



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
Co-hosted online by the London School of Economics & Political Science,  
Imperial College London and University College London.  
Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	3
<b>Title of Abstract:</b>	Care, community and curriculum: a case study of an academic professional development programme
<b>Presenters (lead &amp; co-presenters)</b>	Muireann O'Keefe Dr Roisin Donnelly, Dr Claire McAvinia Seamus Harrington, Marese Kelly,
<b>Institution</b>	Technological University Dublin
<b>Format</b>	Case study
<b>Abstract</b>	<p>In 2021, the disruption to teaching and learning (T%26L) brought about by the Pandemic continues. Anecdotally, it seems some disciplines thrived in online learning environments, while others such as practical subjects have suffered. As academic developers, providing a professional development programme on T%26L, we endeavoured to model best practice in online T%26L so that participants could successfully teach online.</p> <p>Initial evaluation data reported that modelling of online T%26L through our academic development programme supported online teaching practices and helped foster and sustain online learning communities. As we continue to teach online, questions have been raised about the future of T%26L in a post-pandemic and post digital higher education environment. This exploratory case study examines how the pivot to online teaching on our Postgraduate Certificate in University Learning and Teaching, impacted on teaching practices of academic staff. Also, we explore what online practices might remain in place in a post-pandemic university. This exploration is timely, at the end of the second academic teaching year effected by the Pandemic, and will help academic developers investigate the future development needs of teaching staff at our technological university.</p>

## Session Description

In March 2020, teaching and learning (T&L) in higher education pivoted online and in 2021 the disruption to traditional forms of teaching, learning and assessment continues. Anecdotally, some disciplines thrived in online modes of teaching, while others such as practical subjects have suffered.

As academic developers providing professional development for teaching and learning, we pivoted our academic development programmes online efficiently and with insight into best practice in online teaching and learning. Programme evaluation data (June 2020) reported that modelling of online teaching and learning through our programmes helped lecturers teach online, facilitate community building among their students and assisted informed change in assessment practices to suit the online context.

As we continue to work online during this pandemic, questions have been raised about the future of teaching and learning in higher education in a post-pandemic higher education environment.

This exploratory case study examines how the pivot to online teaching on our Postgraduate(PG) Certificate in University Learning and Teaching has impacted on teaching practices of academic staff across the disciplines undertaking the programme. Secondly, we wish to explore what T&L practices might remain in place in a post pandemic university. Thirdly, we want to explore if online learning is suitable and viable for the PG Certificate which values community, professional relationships and shared practice. Lastly, this disruptive change to online teaching necessitates the investigation of the future teaching development needs for lecturers teaching in online and blended spaces. Also, as an emerging technological university, through our experiences and research we propose some recommendations for the university to consider at a strategic level in support of the development of teaching and learning practice in a post digital higher education environment.

### Methodology

The design of this case study is underpinned by Brookfield's (1995) model and analyses the study aims through Brookfield's four lenses. Firstly, through our reflections in our multifaceted roles as academic developers, teachers, and programme co-ordinators. Secondly, we sought perspectives of participants of our programme, through a focus group, to understand how online T&L practices worked for them and what practices they consider implementing in the future. Thirdly, we contemplated the informed opinions of our global network of colleagues in communities such as GastaGoesGlobal and by comparison to national level conversation and considerations on the future of higher education in a post-pandemic and post digital world (Curtin, 2021). Data arising from these three lenses were reviewed thematically (Braun & Clarke, 2006) highlighting common themes arising from the data.

Next, we plan to review appropriate literature to consider how other experience, advice and models might inform future practice and direction at our technological university.

Initial data analysis indicates that during the Pandemic, a time of emergency teaching (Nordmann et al., 2020), that a value of pedagogy of care (Bali, 2020), was central to the learning environment. As programme designers we placed care before curriculum, fostering and sustaining a community of learners was a cornerstone of the online learning experience. In addition, student centred pedagogical strategies modelled on the PG Cert gave participants confidence to design similar activities with their students and also gave them the opportunity to experiment new pedagogical approaches with peers as part of the PG Cert programme. Participants reported developing strong technical capacity in use of eLearning tools for teaching but also indicated that more was needed on how to best scaffold community and active learning online. From a programme perspective, a programme team approach, which enabled collaborative planning and support for online teaching has

been important. Data also revealed that PG Cert can be continued as a blended or fully online programme requiring further evaluation.

This exploration is timely at the end of the second academic teaching year effected by the Pandemic where our study emphasises the need for community-building online with care and equity. Going forward, we can plan for the future needs of our teaching staff in a technological university that has a strong focus in its strategic vision on people, planet and partnership and to make future strategic plans in a post digital and post pandemic university. Notably, our case study of the PG Certificate in University Learning and Teaching, will be of interest to academic development staff in other universities and offer insight into how academic development programmes might be shaped and imagined in a post-pandemic world.



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<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	3
<b>Title of Abstract:</b>	University teaching staff's lived experiences of the switch to emergency remote teaching.
<b>Presenters (lead &amp; co-presenters)</b>	Katharine Stapleford Dr Katie Gathercole; Dr Yan Zhu
<b>Institution</b>	University of Leeds
<b>Format</b>	Research paper or work in progress
<b>Abstract</b>	<p>Following the COVID-19 outbreak, in March 2020 universities transitioned all teaching and learning activities online. This led to significant changes to typical teaching practices and the enforced acquisition of new skills. For some colleagues, familiar with and confident in the use of technology in teaching, this was significant but not overwhelming, while for others, it represented a major challenge to their fundamental professional identity. Teaching is often invested with one's personal and emotional energies, and therefore requires emotional commitment (Hagenauer &amp; Volet, 2014; Mortiboys, 2012). This project seeks to understand the professional and emotional experiences of teaching staff in one faculty at a Russell Group university during this period of emergency remote teaching (ERT). We adopt a narrative approach to the generation of rich qualitative data, consisting of teachers' reflections on feelings, actions, responses, experiences before, during and after the transition to ERT. We gather this data through a novel approach based on conversations between friendship pairs, an approach which recognises conversations as 'powerful tools for hearing experiences' and acknowledges the role of friendship in 'opening up and sharing of experiences' (Heron, 2020, pp. 396-397). During this session we will share preliminary findings from the project.</p>

Session Description

This is a standard research study presentation.



