistently high levels of student attainment. A move away from traditional unseen exams to other forms of assessment has seen many students, particularly those from disadvantaged backgrounds, perform better. Assessment is central to the educational process. Done well, it drives improvement, shapes student behaviour and provides accountability to employers and others. It can also be a source of dissatisfaction, frustration and anxiety. Does it assess the right things? Does it take place at the right points in the learning journey? Is it susceptible to cheating? Existing and emerging technologies are starting to play a role in changing assessment practice and could help address these issues. This workshop will discuss the outcomes from a recent Jisc review and survey of the UK higher education assessment and feedback landscape and how a principle informed approach can drive effective practice supported by the use of technology.

The challenges and issues raised through the Jisc survey of the higher education assessment and feedback landscape informed the development of new guidance for higher education organisations. Assessment and feedback practice has been on a trajectory away from assessment of learning to what is termed assessment for learning. Key to this has been helping students monitor and regulate their own learning and trying to ensure that any feedback activity feeds forward leading to future improvement. Current assessment practice increasingly includes activities that could be termed assessment as learning. The very act of undertaking assessment and feedback activities is an essential part of the learning process. All three aspects of assessment still need to happen but we are thinking differently about the relationship between them.

- Assessment of learning describes the institutional quality assurance processes that lead to students acquiring some form of verified credential.
- Assessment for learning is the overall learning design, ensuring we are assessing the right things at the right time with plenty of formative opportunities to feed forward. This is the cog wheel making everything revolve.
- Assessment as learning is the lived experience of what all that feels like if it is working well. Tasks appear relevant, students can see what they have gained by undertaking the activity, they feel involved in a dialogue about standards and evidence and the continuous development approach helps with issues of stress and workload for staff and students.

Through consultation with higher education organisations, and a review of the current literature, a new set of principles for assessment and feedback have been developed. The principles offer an actionable way to improve learning teaching and assessment and can be applied to any aspect of learning design underpinned by the effective application of technology. Our 2021 principles of good assessment and feedback reflect the prominence of issues such as accessibility and inclusivity in current thinking. Where we continue to champion examples of good practice that were recognised some time ago, it is with a new perspective on why and how certain approaches are more effective than others. Relating these principles to practice and exploring the role technology plays in supporting these principles is explored in the Jisc guide 'Principles for good assessment and feedback' available online: <https://www.jisc.ac.uk/guides/principles-of-good-assessment-and-feedback>

This workshop will offer participants the opportunity of reviewing the principles and how they might support their practice within their organisations.

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Session Time

11:40 - 12:30





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## Abstracts

<b>Title of Abstract:</b>	Tackling Misogyny and Gender Based Violence: Developing a cross collaborative approach at UCL Medical School
Presenters (lead & co-presenters)	Rima Chakrabarti William Braithwaite, Emer Daly, Beth Hayes, Moni Sandhu, Natalia Zernicka-Glover
Institution	UCL Medical School
Format	Research paper or work in progress
Abstract	Increasingly, several higher education institutions, including UCL Medical School (UCLMS) have been challenged on their role in normalising androcentric practice, misogyny and Gender Based Violence (GBV). As part of their response, UCLMS published its inaugural strategic plan in August 2021, focusing on two key aspects; creating 'open discussions' and 'raising concerns'. While multiple stakeholders were involved; the Student Equality, Diversity and Inclusion (EDI) Committee were vital for ensuring that the response remained student-centred, with a key aspect involving the creation of the Women and Non-binary Students' network. By focusing on the central issues pertaining to gender bias in medicine, this network has provided an alternative platform to for an intersectional exploration of diversity and inclusivity within medicine. This has included using social media, infographics and hybrid events in a 'Question Time' format involving an expert panel. By harnessing the latest technologies, this network has provided a mechanism for empowering students to gain awareness of the impact of gender bias on both clinicians and patients alike. Such discussions are vital to challenge the misogynistic cultures that continue to prevail in the clinical environment and medical research despite a predominantly female orientated workforce.
References	Universities. 2017. Available from <a href="https://strathprints.strath.ac.uk/61168/1/Donaldson_etal_GBV_2017_Preventing_gender_based_violence_in_UK_universities.pdf">https://strathprints.strath.ac.uk/61168/1/Donaldson_etal_GBV_2017_Preventing_gender_based_violence_in_UK_universities.pdf</a> Accessed 3rd April 2022.

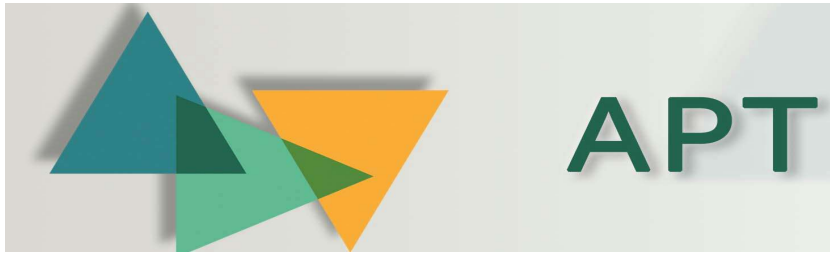
	<p>2 Bondestam F, Lundqvist M. Sexual harassment in higher education – a systematic review. <i>European Journal of Higher Education</i>. 2020; 10:4, 397-419. Available from DOI: 10.1080/21568235.2020.1729833. Accessed 7th April 2022</p> <p>3Pew Research Center. Defining Generations: Where Millennials end and Generation Z begins. Available from <a href="https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/">https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/</a> Accessed 6th April 2022</p> <p>4 British Medical Association (BMA) Sexism in medicine. 2021. Available from <a href="https://www.bma.org.uk/media/4487/sexism-in-medicine-bma-report.pdf">https://www.bma.org.uk/media/4487/sexism-in-medicine-bma-report.pdf</a> Accessed 6th April 2022.</p>
Keywords	<p>Misogyny  Gender Based Violence  Undergraduate Medical Training  UCL Medical School  Women and Non-binary Students’ network</p>
Theme	<p>Inclusion and exclusion in the new normal, Building communities and networks, Technology, pedagogy and assessment</p>
Session Description (Roundtable, workshops and Hackathons only)	<p>While there is increasing recognition that a transparent and succinct strategy is required for tackling misogyny and GBV, presently the literature appears to be lacking on how this should be addressed and sustained by Higher Education Institutions (HEIs)<sup>1, 2</sup>. Therefore, we propose Format A: discussion of a work in progress, to showcase the development and implementation of the strategic plan and the Women and Non-binary Students’ network for tackling androcentric practice, misogyny and GBV at UCL Medical School.</p> <p>One of the key objectives of the discussion will be to highlight how the cross-collaborative approach between faculty and the student EDI Committee was established. Building this community and establishing clear lines of communication was crucial for ensuring that the student voice guided the development of the learning events implemented in the strategic plan. Grounding pedagogical principles further ensured that the learning events were aligned to the undergraduate medical curriculum and this was achieved by a combination of synchronous and asynchronous sessions, including a mix of faculty and peer-led workshops across all years of the undergraduate programme. However, we were aware that this approach would not target all students and that providing information through an alternative platform was essential. With social media increasingly used for information sharing among ‘Generation Z’, identifying how this could be positively used to highlight key issues pertaining to Misogyny and GBV was vital<sup>3</sup>. Embracing the opportunities afforded by the latest technology will be</p>

explored further in the discussion and will focus on the initiatives developed by UCLMS to highlight the 'Raising Concerns' process and various EDI events.

Through the discussion, we will also outline the steps in creating a safe and collaborative forum, a way of ensuring inclusion in the new normal through the establishment of the Women and Non-binary Student's network at the Medical School. This network has been vital in creating a community to discuss issues pertaining to gender bias in healthcare. This has included providing infographics on topics such as diagnosing neurodivergence in females and most recently, the mesh controversy. However, its events have been one of the most successful, and innovative, in stimulating open discussions on complex issues such as abortion, sexual health and women in medicine. Adapted from the 'Question Time' format, students and staff have the opportunity to pose questions to the expert panel, comprised of guest speakers from both within and outside of UCL. These hybrid events have been positively received, with attendees highlighting how it has encouraged them to discuss complex issues within a safe and relaxed environment. With a recent survey identifying how sexism continues to propagate within the medical profession<sup>4</sup>, implementing a targeted and cross-collaborative approach tackling such issues is vital within undergraduate training. While we appreciate that we are presenting the specific response of UCLMS in leading this response, we recognise that tackling Misogyny and GBV continue to be core societal issues. By showcasing our work as a 'work in progress', our objective is to highlight the need for this response to remain dynamic, and to evolving and adapt to societal and cultural shifts. Therefore, exploring potential avenues and how these initiatives can be adapted across HEIs is vital and will form the basis of the follow up activity. At this point, we plan to incorporate small-group work where we will ask delegates to discuss their perceptions of Misogyny and GBV and how this can be addressed within their scope of practice. By opening the floor to delegates, the aim is to stimulate discourse and also identify potential initiatives that can be applied across disciplines and between different faculties. We strongly believe promoting this work undertaken by UCLMS is imperative and also aligns to the

Session Time

10:40 – 11:30



# APT 2022

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 Imperial College London and University College London.

## Abstracts

<b>Title of Abstract:</b>	Tackling the Online Student Engagement Dilemma through Virtual 3D Spaces
<b>Presenters (lead &amp; co-presenters)</b>	Paul Tuck Olivia Yiqun Sun, Na Li
<b>Institution</b>	Xi'an Jiaotong - Liverpool University
<b>Format</b>	Field report
<b>Abstract</b>	The pivot to online learning and remote teaching has created challenges for student engagement and connectivity. Creating an enjoyable and authentic online learning environment can help promote student interaction, increase motivation and enhance the feeling of proximity. In this session, we will introduce how 3D spaces and technologies have been designed and used to create broader opportunities for students to participate and learn. Specifically, using H5P, Mozilla Hubs, and simulation games to construct engaging online experiences through an academic poster conference, a virtual language lab, and a 3D computer assembly workshop. In this interactive session, participants will have an opportunity to experience and interact with these virtual environments and learn how they have been used in real cases to engage students in a transnational English-medium university in China.
<b>References</b>	<ul style="list-style-type: none"> <li>• Dixon, M. (2015). Measuring Student Engagement in the Online Course: The Online Student Engagement Scale (OSE). <i>Online Learning</i>, 19(4). doi: 10.24059/olj.v19i4.561</li> <li>• Garrison, R., Anderson, T., &amp; Archer, W. (1999). Critical Inquiry in a Text-Based Environment. <i>The Internet and Higher Education</i>, 2(2-3), 87–105. doi: 10.1016/S1096-7516(00)00016-6</li> <li>• Reisoğlu, I; Topu, B.; Yılmaz, R. Karakuş, Yılmaz, T. &amp; Göktaş, Y. (2017). 3D virtual learning environments in education: a meta-review. <i>Asia Pacific Education Review</i>, 18, pp. 81–100. doi: 10.1007/s12564-016-9467-0</li> <li>• Rizvi, Y.S. and Nabi, A. (2021). Transformation of learning from real to virtual: an exploratory-descriptive analysis of issues and</li> </ul>