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<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	1
<b>Title of Abstract:</b>	Change for good: Taking rapidly evolved education technology advice forward
<b>Presenters (lead &amp; co-presenters)</b>	Tim Neumann
<b>Institution</b>	UCL Knowledge Lab
<b>Format</b>	Field report
<b>Abstract</b>	<p>This field report outlines how advice on pivoting teaching to online was handled at University College London (UCL) with a focus on key roles in the area of pedagogic and technological advice. Following an analysis of the overall support structure for teaching with technology, the report provides a portrait of advice roles at four different levels in the organisational structure, based on four group interviews with 14 staff. This provides insight into a new cascading model of support, which was rapidly deployed in the as a response to the constraints of the pandemic. As part of the organisational learning process, the field report will draw out elements that are considered successful and applicable for the future provision of high quality teaching with a significantly higher level of embedded technology use. The findings are presented in a way to work as analytical tools or reflection points for decision makers and education technology support staff.</p>
<b>Session Description</b>	<p>he Coronavirus pandemic forced teaching institutions to adjust their teaching approaches and practices rapidly, resulting in one of the most substantial organisational change projects in history, with extreme pressures on time and other resources. This presentation is a field report of how advice on pivoting teaching to online was handled at University College London (UCL), focusing on key roles that drove the change management process through the propagation of information and advice, including rapid policy changes, good practice, skills and</p>

understanding. The goal is to articulate nuanced insights into the practice of pedagogic and technological advice on online and blended teaching and learning in a high-pressure environment, with a view to identify learnings from an extreme situation that can inform future practices around change management and learning technology use and support.

The overall approach to this field report is to view the pivot to online learning as a non-traditional change management process with a focus on advice, broadly in the context of staff development. The 'non-traditional' characteristic is caused by the extreme pressure imposed by shortages of time and restrictions on available or possible methods due to lockdown policy requirements and resulting pragmatic consequences. As noted by Wilson & Stacey (2004), most literature on staff development in this area revolves around "diffusion of innovations" perspectives based on Rogers' (2003) influential framework. The urgency and scale of the pandemic situation, however, did not leave much room for targeted approaches for different staff characteristics such as technology attitudes from "innovators" to "laggards". Instead, a combination of rapid mass dissemination and information collection based on a cascading model was deployed, resulting in more consistent practice than a diffusion model would have been able to achieve.

After these fundamental considerations, the field report will present an analysis of the UCL's learning technology advisory support context based on a local modification of Garrison & Kanuka's (2004) list of organisational and leadership issues relating to the use of Internet and communications technology in Higher Education. A pre-pandemic analysis using the same methodology (Gramp, Neumann et al 2018) provides an opportunity to track changes and identify new measures and approaches.

The key part of the field report is based on four short group interviews with a total of 14 staff in education technology advisory and advisory-related roles at four different levels: Two roles operated at organisation-wide level with a respective focus on teaching practice and on digital technology. The remaining two roles operated as support and leadership on faculty level from professional staff, and on departmental level from academic peers. The group interviews provided characteristic insights into the nature of advice on education technology and digital teaching at the four different levels, thus shaping an overview of how the cascading model worked pragmatically. Key points are then extracted and interpreted to design institutional guidance for future practice.

The field report concludes with an outlook on the upcoming academic year, which represents another change: A change which is not dominated by full online teaching, but which is still driven by a high uncertainty and the associated need for flexibility, as well as a vastly higher level of education technology use, potentially on an ongoing

basis, because infrastructure continues to be available and positive practices that improve the learning experience evolved during the pandemic. An analysis of the rapid cascading model is therefore warranted, as elements of it will continue to be effective and relevant, and the presentation ends with recommendations of which elements should be maintained on the way towards a future of teaching and learning with technology that is likely more stable than the current situation, but that is also constantly evolving.



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<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	1
<b>Title of Abstract:</b>	Should we see students' cameras when we teach online
<b>Presenters (lead &amp; co-presenters)</b>	Catherine Bazela Pete Mella and Rob Spark
<b>Institution</b>	University of Sheffield
<b>Format</b>	Field report
<b>Abstract</b>	<p>This session will reflect on a new webinar "Should we see students when we teach online?" run at the University of Sheffield in January 2021. The webinar used the titular question as a catalyst for discussion around accessibility, inclusivity, and the psychological barriers to learning online, which came about as a result of the Covid-19 pandemic. We will discuss the idea of why the webinar was developed, and why we chose to run it as an online discussion rather than taking a stance on the use of webcams. We will also talk about the research that we found in the area, which at this point is largely anecdotal, the reception of the ideas from those attending, and our reflections on the session as a whole.</p>
<b>Session Description</b>	<p>This session will reflect on a webinar run at The University of Sheffield which posed the question, "Should we see students when we teach online?" as a catalyst for discussion on the elements of inclusivity, accessibility, and managing expectations of both staff and students as to what is expected in the virtual classroom.</p> <p>The webinar "Should we see students when we teach online?" was developed in response to reflection on sector wide discussions about use of webcams during the Covid-19 pandemic. We would then use this discussion as a catalyst to open the discussion around accessibility and psychological barriers to online learning. We made clear to our</p>

attendees that the session was not aimed at any comment or feedback we had received at the University, but was to raise awareness in order to provide our students with a good online experience and be responsive to the developments in the wider HE sector. The aim of the session was to encourage those leading their own session to think about the predicament of their students, and how students experience online learning using the technologies available with the institution. Attendees consisted of academics, learning technologists or members of professional services who would be delivering online sessions to students. Our online webinar was hosted on Blackboard Collaborate as this the institutionally supported software for learning and teaching activities.

Research surrounding webcam use in the pandemic is starting to come through the publishing channels, however, most remains anecdotal from student wires or opinion pieces online. Prior to the pandemic, literature looked at the pedagogical value such as encouraging understanding when learning languages, encouraging interaction in the classroom and developing further engagement. However, these papers tend to focus on students who were expecting to learn online. Students enrolled during the 2019/20 signed up to courses either expecting 100% based classroom session, or a mixture of face-to-face and online in the 2020/21 session. These students are facing a new way of learning and had no option but to participate (Trout, 2020).