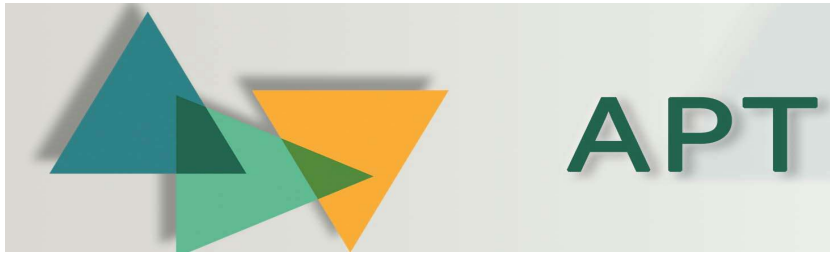
	<p>challenges. <i>Journal of Research in Innovative Teaching &amp; Learning</i>, 14(1), 5-17. doi: 10.1108/JRIT-10-2020-0052</p> <ul style="list-style-type: none"> <li>• Yuan, J., &amp; Kim, C. (2014). Guidelines for facilitating the development of learning communities in online courses. <i>Journal of Computer Assisted Learning</i>, 30(3), 220-232.</li> </ul>
Keywords	student engagement, blended and online learning, H5P, Virtual 3D spaces
Theme	The promise of current and emerging technologies in shaping the university of the future
Session Description (Roundtable, workshops and Hackathons only)	<p>In this session, the presenters will discuss how virtual online 3D spaces have been used in various scenarios to enhance teaching and learning at a transnational university in China. Active student engagement is a fundamental component of student learning, particularly in distance education where students can often become frustrated and detached from their online courses. Dixson (2015) defines student engagement as the degree to which students actively participate by “thinking, talking, and interacting with the content of a course, the other students in the course, and the instructor”. It is thus a crucial factor in maintaining close connection to their university education and correspondingly to their overall learning and development. In addition, feelings of anxiety and isolation among students have been identified as a major challenge for online learning experiences (Yuan &amp; Kim, 2014). The need to mitigate these feelings and foster a more engaging online learning environment has become ever more important due to the impact of the pandemic (Rizvi &amp; Nabi, 2021).</p> <p>The Community of Inquiry (CoI) framework identifies three elements needed to construct an engaging online learning experience: cognitive presence (CP), social presence (SP), and teaching presence (TP) (Garrison et al., 1999). The use of virtual online 3D spaces and metaverse technologies can enhance all three of these core elements by constructing authentic spaces for students to interact and engage with peers, instructors, and learning content. Gamification concepts such as avatars and 3D characters can represent students’ genuine social presence. They are able to communicate with the instructor and one another through audio and text-based chat with emojis (Reisoğlu et al., 2017) in a manner that resembles online multiplayer role-playing games. Multimedia resources such as images, audio and video can easily be added to the space for students to locate and interact with, helping them feel more personally empowered in the learning process and thus enhance their motivation and fulfilment.</p> <p>The structure of the session will be as follows. The presenters will first introduce the context of this project, namely the institution, the teacher and student population, the teaching and learning environment and challenges, and the theoretical frameworks used to construct the 3D online learning spaces. Next, details about the construction process,</p>

i.e. the selection and use of technologies, and the challenges we faced will be discussed. Three examples will be provided: a 3D academic poster conference using H5P, an online language lab in Mozilla Hubs, and a virtual demonstration of computer architecture and assembly with PC Building Simulator. The effectiveness of these online learning environments will be evaluated and discussed through the lens of the CoI framework. Methods for measuring online engagement, such as attendance tracking, student self-reporting and behavioural analytics, will also be discussed. Then, participants will have an opportunity to experience and interact with these virtual environments and learn how they have been used in real learning scenarios to engage students in their online university education. Finally, lessons learned and practical tips will be shared to help colleagues adopt this approach in their teaching. There will also be an opportunity for Q&A at the end of the session.

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Session Time

13:30 - 14:20



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## Abstracts

<b>Title of Abstract:</b>	The Conceptual Framework of Designing a Mobile-supported Continuous Professional Development Programme for Primary School Teachers in Sindh, Pakistan
Presenters (lead & co-presenters)	Ali Gohar Qazi Dr Fredrick Japhet Mtenzi
Institution	UCL Institute of Education, London & The Aga Khan University - Institute for Educational Development, Karachi
Format	Research paper or work in progress
Abstract	<p>This study explores learning design frameworks and strategies in an effort to inform the development of a mobile-supported continuous professional development (CPD) programme that offers mathematics primary school teachers the possibility to access CPD opportunities - 24/7 – anywhere-anytime using mobile technology. In particular, this study presents and describes a contextually relevant, theory-led, and evidence-informed conceptual framework for a mobile-based learning environment, supporting various pedagogical/andragogic approaches and instructional design, afforded by mobile technology. For instance, the mobile-supported CPD is underpinned and supported by robust, principled theoretical frameworks, such as - Integrative Learning Design Framework (ILDF), RASE model, Eclectic Pedagogical model, and Keller’s ARCS model, so as to enact best practices whilst catering several structural factors and design requirements for meaningful learning experiences for teachers. This new and substantially different paradigm of mobile-supported CPD is expected to not only responds to increasingly changing and challenging times – since teachers are working from their homes - their professional development growth does not need to be put on hold - but will also solve the problems of current CPD provision in Pakistan. This new paradigm will provide teachers with tools, strategies, and opportunities to interact, explore, and engage in real-time, collaborative, content-focused, coherent, active, and sustained PD activities, resulting in improving teaching practice and efficacious approach to ongoing CPD provision in developing countries contexts.</p>

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[1] Mayer, R.E., Where is the learning in mobile technologies for learning? *Contemporary Educational Psychology*, 2020. 60: p. 101824.

[2] Gunter, G.A. and J.L. Reeves, Online professional development embedded with mobile learning: An examination of teachers' attitudes, engagement and dispositions. *British Journal of Educational Technology*, 2017. 48(6): p. 1305-1317.

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[4] Grant, M.M., Difficulties in defining mobile learning: Analysis, design characteristics, and implications. *Educational Technology Research and Development*, 2019. 67(2): p. 361-388.

[5] Naciri, A., et al., Mobile learning in Higher education: Unavoidable alternative during COVID-19. *Aquademia*, 2020. 4(1): p. ep20016.

[6] Danish, J. and C.E. Hmelo-Silver, On activities and affordances for mobile learning. *Contemporary Educational Psychology*, 2020. 60: p. 101829.