Whilst researching the area, it appeared that most of the research concerning the use of webcams is from either language learning, or a distance learning perspective. The session was designed to be a place where attendees, who had a teaching responsibility, could discuss the issues surrounding webcam use. With no definitive answer available, we looked further into the issues, faced by both staff and students when using webcams in online teaching and learning, in order to manage expectations of what is required in online learning.

Reports from Jisc (Killen & Langer-Crame [Jisc] 2020) and Ofcom (2020) highlighted technical issues faced with the move to online learning/work, and issues faced by students in terms of hardware. Also, the choice of software can also affect the decision to share cameras. Non-technical elements were also explored, including homelife, mental health (using anecdotal evidence available), inclusivity, and safeguarding. In particular, the mental health aspects as reported by students (Zoom cameras...2020), and the different aspects of presenting themselves online versus the classroom (Reed 2020).

We plan to present the session by explaining why the webinar was developed, and the themes we explored during the webinar. We will provide our attendees a summary of the technical elements which can create barriers to online learning, then provide a chance for our attendees to interact by thinking about and discussing the non-technical barriers to online learning. We will use attendees' responses to talk about the interaction which occurred in the webinar. We will the

look at feedback gathered, questions raised by our participants, and our reflections. We will also look at how we plan to update the webinar for future iterations.



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<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	1
<b>Title of Abstract:</b>	The Use of WhatsApp® in Medical Education: Building a new community during a pandemic
<b>Presenters (lead &amp; co-presenters)</b>	Dr Charlotte Patterson Dr Victoria Shivji; Indran Balakrishnan, Professor Alison Rodger
<b>Institution</b>	Royal Free London NHS Foundation Trust; University College London
<b>Format</b>	Field report
<b>Abstract</b>	<p>Background: We used the instant messaging service WhatsApp® to co-ordinate a semi-virtual 2-week hospital placement for 4th year medical students. The purpose of the WhatsApp® group was to ensure students felt part of a community of practice during a challenging and disruptive time for medical education, as well as to communicate logistics in clinical placements such as last-minute venue changes.</p> <p>Methods: All Students were emailed a short survey after the placement to ascertain how useful they found the WhatsApp® group.</p> <p>Results: With a 72% (55/76) response rate, 100% (55/55) of the students felt all placements should use WhatsApp® in this way. Students identified a sense of belonging to a team through the use of WhatsApp®. They also found it useful to locate bedside teaching sessions, troubleshoot information technology (ICT) issues and receive notification of late-running sessions</p> <p>Discussion and Conclusion: The last academic year has posed significant challenges for medical education, with many medical schools running semi-virtual clinical attachments for students. Sense of belonging and feeling part of communities of practice is essential for learning to take place. We conclude that use of WhatsApp® in medical education creates a sense of belonging and community amongst students, enhancing their educational experience.</p>

## Session Description

The SARS-CoV-2 pandemic has caused significant disruption to medical education, with many universities suspending clinical placements for healthcare students and limiting clinical contact throughout the pandemic that to-date has now lasted 14 months and is likely to continue causing disruption for years to come. This is having a devastating impact future training of healthcare professionals. It requires those of us involved in their education to adapt and rapidly develop innovative and sustainable methods of ensuring can still receive adequate training, pass exams and most importantly, to go on to provide safe and effective care for patients in the future.

In 1943, Maslow published 'a theory of human motivation' (Maslow, 1943). He describes how basic human needs must be met for learning to take place. These include 'Physiological', 'Safety', 'Love', 'Esteem', and 'Self-actualisation'. Since this, his work has been heavily revised, critiqued and analysed. I argue that Maslow's theory of human motivation is more relevant in a pandemic than ever before. Many of us feel less safe than we did last year– are we going to catch SARS-CoV-2? How will it affect us? (Feroz, 2020), (Knowles, 2021). It is imperative the students feel safe when learning in a hospital, in particular when that hospital is filled with patients who are highly infectious with a potentially life-threatening disease. How will they learn if they don't feel safe? If students are worrying about the efficacy of their personal protective equipment (PPE), they are unlikely to be able to focus on their history-taking skills. Maslow's 'safety' – a key factor in human motivation is removed. In addition to this, their sense of belonging (Maslow's 'love') will be reduced, with medical teams busier than normal and less able to give their time to medical students needing to learn. It will undoubtedly be far harder for the students to achieve 'self-actualization'. Their physiological needs may also not be met – hospitals in the UK adopted the use of PPE consisting of a minimum of a fluid resistant surgical mask (FFSM), gloves and a gown when having contact with any patient. It is far more challenging to learn when wearing uncomfortable PPE and may create a barrier to learning in students' minds, for example reluctance to go and see patients due to not wanting to wear PPE.

The use of WhatsApp® allows students to fulfil many of Maslow's human motivation criteria to be met, and this is supported by the results of our survey where 100% of the students identified that all rotations should use a WhatsApp® group. Students reported feeling that WhatsApp provided a safe space to ask questions, such as ensuring they were wearing correct PPE. This allowed fulfilment of Maslow's 'safety'. They felt 'Love' ie. a sense of belonging, as many students identified feeling part of a community through the use of WhatsApp® . In addition to this, their social needs were met through constantly being in touch with the team and other students. The results of our survey are also supported by Lave and Wegners (Lave, 1991) work on

communities of practice, whereby effective clinical learning takes place in a ward-based setting when students feel part of a team.

The SARS-CoV-2 pandemic has forced us to embrace technology in learning at an accelerated pace, and will no doubt change the way we work and teach forever. One of the biggest challenges faced by medical educators was facilitating teaching whilst adopting social distancing in keeping with hospital, medical school and government guidance during the pandemic. Most UK Medical schools advised that face-to-face teaching should be held in groups of a maximum of two students at a time, or suspended in person teaching all together. As a result, virtual teaching platforms including Microsoft Teams, Blackboard Collaborate and Zoom were utilized to deliver medical education. Using the instant messaging services such as WhatsApp® allowed students to rapidly communicate any technology issues, as well as still having a sense of belonging despite being socially distanced. It is also a further example of using technology effectively in medical education, and several papers have previously described its utility (Coleman 2020).

In conclusion, the use of WhatsApp® in our hospital has allowed us to effectively use technology to ensure students felt part of a community during the SARS-CoV-2 pandemic and the results of a small survey sent out to our students support that all students agree that this enhanced their learning experience, and that all placements should be using WhatsApp®.



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<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	2
<b>Title of Abstract:</b>	An Inclusive Approach to Exams as a Response to the Pandemic
<b>Presenters (lead &amp; co-presenters)</b>	Dr Jennifer George
<b>Institution</b>	Goldsmiths, University of London
<b>Format</b>	Case study
<b>Abstract</b>	<p>In March 2020, within the space of a week, England went into lockdown and Universities had to switch to online delivery of teaching, learning and assessment activities. Exams that traditionally took place in invigilated examination halls were cancelled and staff were left to assess students online. I was the Exams Office and Chair of the Board of Examiners for the year and resolving this for our department was my responsibility. This paper discusses the process of setting up inclusive digital exams in the computing department, implementation, challenges and the feedback from both staff and students. This approach was adopted by 13 members of staff and the exams were taken by over a thousand students. The paper closes with how we intend to carry over the lessons learnt from this experience.</p>
<b>Session Description</b>	<p>Usually, exam setting processes consider reasonable adjustments for students with disabilities by way of additional time, large text, different coloured paper, take home paper, separate room, reader, etc. The pandemic presented different contexts where our exams needed to be inclusive:</p> <ul style="list-style-type: none"><li>• We had several students who had returned to their home countries and would be taking the exams from different time zones.</li><li>• We had students who had to share internet connections, computers and study spaces in their homes.</li></ul>

- We had students with informal care responsibilities as a result of the pandemic for instance, in the absence of professional carers.
- We had students who were key workers.
- We had students whose mental health was suffering due to the context.

This inexhaustive list and any existing disabilities meant we needed to identify an approach to the exams that could be taken at a flexible time, with flexible duration and at the same time be fair and rigorous.

Thus, this examination process had a significant impact not only on students with diverse disabilities but also the diverse contexts they took the examinations from as a result of the pandemic.

Based on my previous experience as Academic Lead for Technology Enhanced Learning at Anglia Ruskin University for five years and work with Jisc on Inclusion and Accessibility initiatives, I drew on my knowledge and experience to identify the best approach.

As a Computing Department, staff were familiar with online tests with formative quizzes including those text-based, programming and mathematics. The standard duration for exams in our department are 2hr and 15 minutes with additional time for any students with special arrangements.

The following principles were used to set the new digital exams:

- Each exam was available to take within a window of 48 hours. This made the exam inclusive of students in other countries, had family responsibilities and who would otherwise may not be at the optimum set up to take an exam.
- The duration of each exam was set to be three times the duration that would be required. This not only addressed any special arrangements that would have been in place for students with disabilities but also catered any slow internet connections.
- Exams were broken into smaller components. This met the needs of students who needed to take frequent breaks and also split up the time a student needed to occupy the computer and possibly a room for the duration of the exam at home.

The following measures were taken to enhance academic integrity:

- Exams were a combination of multiple choice and long questions, similar to the traditional paper-based exam format. In the digital exam, staff set a large bank of questions and each student would receive a randomly selected questions with randomised answers. No student would receive the same question at the same time and if students spent time discussing the questions and answered, they would lose their own time and at the end of the time, the answers would automatically be submitted. Once submitted, students could not revisit questions.
- Long questions were set up in open book style.
- For long answers, students have to scan/take photo and upload their working where relevant.

- Vivas were organised for randomly selected students for every module.
- If there was suspicion of academic dishonesty, they were dealt with a separate process.

Mental wellbeing at exams:

- Similar to the incident form at more traditional exam halls, an online problem reporting form was set up so students could report any issues with their computer, internet connection, exam system, and any other extenuating circumstances.
- Exams were never reopened for students but if the student had experienced extenuating circumstances, they were considered at the board of examiners and offered an opportunity to take uncapped resit in the next opportunity.

Managing Student Experience:

- We set up a sample exam for all students to try on a generic subject to understand the format.
- We had student meetings where they could raise any concerns and worries.

Staff Experience:

- This format took significantly additional time to set up. However, majority of the marking was automatic and the questions could be reused in the following years.

• Learning to write open book style questions was a new experience to many. This was managed with individual conversations and support from more experienced staff.

Student Feedback:

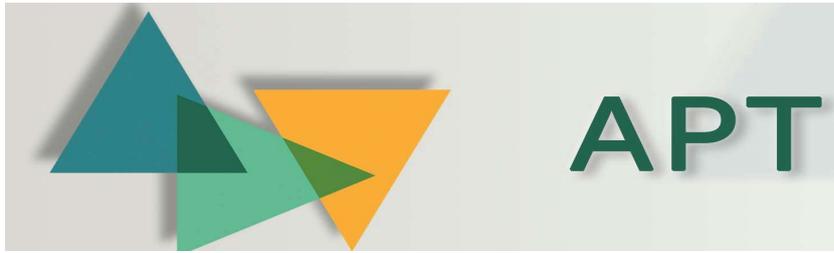
While there was initial apprehension due to the uncertainty and the new format of exams, students responded positively to their exam experience. Feedback ranged from how they appreciated being able to choose their personal best time to, reducing the stress they would normally feel in exam halls.

We received just over hundred incident reports. Concerns raised ranged from students being unsure if their answers were saved to technical problems with their internet or computer. Incidents were summarised and considered at the pre-exam board meeting. Majority of the reported concerns from students were dealt with by email, confirming that the examiner had received their responses. Only two students had significant technical problems had to retake the exams in late summer. Our external examiners commended our approach and staff and students would like this approach to exams continue.

Moving forward:

Our experience was overwhelmingly positive and we have decided to keep our future exams online with some changes. Due to scheduling availability, we have reduced the exam window from 48 hours to 36 hours.

We have had challenges with making the exam questions and answers available for external examiner scrutiny in the same format. We are working out ways of improving this with our technical experts. As there is limited publication on assessments as a response to the pandemic, I cannot say for certain if similar approaches have been practices elsewhere. This was an approach original to our department, and was used by 13 members of staff and over a thousand students.