[7] Pishtari, G. and M.J. Rodríguez-Triana, An analysis of Mobile learning tools in terms of pedagogical affordances and support to the learning activity life cycle, in *Hybrid learning spaces*. 2022, Springer. p. 167-183.

[8] Hall, T., et al., Education in precarious times: a comparative study across six countries to identify design priorities for mobile learning in a pandemic. *Information and Learning Sciences*, 2020.

Keywords

Mobile learning, continuous professional development, framework, mobile learning environment, professional competence, Technology-infused training

Theme

Building communities and networks, Technology, pedagogy and assessment

Session Description  
(Roundtable,  
workshops and  
Hackathons only)

Over the last decade, the rapid proliferation of mobile technologies – including, smartphones phones, tablets, and other handheld devices, has opened up new avenues and possibilities to extend and enhance learning and education delivery - at all levels, including teacher professional development [1, 2]. As a result, these new advances in technology-mediated approaches have created new opportunities for the development and discourse of design-based understanding for creating an inclusive, engaging pedagogy - embedded in technology-rich environments [3, 4]. For instance, Mobile learning (m-learning) is an emerging trend and has assumed even greater importance amidst the COVID-19 pandemic where the education and training provision has predominantly relied on the use of portable digital technology while maintaining a physical distance [5]. Although these mobile/portable technologies provide greater affordances [6] and capabilities to deliver education and training in a contextualized, personalized, and unrestricted physical/geographical manner; however, they have often been matched with a more nuanced understanding of a design for



effective learning in a technology-rich environment [7, 8]. Therefore, it is crucial that how technology-infused (in our case mobile-based) professional development programmes can be designed to better facilitate teachers, who seek to develop their professional competence and at the same time stay connected with peers for better interaction and collaboration. And that professional development can fit with teachers' busy schedules, be available across geographical areas, and provide real-time, ongoing, job-embedded support for teachers. Thus, this session aims to provide participants with fresh perspectives on the ways and conceptual framing of developing teachers' professional practice using mobile learning technology. More specifically, it will allow participants to engage with, and learn from, the knowledge and experience of the researcher, question their assumptions and deepen their understanding of how to capitalize on knowledge development by enacting innovative approaches and sound pedagogical/andragogic models - aligned with the features of the mobile delivery systems. Hence, by attending this session, participants will be able to get oriented to the key design considerations underpinned by pedagogical approaches to the mobile-enabled CPD programme for teachers; consider how they could foster the development of innovative technology-enabled education programmes in their own contexts.

Session Time

11:40 - 12:30



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## Abstracts

<b>Title of Abstract:</b>	The Intercultural Communication Skills (ICC) project and assessment design
Presenters (lead & co-presenters)	Silvia Colaiacomo Amy Lourenco, Lina Kamenova, Zsofia Varga, Weili Zhai, Maise Amusatogui
Institution	UCL
Format	Workshop
Abstract	<p>The intercultural communication skills (ICC) project aims to bring together different areas of the university (academics, students and professional services) to identify good practice and a common framework to develop intercultural awareness and communication at UCL. The workshop we propose explores inclusive approaches to assessment practice by engaging critically with traditional and broadly used assessment types and the cultural assumptions and constructions that may underpin them. The workshop will support participants' reflection on how to make assessment more inclusive and how to unpack and develop assessment literacy for diverse student cohorts. We will work with different assessment tasks and consider the inclusivity and approachability of briefs and criteria from the perspective of students coming from different backgrounds. We will also reflect on the emotional impact of preparing for high stake assessments and the benefits of enhancing transferrable skills and employability through differentiated assessment tasks. We will also critically evaluate how technology influence students' perception of assessment and how the emotional impact of assessment has been exacerbated during the Covid pandemic. The workshop will be co-run by UCL staff and students collaborating on the ICC project.</p>
References	<p>- Banks, J. A. (2013). The construction and historical development of multicultural education, 1962–2012. <i>Theory into Practice</i>, 52(1), 73–82.</p> <p>- Curdt-Christiansen, X. L., Hua, Z., &amp; Wei, L. (2021). Introduction: The changing faces of transnational communities in Britain. <i>International Journal of the Sociology of Language</i>, 2021 (269), 3-13. doi:10.1515/ijsl-2021-0030</p> <p>- Morris, C., Milton, E. and Goldstone, R. (2019) Case study:</p>

	<p>suggesting choice: inclusive assessment processes, Higher Education Pedagogies, 4:1, 435-447, DOI: 10.1080/23752696.2019.1669479 - Spiteri, D. (2017), Multiculturalism, Higher Education and Intercultural Communication, New York: Palgrave MacMillan</p>
Keywords	<p>Assessment, intercultural communication, inclusivity, internationalisation</p>
Theme	<p>Inclusion and exclusion in the new normal, Building communities and networks, Technology, pedagogy and assessment</p>
Session Description (Roundtable, workshops and Hackathons only)	<p>The workshop will explore possible biases and challenges of commonly used assessment types for a diverse student population. The session closely aligns with a number of sub-themes of this year's APT conference, including a focus on building new communities and using technology to support inclusion in relation to assessment types. The session will present some of the data collected by students as part of the UCL ICC project and will move on to consider case studies and exemplar of practice.</p> <p>The session will be interactive and participants will be asked to contribute and share examples of their own practice.</p> <p>The presenters are all members of the ICC project team, comprising UCL Arena, faculty staff, UCL Careers, Student Support and Wellbeing and 3 students representatives.</p>
Session Time	<p>10:40 – 11:30</p>