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<b>Breakout Room</b>	2
<b>Title of Abstract:</b>	Evening Report: Student-Faculty Shared Learning for Clinical Reasoning
<b>Presenters (lead &amp; co-presenters)</b>	Dr Adam Boggon Matthew McCann
<b>Institution</b>	Royal Free Hospital & University College London
<b>Format</b>	Case study
<b>Abstract</b>	<p>Collaboration between faculty and students in preparing and delivering teaching activities may yield novel opportunities for learning across a wide range of disciplines.</p> <p>Evening Report is a weekly case-based interactive lecture delivered online and in person for clinical medical students at University College London. Students present cases encountered during their placements in the form of a diagnostic puzzle: engaging learners to think in a structured, rigorous fashion through their approach to the problems faced by the patients they encounter. We focus on clinical reasoning: the analysis of anamnesis, physical examination findings and investigation results to reach an accurate diagnosis. Faculty and student co-presenters interleave relevant discussion of basic science, anatomy, physiology, pharmacology, pathology and clinical anecdote. Each session has a theme and cases are presented covering the breadth of medicine and surgery. Content is aligned to the UCL curriculum.</p> <p>Evening Report has been delivered 15 times and has proved a popular adjunct to the clinical programme at the Royal Free Hospital. Close working between students and hospital faculty provide students with a gentle introduction to what the experience of 'standing on the other side of the podium' feels like, in addition to the knowledge they and their peers gain from the lectures. We have built a small, engaged community of practice within the hospital during a time of extraordinary disruption to education.</p>

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Session Description

The COVID-19 pandemic has disrupted all aspects of medical education (1). The pandemic and attendant infection control measures necessitated at first cancellation, and later significant reorganisation, of clinical placements. Clinical medical education has been especially vulnerable - since patient contact is crucial to becoming a doctor. Given the UK's progress with COVID-19 vaccination and the gradual relaxation of social distancing rules medical schools must consider how much of the 'virtual experience' of medical education should continue?

Evening Report is a weekly case-based interactive lecture delivered online and in person for clinical medical students at University College London Medical School. Students are encouraged to present cases encountered during their placements in the form of a diagnostic puzzle. Faculty-members guide discussion to help students learn to think in a structured, logical fashion through the problems faced by the patients they encounter. The emphasis is on clinical reasoning: the analysis of the patient history, physical examination findings to create a plausible differential diagnosis, which is then narrowed by carefully planned and clinically appropriate investigations to reach an accurate diagnosis. Faculty and student co-presenters interleave relevant discussion of basic science, anatomy, physiology, pharmacology, pathology and clinical anecdote. Each session has a central theme and cases are presented from the breadth of medicine and surgery. Content is aligned to the existing UCL curriculum.

The session has been modified iteratively over a series of 15 weekly sessions. Initially conceived solely for students in the first year of their clinical programme at the Royal Free Hospital (Year 4 MBBS), the session is now offered as an optional remote-access teaching session via MS-Teams for clinical students across University College London teaching hospitals via a link on the Moodle platform. At first, multiple cases were presented each week but this was adapted to focus in more detail on a single patient experience with attention paid to all relevant aspects of the case.

Framing cases in the form of a diagnostic puzzle permits attending students to engage in 'real-time' clinical reasoning around the presenting complaint, differential diagnosis and management of patients, simulating real-life clinical practice. Prior to and during the lectures, faculty work closely with the presenting student to help organise and think-through the case, offering an opportunity for feedback, role-modelling and directly observed practice. This highly collaborative environment has created a small-scale community of practice(2) within the hospital environment which mirrors that of Morning Report, a twice-weekly postgraduate-level education meeting at the Royal Free Hospital, which students may also attend.

Technology plays an important role in the exercise. The MS-Teams platform allows all students to attend the session remotely. At first this was principally to allow students who did not have in-person clinical

activities that day to attend and adhere to infection control advice by preventing unnecessary commuting. Later, when students at other UCL-affiliated teaching hospitals expressed interest in attending the sessions and presenting cases, the online platform made this possible without breaching hospital infection control rules. Two-way audio and live video allow questions and answers to be shared by both the in-person audience and remote attendees.



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
Co-hosted online by the London School of Economics & Political Science,  
Imperial College London and University College London.  
Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	2
<b>Title of Abstract:</b>	Finding common ground in a degree apprenticeship: the challenges of work-integrated learning for Gen Y and Gen Z
<b>Presenters (lead &amp; co-presenters)</b>	Dr Paula Nottingham
<b>Institution</b>	Middlesex University
<b>Format</b>	Research paper or work in progress
<b>Abstract</b>	<p>One of the challenges facing higher education today is to develop work-based and work-integrated learning that is sustainable with newer generations of learners. This session explores an innovative degree apprenticeship that includes a specialist collaborative partner and employers using the concepts of Gen Y and Gen Z. The case study for the BSc (Hons) Professional Practice in Business to Business Sales Degree Apprenticeship responds to the need to enhance existing resources and provide flexible and sustainable delivery strategies for learning within the workplace (Author, 2021). Findings from the research suggest that with younger professionals, the use of digital technology is an active part of the engagement in university learning and establishing job roles. Gen Y and Gen Z apprentices in this study mirrored a review of literature that indicated that this demographic showed positive attitudes towards technology as well as aspirations for work-life balance. The case study has led to significant insights about the common ground that exists between generations and how to think about the online provision currently in use while considering ways to develop new hybrid strategies for learners based on an increasingly digitised post-Covid workplace.</p>
<b>Session Description</b>	The session will present relevant findings from a degree apprenticeship case study research that was done as a part of a book chapter that focused on the learning needs for Generation Y (Gen Y) and Generation

Z (Gen Z) learners. In this case the degree apprenticeship is seen as a form of work-based/work-integrated learning now becoming more prominent as a learning style since apprenticeship standards were introduced within UK Higher Education.

The research looked at how changing demographics, employment trends (Bakhshi et al., 2017), and shifts in work practice, such as the Covid-19 pandemic in 2020-2021, have changed the ways in which academic practitioners need to adapt practice to meet current and future needs of learners. Literature surrounding teaching younger generations, within and outside of the context of work-integrated practice, has shown a variety of relevant trends. In this project, as well as finding sources to describe Gen Y and Gen Z, research that questioned how these concepts were being applied supported a view that a common-ground approach would be beneficial for apprenticeship learning where multiple generations worked side by side.

The research argues that flexible higher education (Barnett, 2014) which embraces the notions of digital transformation is key to work-integrated learning where it is essential for younger professional to learn from and with a diverse range of professionals and stakeholders, including customers. Digital literacy is key to critical future skills (Ehlers, 2020) and is another factor that has been brought to the fore during the Covid-19 crisis. While younger adult learners are considered 'digital integrators' (McCrinkle, 2014), there is much scope for higher education interventions that bring out meaning and academic practice that facilitates a fast-moving and changing knowledge setting. The Visitors and Residents model (White and LeCornu, 2011) is a case in point.

There were six main thematic findings from case study review and a small questionnaire completed with students/apprentices about issues surrounding Gen Y and Gen Z and the work-integrated learning they were experiencing. The majority of apprentices seemed very aware of the implications for the use of Gen Y and Gen Z to determine demographic features, but did not overtly endorse its influence on identity as a sole way to frame learners. The ability to use technology, the internet and social media were seen as a part of apprentice job roles and as providing a good skillset for the university work-integrated studies.

Conclusions to the research referred to future implications and prospects for adapting inclusive learning in work and community settings with professionals and multi-generational ways of working. Recommendations included developing practice to keep engagement with all ages and levels of digital literacy, even more use of mobile technology for learning that is relevant in the workplace, opportunities for leadership using the principles of coaching with team peer groups, and further preparation for the advent of technology for learners in the

21st century. Similarly, Ehlers (2020) forecasts digital transformation at scale and advocates intensive skills training for higher education. These findings were considered in light of degree apprenticeship learning, but can be applied to the growing cohorts of Gen Y and Gen Z students in mainstream programming who are using more online technologies for work-integrated learning post-Covid.

N/A



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
Co-hosted online by the London School of Economics & Political Science,  
Imperial College London and University College London.  
Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	3
<b>Title of Abstract:</b>	Hybrid Teaching: Fight or Flight?
<b>Presenters (lead &amp; co-presenters)</b>	James Rutherford Dominic Pates, Ivan Sikora
<b>Institution</b>	City, University of London
<b>Format</b>	Case Study
<b>Abstract</b>	Hybrid teaching is a pedagogic and technical approach to simultaneous teaching to students that are either on campus or online. Although it has been in practice for some time within higher education, notably with the Hyflex model originating from the US, significant uptake in such hybrid approaches have largely only happened in reaction to the COVID-19 pandemic. While some hybrid learning spaces were hastily implemented for tactical reasons, many would have been technically complicated for teaching staff, developed without adequate time for pedagogic planning, and with major implications for the student experience. While hybrid modes of teaching can have significant challenges for academic delivery, student inclusion, course delivery and timetabling, they can also offer up new opportunities for higher education. This case study shares an approach being taken to develop inclusive synchronous learning environments, draws on some lessons learned from pre-pandemic experiments with hybrid teaching, and invites participants to contribute their perspectives on this emerging practice via a new podcast initiative.
<b>Session Description</b>	Online learning has been either grounded or taxiing on the higher educational runway for many years. The COVID-19 pandemic, however, accelerated a massive shift towards online learning, enabling it to fully take flight. While it has proved a profoundly challenging experience on

many levels, it has arguably also represented a unique opportunity to reconsider post-compulsory education, particularly for redesigning delivery of the curriculum around active learning practices. Post-lockdown opening up of society may well result in a fight to return to the conventions of 'business as usual' university teaching and learning. How can the positive aspects of technologically-enhanced teaching and learning practices be kept in flight when campus populations are able to mingle together once again?

Following a handful of pre-pandemic experiments into hybrid teaching, City, University of London (City) has begun an institution-wide collaborative project called 'Inclusive Synchronous Learning Activities' (ISLA) to explore the potential that hybridised forms of teaching can offer. This session takes a look at the case study of the ISLA pilot project to develop two learning spaces at the Aldersgate site in the City of London as a proof of concept. The project team at the University will research the impact of these pilot spaces to inform future facilities and designs. The session will outline the pedagogic-informed approach which includes the design of guidance and support material for teaching staff to engage with before attempting this delivery model.

Hybrid approaches to synchronous teaching require the intensive use of digital technologies, and need to be both appropriately designed and well pedagogically supported in order to be considered successful or effective. In this session, we will describe the formation of the ISLA specification, where academic staff simultaneously present to their class in-person and online, via Zoom, with a camera feed for the online audience and microphones to pick up in-class speech for the remote learners. The lectern PC has Zoom installed and also includes two LCD monitors - one to be used as a confidence monitor and the other to display Zoom in gallery view. New wall-mounted LCD screens have been fitted in the spaces for the in-class students to be able to see their fellow online students as well as a view of the presentation wall. A key development for the effective functioning of this hybrid approach is the addition of ceiling-tile microphones, which allow the voices of anyone in the room to be picked up within a five metre radius and, crucially, audible to those online. Those online can communicate with the class on campus via chat, or by using their own webcams and microphones. The strategic intent is to embed an inclusive and equitable approach to the design and integration of technology that is backed up by informed pedagogical practice. The presenters will also share an excerpt from a new guidance video recorded in one of these spaces, that has been produced as part of a package of training and support for academic staff at the Business School.



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
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 Imperial College London and University College London.  
 Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	4
<b>Title of Abstract:</b>	“All the world’s a stage” – the Open Broadcaster Software (OBS) as enabling technology to overcome restrictions in online teaching
<b>Presenters (lead &amp; co-presenters)</b>	Gerhard Kristandl
<b>Institution</b>	University of Greenwich
<b>Format</b>	Case study
<b>Abstract</b>	The Open Broadcaster Software (OBS) Studio is a free software that enables tutors to overcome the typical restrictions of video conferencing software like MS Teams or Zoom. These restrictions come in terms of what can be shown in a live online teaching or recording session, and how. A case study about a student role-play exercise in an Accounting Information Systems course will demonstrate these technological (and consequently pedagogical) restrictions, caused by the pandemic-induced move to online teaching. This put a dampener on otherwise engaging teaching and student activities hitherto run in the classroom. The goal of this presentation is to demonstrate how OBS Studio was employed to overcome technical and pedagogical restrictions set by typical video conferencing software in this situation. In doing so, this presentation will be run in a PechaKucha format, followed by a brief demonstration of the flexibility offered by using OBS Studio as enabling technology.
<b>Session Description</b>	I aim to present the above in a PechKucha format to demonstrate how I used OBS to overcome the technological restrictions set by MS Teams in particular. The PechaKucha (20 slides, 20 seconds each) will follow this format: 1. Slide 1 – Introduction – All the world’s a stage (life is a stage) 2. Slide 2 – Introduction – Students on a stage 3. Slide 3 – Key Point 1 – Role-plays are beneficial to student engagement 4. Slide 4 –