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## Abstracts

<b>Title of Abstract:</b>	Transitionism: Towards a New Utopia?
Presenters (lead & co-presenters)	Dominic Pates Julian Bream
Institution	City, University of London
Format	Hackathon
Abstract	<p>Our present can, at times, feel overwhelming and only headed in the wrong direction. Our future, however, remains unwritten - it will shape us or be shaped by us.</p> <p>Transitionism is a belief in the possibility of something better. It provides hope and a counter to the despair of an ever darkening present. Converging across three domains - the digital revolution, the climate crisis, inequity and social justice - transitionism provides a direction of travel for alternative futures.</p> <p>This session introduces and explains the notion of transitionism and asks delegates to consider how it might be applied within academic practice in higher education. Via paired and small group discussions, delegates will be encouraged to reflect on their own agency in effecting positive change in their institutions and within our sectors. The session will result in the generation of sets of ideas for making the digital transformation of our institutions net positive events and for making the future of higher education greener and more just than it is today.</p>
References	<p>Bayne, S., Evans, P., Ewins, R., Knox, J., Lamb, J., Macleod, H. (2020). The Manifesto for Teaching Online. The MIT Press, Cambridge.</p> <p>Figueres, C., Rivett-Carnac, T. (2020). The Future We Choose: Surviving the Climate Crisis. Manilla Press, London.</p> <p>Santos, B. (2020). Negationism, Gattopardism and Transitionism. Other News. <a href="https://www.other-news.info/negationism-gattopardism-and-transitionism/">https://www.other-news.info/negationism-gattopardism-and-transitionism/</a> (Retrieved May 11, 2022)</p> <p>Thew, H., Graves, C., Reay, D., Smith, S., Petersen, K., Bomberg, E., Boxley, S., Causley, J., Congreve, A., Cross, I., Dunk, R., Dunlop, L., Facer, K., Gamage, K. A. A., Greenhalgh, C., Greig, A., Kiamba, L., Kinakh, V.,</p>

	<p>Kioupi, V., Lee, M., Klapper, R., Kurul, E., Marshall-Cook, J., McGivern, A., Mörk, J., Nijman, V., O'Brien, J., Preist, C., Price, E., Samangooei, M., Schrod, F., Sharmina, M., Toney, J., Walsh, C., Walsh, T., Wood, R. Wood, P., and Worsfold, N.T. (2021). Mainstreaming climate education in Higher Education Institutions. COP26 Universities Network Working Paper.</p>
Keywords	<p>climate change, climate crisis, climate emergency, equity, justice, social justice, technology, digital, higher education, transitionism</p>
Theme	<p>Inclusion and exclusion in the new normal, Building communities and networks, The promise of current and emerging technologies in shaping the university of the future, Technology, pedagogy and assessment</p>
Session Description (Roundtable, workshops and Hackathons only)	<p>From rampant wild fires and continental heat domes to glacial melting and the now annual flooding of major cities, the impact that humans are increasingly having on the biosphere as we release more and more greenhouse gases into it is becoming ever more alarming. The pace of change of the digital revolution can be exhausting for anyone trying to keep up with it, with workplace employee monitoring software, online proctoring systems and algorithmic bias some of the recent troubling and negative twists in the tale of the unfolding information society, and the 'Fourth Industrial Revolution' (4IR) supposedly just around the corner to bring more paradigmatic change. The COVID-19 pandemic has shone a spotlight on the existing inequalities such as racial and gender injustices that have long blighted our societies, and in many ways, exacerbated them, but many of these also remain as the unaddressed legacies of systems such as colonialism and patriarchy. This year has even seen the return of a major European land war, with the Russian invasion of Ukraine. If we look around at the state of the world in 2022, it is not difficult to feel despair.</p> <p>Writing on the climate crisis, Figueres and Rivett-Carnac (2020) propose that '...we have two choices for our future, which is still unwritten. It will be shaped by who we choose to be right now'. That choice is essentially between business-as-usual or of building a better future. Enter transitionism. Santos (2020) describes transitionism as 'an overturning of things from dystopia to utopia, and utopia by its very definition is not a destination but a destiny'. Transitionism looks at the world via the lenses of three distinct but overlapping domains and sees a system of continuous transitions from one form into another, endlessly moving towards that better future. Individual actions alone may not change the world by themselves, but the aggregation of those individual and small group actions can collectively make the avalanche, the sea change, the tectonic shift that is needed to build the momentum and ultimately change the trajectory for us all.</p> <p>Unprecedented changes across all sectors of society and the economy will be required to achieve national goals of reaching net-zero greenhouse gas emissions by 2050. 4IR suggests profound and systemic changes anyway, if trends in technologies such as artificial intelligence, automation, robotics and the Internet of Things are likely to achieve</p>

widespread adoption in ways like the personal computer, the World Wide Web and the smartphone already have done. If these two major shifts are not approached to be just transitions, we will only perpetuate and reinforce existing inequalities and injustices, missing the rare opportunity to actually make a better world while it is changing rapidly anyway.

What does all this have to do with teaching and learning with technology, or academic practice in higher education? It is the sphere within which we all work, teach, learn and connect, so is where we must look to start (or continue) with building something better. We can start to effect positive change first within our own spheres of influence before it can ripple out to become something wider. Thew et al (2021) propose mainstreaming climate change education (CCE) across all learning activities in Higher Education Institutions (HEIs), embedding interdisciplinarity to ensure that HEIs can harness all the expertise they have to offer, developing learning outcomes for CCE that reflect factors such as the scale, urgency, causes and consequences of climate change, and embracing pedagogical approaches to teaching CCE that enable learners to engage with climate matters as real-world problems, such as through experiential learning. In 'The Manifesto for Teaching Online', Bayne et al (2020) seek to push back against framing of 'impoverished techno-corporate futures for education', the extents to which traditional higher education teaching has so often failed to effectively account for digital methods and the over-privileging of on-campus teaching. Their manifesto articulates that new, creative and highly engaging ways of teaching can be opened up by being online. Furthermore, in the past few years, our institutions have also seen a profusion of issues around factors such as decolonising the curriculum, digital accessibility, or generally looking to create better environments for equality, diversity and inclusiveness. Collectively, these hint at some ways to begin or continue to become a transitionist actor, but there will be many, many more ideas and actions.