Key Point 1 – RP/games add to experience, learning, retention. 5. Slide 5 – Key Point 1 – RP/games disrupt the comfort zones. 6. Slide 6 – Key Point 2 – Covid-19 disrupted our teaching, learning, lives. 7. Slide 7 – Key Point 2 – Moving online was supported by many how-tos. 8. Slide 8 – Key Point 2 – Myriads of training did not tell me how to run RPs online. 9. Slide 9 – Key Point 3 – My in-class RP setup was out of the window! 10. Slide 10 – Key Point 3 – Example of the segregation of duties RP game in AIS 11. Slide 11 – Key Point 3 – What the RP game is about. 12. Slide 12 – Key Point 3 – All students participate in this Howdunnit 13. Slide 13 – Key Point 4 – So how to do this online, with all those technical restrictions? 14. Slide 14 – Key Point 4 - Taking cues from online content creators. 15. Slide 15 – Key Point 4 - My home teaching setup 16. Slide 16 – Key Point 4 – My RP re-designed for online delivery with OBS 17. Slide 17 – Key Point 4 – Students got engaged and immersed 18. Slide 18 – Key Point 5 – Student feedback was excellent! 19. Slide 19 – Summary and Takeaway 20. Slide 20 – Summary and Takeaway After the PK, I aim to do a demonstration of OBS and the use of the overhead cam to show the so-called "Blue Data Whale" (use of props to teach students the difference between data and information). I will show OBS Studio itself and various additional views I have created to engage students during online classes. It is my aim to propose OBS for more widespread use in higher education online teaching to enhance the student (and staff) experience.



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
Co-hosted online by the London School of Economics & Political Science,  
Imperial College London and University College London.  
Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	4
<b>Title of Abstract:</b>	Engineering Minecraft: hands-on & collaborative leaning in a virtual lab
<b>Presenters (lead &amp; co-presenters)</b>	Dr Rebecca Yerworth
<b>Institution</b>	UCL
<b>Format</b>	Case study
<b>Abstract</b>	<p>The global pandemic necessitated an interdisciplinary lab project for ~250 undergraduate students to be moved online. Minecraft, Education Edition [1] was chosen due to it's potential to create an immersive and 3-dimensional environment for collaborative experiential learning. Whilst there are numerous reports of Minecraft successfully being used for education, this has mostly been with younger students [2]. To enable degree level engineering aspects to be explored, creative use of existing game features where combined with bespoke code, the framework of which would be applicable to other curriculum topics. Although commercial modelling software would have created more detailed and accurate results it would have taken disproportionately long learn and created minimal sense of 'presence'. Presence is an important aspect of the Flow Theory of learning [4], and Minecraft is well suited to providing this. As for the visualisations, simplistic visuals are sometimes as good or better [3] than complex ones. The experience for some students was marred by issues with connecting to the servers and bugs in the bespoke code. However, overall, staff observations, formal and informal student feedback, and the quality of the submitted work all confirmed the appropriateness and potential of using Minecraft in this way.</p>

## Session Description

The session will elaborate on how technology, in the form of Minecraft, Education Edition, was used to meaningfully translate group lab work in to an online format, during the Covid pandemic.

During the session the presenter will give a live demonstration of the Minecraft learning environment, focusing on aspects which are transferable to other curriculum topics, including:

- \* Why use Minecraft, rather than research grade modelling software.
- \* Tips and 'tricks' to harness the hidden computational power of Minecraft.
- \* Methods for using player actions to pass numeric information to a custom algorithm.
- \* Techniques for encouraging students to work collaboratively.
- \* Does it matter that it's square? A discussion of how accurate/realistic visuals need to be.
- \* The role of 'accidental learning' – adverse consequences and safety equipment.
- \* Logistics of hosting multiple servers
- \* Reflections feedback, and lessons for next time.

Thus delegates will not only be able to hear about how and why Minecraft was used, but see the innovative and alternative practice in action, and be shown how students could be supported remotely, to work collaboratively with their peers despite geographical barriers and being away from campus. This will encourage others to see the possibilities for using Minecraft within their teaching.

Key themes which will be explored are:

"Why use Minecraft, not subject specialist software?" Research grade modelling software is often complex to learn, requires a high level of existing subject knowledge, and be designed for use by a single operator, all of which are likely to detract from the other learning objectives, e.g. team work and experiment planning skills. Minecraft offers the potential to create customised, immersive environments, where students can move around and interact with an 'object' as well as colleagues. Having an immersive environment, generates a sense of 'presence' in the virtual world, which, is an important aspect of the Flow Theory of learning [4]. Other aspects contributing to 'flow' in learning are a sense of fun/enjoyment and being in control. 'Ordinary' Minecraft is a popular game – so is obviously designed to be fun, and there are many reports of it being used to, successfully, make learning more enjoyable, leading to increased student engagement, and hence more/deeper learning [2].