The session itself should therefore relate to all four sub themes of this conference, in generating ideas around inclusion and exclusion, building or leveraging communities and networks, the promise and challenge of current and emerging technologies, and general issues or questions around technology, pedagogy and assessment. The aim of this session is for delegates to leave feeling that they can do something towards making a better world. We will look to achieve that via a series of discussion and reflection activities - small group, paired, individual - framed via the notion of transitionism. We hope that you will leave the session feeling empowered and inspired. Perhaps in 2023, you can come back and tell us what you did.

Session Time

13:30 – 14:20



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## Abstracts

<b>Title of Abstract:</b>	Understanding university students' technology acceptance of the in-class quiz (JazzQuiz): a case study in China
Presenters (lead & co-presenters)	Na Li Yue Li; Erick Purwanto
Institution	Xi'an Jiaotong-Liverpool University
Format	Research paper or work in progress
Abstract	<p>The COVID-19 pandemic has accelerated the educational transition from traditional low-tech lecturing to high-tech hybrid learning that mixes online and onsite education. Literature has shown rich scientific evidence that understanding students' technology acceptance is the premise for university decision-makers to make practical strategies and drive effective student-centred digital transformation for inclusive and sustainable future education. Our research examines factors that might influence student intentions toward using the Moodle-based in-class quiz activity (JazzQuiz) to facilitate online formative assessment in Computer Science and English Language classes with over 1400 undergraduate students at a Sino-British international university in China. These students are diverse in nationalities, gender, age, major, and learning experiences. The Unified Theory of Acceptance and Use of Technology (UTAUT) model was adapted as the core theoretical framework for this study. Quantitative data was collected from the self-reported online questionnaire with a random sampling strategy on a volunteer basis, while the interview questions were developed based on the quantitative data analysis results to explore the in-depth mechanism. The preliminary findings from the quantitative analysis contribute to further development with the qualitative data analysis. This study contributes to the literature by providing empirical evidence from a Chinese context during the pandemic disruption.</p>
References	Granic, A., & Marangunic, N. (2019). Technology acceptance model in educational context: A systematic literature review. <i>British Journal of Educational Technology</i> , 50(5), 2572–2593. <a href="https://doi.org/10.1111/bjet.12864">https://doi.org/10.1111/bjet.12864</a>

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Keywords	In-class quiz, formative assessment, hybrid learning, technology acceptance, student engagement, Moodle, JazzQuiz, higher education, China
Theme	Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	<p>This presentation will first introduce the grand challenges of promoting the effective educational transition from the teacher-centred face-to-face classroom delivery to the student-centred interactive online or hybrid learning and teaching worldwide. The COVID-19 pandemic has caused massive disruption in higher education and brought extra challenges for university teachers to provide inclusive and sustainable in-class interactions with students from an online or hybrid learning environment (Greener, 2020). Rapid advances in mobile technology and game-based student response systems (GSRS), supported by a "bring your own device" model, increase student engagement, motivation, attention, and performance while reducing test anxiety levels. Researchers have investigated the educational practices with the GSRS technologies and found that their effect on learning retention is still limited for unclear reasons (Holbrey, 2020). Technology acceptance models have been considered an effective tool to examine factors that might influence users' intentions and behaviours toward learning technologies (Granic' et al., 2019; Li et al., 2021), which has inspired the research team to further test the model's applicability in a Chinese context with international students. This presentation will explain the rationale of a mixed-method research design for a case study in a Sino-British international university in China. Before the pandemic disruption, an open-sourced Moodle plugin named "JazzQuiz" was integrated into the university virtual learning environment (VLE) but</p>



had minimal usage. The technology was designed to enhance student engagement for synchronous learning and provide multiple-choice polling, open-ended question response, and customized in-class quiz questions to facilitate formative assessment. To enhance the functionality, the research team supervised master's students majoring in computer science to customize new features according to the needs analysis, such as the word cloud visualization and quiz report export. The updated codes were shared with the Moodle open source community for sustainable development. Teachers can set up the quiz questions before the class and add them to a JazzQuiz activity. Students can then join an activity session, after login into the VLE, thus ensuring the authenticity and data privacy of the students. In an online learning environment, this usually works best combined with the screen sharing technology such as one supported by Zoom, Microsoft Teams, or BigBlueButton. Teachers can set up instantaneous polling questions as well. . To further investigate the factors that might influence students' adoption of this technology, the research team selected two modules with a large group of students diverse in nationalities, gender, age, major, and learning experiences. The Computer Science module includes 345 year-two undergraduate students, while the English Language module has 1,110 registered year-two undergraduate students who majored in different disciplines. The Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkatesh et al., 2003) has been widely used in higher education literature to study the acceptance of various technologies, such as the social media and VLEs. The original UTAUT model consists of six primary constructs: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioural Intention, and Usage Behaviour. Venkatesh et al. (2012) then proposed UTAUT2 with three extended constructs: Hedonic Motivation, Price Value, and Habit. The research team adapted the UTAUT2 model as the theoretical framework to guide the questionnaire instrument development and the semi-structured interview question development, which will be discussed in the presentation. An online questionnaire with five demographic questions, 42 Likert scales (5-point) questions, and several open-ended questions was distributed to the two groups of students in April and May 2022. The questionnaire covers all the primary constructs and several extended constructs considering the context of technology-enhanced education, including Instructor Support, Student Engagement, Self-efficacy, and Anxiety. The preliminary finding will be analysed through the Structural Equation Modelling (SEM) to examine the factor structure and relationships. Finally, practical implications and future development will be discussed, including the interactive Q&A.

Session Time

11:40 – 12:30



# APT 2022

20<sup>th</sup> Academic Practice and Technology Conference (APT2022)

Friday 1<sup>st</sup> July 2022

Institute of Education, UCL, 20 Bedford Way, Room W3.01

Co-hosted by the London School of Economics & Political Science,

Imperial College London and University College London.

## Abstracts

<b>Title of Abstract:</b>	Using automated programming assessment systems to create flipped classrooms and redesign assessments
Presenters (lead & co-presenters)	Masoud Seifikar
Institution	Imperial College, London
Format	Research paper or work in progress
Abstract	<p>A postgraduate MATLAB course has been designed based on blended learning and flipped classroom approaches, at the Physics department, Imperial College London. Students carried out some activities and finished an assessed exercise before attending each lecture. The lectures then focused on elaborating the pre-lecture materials, introducing some new topics, and answering students' questions, followed by working on assessed exercises. All the formative and summative assessments in this course were carried out using MATLAB grader that was integrated onto Blackboard platform. 90 percent of the final mark came from the pre-lecture and post-lecture exercises, while the rest was based on the final assessments submitted on Blackboard. Student feedback has been carefully analysed to identify successful and unsuccessful components of the course. End-of-course survey shows that most students found pre-lecture activities and exercises very useful to enhance their understanding, and MATLAB grader a very effective tool to provide immediate feedback on their submissions.</p>
References	<p>[1] CAST (2018). Universal Design for Learning Guidelines version 2.2. [2] Krentler, K.A. and Willis-Flurry, L.A., Journal of Education for Business, (2005) 80(6), pp.316-321. [3] Bhute, Vijesh J., et al. Education for Chemical Engineers 39 (2022): 58-66.</p>
Keywords	
Theme	Technology, pedagogy and assessment

Session Description  
(Roundtable,  
workshops and  
Hackathons only)

Learners differ widely in the ways in which they can be engaged or motivated to learn, in the ways that they perceive and comprehend information, and in ways that they can navigate a learning environment and express what they know. Previous studies have shown three UDL principles to address learner differences and variability: we need to provide multiple means of (1) representation, (2) action, and (3) engagement in our teaching [1]. The pandemic provided us with an opportunity to start using a wide range of tools and applications to improve students' engagement and enhance their learning. It has been shown that the incorporation of technology in the classroom enhances actual student learning and that this relationship is moderated by student characteristics [2]. The use of technology also enables learning relevant skills for students' future careers [3].

In this study, we tried to apply the UDL principles by providing alternative means for response and navigation, options for organisational methods and approaches, and multiple entry points to a lesson and optional pathways through content. Some aspects of the asynchronous learning which was implemented during the pandemic were advantageous in terms of the principles of the UDL: they allow students to access educational material, including assessments, at times that are convenient for them. In this project, we used MATLAB Grader as an automated programming assessment system in a hybrid learning environment to support creating a blended learning environment and flipped learning classroom. This tool can be used for both formative and summative assessments to help lecturers, but also to provide quick feedback and reflection for students. We then tried to understand the impact of using such tools on student outcomes.

We have recently designed and delivered a flipped classroom MATLAB course. This course is part of the Research Skills module being delivered to MSc Physics students at Imperial College London. The course was delivered during 7 weeks, in the second term of 2021-2022, and 51 students were enrolled in this course. This course consists of 9 lectures, where the first 2 lectures were delivered in-person in a computing room, and the rest were delivered online on MS Teams.

Before each session, students went through some self-paced, interactive pre-lecture activities on online MATLAB, and got familiar with the topics of the session. It is possible to combine code and results with formatted text and mathematical equations, in online MATLAB and create step-by-step lectures and evaluate them incrementally to illustrate a topic. In these self-paced modules, students learnt the topic by answering questions and writing the codes on MATLAB website. Then, they were required to answer a programming exercise on Blackboard. This pre-lecture exercise should be submitted before the lecture and carries out 10% of the mark for each session. Sessions started with a short lecture followed by Q&A. Then, students worked on exercises on MATLAB Grader, which is a browser-based authoring environment for creating and sharing MATLAB coding problems and

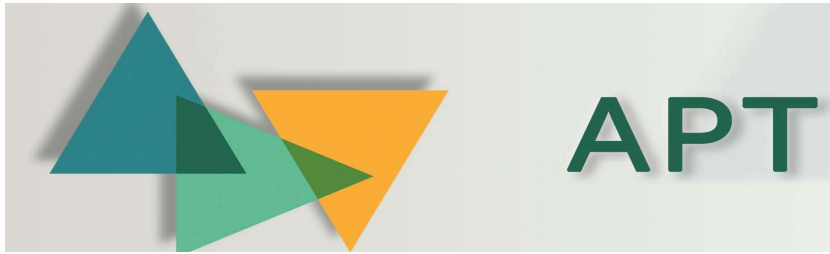
assessments. MATLAB grader was integrated into the Learning Management System, Blackboard, and provides immediate feedback to students on their submissions, for both pre-lecture and post-lecture exercises. So, students could write, run, and submit their MATLAB codes on Blackboard, and receive immediate feedback on their performance. MATLAB grader automatically grades submitted codes, and adds students grades into the Grade centre on Blackboard. Exercises in each session (1 pre-lecture, 6 post-lecture) counted for 10% of the final grade of the course, while the remaining 10% was given to the final assessments for this course. All the assessments were graded automatically using MATLAB grader. The final assessments were regraded, to make sure students followed good programming practices, and commented their codes properly. Students were asked to share the solution IDs of their submissions for the final assessments, to enable the instructor to find the codes of individual students. In the first few sessions, students were allowed to submit an unlimited number of submissions for each exercise, and then it was limited to two submissions, in most cases. In the final assessments, students were asked to only submit one solution for each question.

At the end of the course, students were invited to complete a survey to help us to understand how effective the blended and active learning activity in the MATLAB course was helping students to learn, and how helpful was the MATLAB grader in the assessments. Student feedback has been carefully analysed to identify successful and unsuccessful components of the course. The survey demonstrated that most students found pre-lecture activities and exercises very useful to enhance their understanding. They found the exercises on MATLAB grader the most effective aspect of the course and thought the auto-grading of the exercises and assignments much more effective compared to other approaches to grade the programming codes. On average, students spent around 30 minutes on pre-lecture materials and exercises around 2 hours on post-lecture exercises of each session. They found the pre-lecture activities moderately easy, and the exercises of each session slightly difficult. One student said that “the course was well paced, and the difficulty was increasing gradually in the right proportions”. A majority of students said they feel comfortable with programming with MATLAB after attending this course, and most of them said they will use MATLAB in the future.

With the help of a research student, we are going to conduct some focus groups with students who attended the course, to further elaborate their opinion on different aspects of this module and the tools used during this course. We will then use this information to improve the course for the following year and extend the use of similar tools to other modules across the department.

Session Time

10:40 - 11:30



# APT 2022

20<sup>th</sup> Academic Practice and Technology Conference (APT2022)  
 Friday 1<sup>st</sup> July 2022  
 Institute of Education, UCL, 20 Bedford Way, Room W3.01  
 Co-hosted by the London School of Economics & Political Science,  
 Imperial College London and University College London.

## Abstracts

<b>Title of Abstract:</b>	What is the role of electronic case-based learning in medical education? A review of the literature
Presenters (lead & co-presenters)	DR. SARA AL-KHAF AJ
Institution	UCL
Format	Research paper or work in progress
Abstract	<p>Case-based learning (CBL) is a teaching method which links theory to practice by using clinical cases and application of knowledge. Its usage has been well established in medical education since 1920s (Thistlethwaite et al., 2012), where it now has ample of research and literature which prove its effectiveness in enhancing medical students' overall clinical practice and analytical skills (Zhao et al., 2020).</p> <p>Over the last number of decades, the adoption of online learning in medical education has been increasing in popularity. This is especially true since the appearance of the unprecedented Coronavirus Disease 2019 pandemic (COVID-19) (Darras et al., 2021), which created a sudden and noticeable shift towards the exclusive usage of online learning environment as the main source of medical education (Dost et al., 2020). Virtual teaching has shown to be cost- effective, convenient and enables the maximization of institutional resources (O'Doherty et al., 2018). However, some disadvantages of a virtual learning environment have also been recognized, including technical issues and the time constraints to implement the online teaching (Dost et al., 2020).</p>
References	<ol style="list-style-type: none"> <li>1. Cook, J., Puckett, H. L. and Steinauer, J. E. (2021) 'Management of Obesity During Pregnancy and Periconception: Case-Based Learning for OB/GYN Clerkships', <i>MedEdPORTAL : the journal of teaching and learning resources</i>, 17, p. 11129. doi: 10.15766/MEP_2374-8265.11129.</li> <li>2. Costich, M. et al. (2021) 'Transition-to-residency: pilot innovative, online case-based curriculum for medical students</li> </ol>

preparing for pediatric internships', *Medical Education Online*, 26(1). doi: 10.1080/10872981.2021.1892569.

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4. Dawson, J. Q., Ching, G. and Huynh, H. (2021) 'Lessons in implementing virtual case-based learning', *Medical Education*, 55(5), p. 662. doi: 10.1111/MEDU.14515.
5. Dost, S. et al. (2020) 'Perceptions of medical students towards online teaching during the COVID-19 pandemic: a national cross-sectional survey of 2721 UK medical students', *BMJ Open*, 10(11), p. e042378. doi: 10.1136/BMJOPEN-2020-042378.
6. Elsayes, K. M. et al. (2021) 'Multidisciplinary Approach in Teaching Diagnostic Radiology to Medical Students: The Development, Implementation, and Evaluation of a Virtual Educational Model', *Journal of the American College of Radiology*, 18(8), pp. 1179–1187. doi: 10.1016/J.JACR.2021.03.028.

Keywords	
Theme	Inclusion and exclusion in the new normal, The promise of current and emerging technologies in shaping the university of the future, Technology, pedagogy and assessment
Session Description (Roundtable, workshops and Hackathons only)	<p>Delivering CBL virtually to medical students is an exciting educational prospect. Although there is a plethora of literature on CBL within medical education, there is a paucity of literature within the contexts of electronic CBL(e-CBL), where the literature seems to be scant and unfocused. Therefore, the aim of this literature review is to evaluate the role and significance of e-CBL within medication education. This will be used to inform medical schools of the value of using e-CBL to teach 21st century medical students.</p> <p>OVID Medline and British Education Index databases were searched with a keyword search strategy (Table 1) which was utilised to limit searches to literature within the topic area. Each key word searched included alternatives to allow for their respective acronyms.</p> <p>Studies were then identified and screened, and the process was reported in a flow diagram below (Table 3). In total, 149 papers were excluded, and the final number of papers used in this literature review is 20.</p> <p><b>Aims and objectives</b></p> <p>The objectives of this literature review are organized into the below themes:</p> <ol style="list-style-type: none"> <li>1- Illustrate the role of e-CBL from a medical education perspective</li> <li>2- Draw comparisons with the available literature relating e-CBL with other types of teaching</li> <li>3- Analyze the benefits and limitations of e-CBL</li> </ol>

Overall, the delivery of e-CBL to medical students has generally shown to be effective way of facilitating learning, improving learning outcomes and increasing knowledge of medical students across different specialities. There is also a satisfactory agreement between papers that students find e-CBL to be an enjoyable and flexible way of learning, which is encouraging in exceptional and emergency situations such as COVID-19 pandemic that took place where e-learning may be the only option. Other key themes discussed in the literature review centred on the advantages and disadvantages of e-CBL and how it compares with other types of learning.

Further research is however necessary to assess the long-term benefits of using e-CBL looking to assess whether the increased knowledge retains over time. Additionally, the findings regarding the superiority of e-CBL when compared directly to other types of teaching, such as face-to-face teaching still remains unclear and require further experimental research.

The impact of the research paper is below

- 1-Encourage e-CBL as a teaching delivery style post-COVID 19 pandemic world (teaching related to occupational health for medical schools)
- 2-Encourage further research into virtual teaching

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Session Time

11:40 – 12:30