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
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Imperial College London and University College London.  
Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	5
<b>Title of Abstract:</b>	Breaking the Silence in Online Spaces: How Socialization Strategies Using Digital Technology Inspired a Community Outreach Project on Anti-Racism
<b>Presenters (lead &amp; co-presenters)</b>	Simone Adams Barbora Orlicka
<b>Institution</b>	University of Graz, Austria
<b>Format</b>	Field report
<b>Abstract</b>	<p>Online engagement of students has always been a challenge for teachers, exacerbated during the past year of “pandemic teaching”, with factors such as the digital divide, “Zoom fatigue”, and overall lack of (mental) well-being influencing whether students want to or are even able to participate in virtual classroom spaces. Building a strong online learning community for diverse learners with different needs is therefore all the more important. This field report describes and analyzes the pedagogical course design and practical strategies to foster online socialization in an undergraduate American Studies seminar that led to a voluntary student community outreach project on anti-racism. The “Breaking Silence” project was designed by the students, with the instructor acting as a consultant and mentor, and resulted in a virtual kick-off event via ZOOM, a 2-week social media challenge, and engagement far beyond the (online) classroom. Through autoethnographic reflections and analysis of scaffolded synchronous and asynchronous online classroom activities, the authors of this paper will demonstrate how the focus on “access and motivation” and “online socialization” in online activities (Salmon 2011) as well as a Universal Design for Learning approach, and allowing a sense of classroom vulnerability leads to stronger social presence and more student engagement.</p>

## Session Description

Any good teaching practice involves continuous reflection. Educators reflect on their methodology, their approaches, and their strategies in the classroom. They evaluate how a particular lesson achieved what it set out to accomplish or why it did not. In addition to their own, they also analyze other teachers' practices to see if and how these would work in their own classes. This habit of (self-)reflection is a powerful tool and is employed strategically to ensure high-quality learning experiences for students. Such (self-)reflection often brings about processes of transformative learning (Mezirow 2003) and the realization that changes are needed in order to improve one's practice. As Jürgen Handke (2020) stresses, there is a need to develop a new mindset in order to effectively and successfully employ digitalization and technology in education. We aim to investigate the pedagogical as well as the personal and emotional aspects of the online teaching experience during the pandemic by looking at the classroom experience in an undergraduate seminar of American Studies, taught fully online in the winter semester of 2020/21 at the University of Graz in Austria. In doing so, we will demonstrate how a diverse group of students (racially and otherwise) can be engaged online to the extent that they are motivated to continue and showcase their learning in a (voluntary) community outreach project. This could serve as a blueprint for other educators who are struggling with student engagement in online spaces.

A central question of this talk will be focusing on the roles of educators: How have these roles changed in the face of the pandemic, particularly regarding social and affective strategies employed in classrooms, not only to broaden participation of an increasingly diverse student body, but also to create socially just and equitable learning environments despite the presence of a digital divide?

We will look at new strategies to foster "access and motivation" and "online socialization", the first two stages listed by Gilly Salmon in her "5-stage model" for successful online learning. This includes regular check-in and check-out activities, ice-breakers, as well as screencast tutorials to explain how to navigate the learning management system and audio commentary to contextualize course readings and provide guiding questions. Additionally, we will explore how a sense of classroom vulnerability, brought about by the unique situation of teaching and learning from home during a global pandemic, helped to increase social presence online. With Austria having remained in a state-wide lockdown for much of the winter semester, this proved particularly important because students expressed concerns about feeling isolated and overwhelmed, something that has also been observed in online classes before the pandemic. Similarly to what Francesca Gino posited in her webinar "How the Pandemic Made me a Better Educator" (2020), we will argue that a shared sense of vulnerability affects classroom engagement, especially when discussing sensitive topics such as race and identity.

Additionally, we will analyze how an online class framed by a Universal Design for Learning approach creates an inclusive and accessible classroom and course materials, as well as provides students with flexible choices regarding course assignments. By focusing on online collaboration through asynchronous activities on the learning management system Moodle in addition to bi-weekly synchronous sessions through Webex, this blended learning approach uses elements of a flipped classroom setting, and allows students the necessary autonomy to engage with course materials and contents on their own time in a way they could feel comfortable with.

Lastly, the student community project “Breaking Silence” will be analyzed and reflected on, with a specific focus on online mentoring processes that were designed to assist students in their self-directed learning and growth.

Reflecting on this project allows us to identify the afore-mentioned new mindset that higher education will need as we are moving forward into a future of increasingly diverse student communities. These students do not only need access to higher education, but also flexibility regarding their unique life situations, and – just as importantly – spaces to feel represented in to be comfortable enough to break the silence and engage, online and offline.



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
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Imperial College London and University College London.  
Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	5
<b>Title of Abstract:</b>	How UCL Economics Walk went virtual
<b>Presenters (lead &amp; co-presenters)</b>	Ramin Nassehi
<b>Institution</b>	University College London
<b>Format</b>	Research paper or work in progress
<b>Abstract</b>	<p>UCL Economics Walk is a walking tour of Bloomsbury, where the tour leader (i.e. lecturer) takes the audience through different locations in this area that have an economic story to tell. The project's aim is to explain complex economic ideas in an accessible way to students and/or members of the public and encourage critical discussion on those ideas. I have offered this tour in person for thirteen times and twice virtually. In terms of pedagogy, this tour follows a dialogical approach in a sense that the tour leader starts a conversation about each location with, and among, the audience. In this presentation, I will talk about the challenges I faced to create a virtual version of this tour on Zoom, particularly the different mediums (Google Map, interactive online polls, music, short snippets from movies, Green Screen presentation) I used to encourage peer dialogue and create a sense of collective intellectual journey. You can watch the teaser of the virtual tour here: <a href="https://www.youtube.com/watch?v=46yS6UUuRN8">https://www.youtube.com/watch?v=46yS6UUuRN8</a></p> <p>This tour takes a place-based approach to teaching economics that can be easily adapted to different campuses, towns or cities in face-to-face or virtual settings. For instance, this method can be used to discuss a shop, a building or an advertisement in campus/town that has an economic story to tell. Generally, the tour aims to teach economics by encouraging a (digital) collective dialogue around certain locations (i.e. case studies).</p>

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Session Description

This presentation relates to the subtheme of “Building new communities and developing new identities”. As a public engagement project, the virtual UCL Economics Walk uses various technologies including Zoom, Google Map, Green Screen presentation and interactive online polls to create a virtual walking tour of London (Pezzino, 2017; Draper & Brown, 2004). During this tour we use a customised Google Map to virtually “visit” locations that are associated with thinkers who had shaped economics like David Ricardo, Charles Darwin and John Maynard Keynes. The tour is targeted at students and/or members of the public. The main approach of this tour is dialogic in a sense that the tour leader starts a conversation about each historical character with, and among, the audience rather than monotonically transfer historical facts to the participants (Wolfe & Alexander, 2008). To further stimulate the discussion, I play historical videos, music and short snippets from movies related to the topic or character of discussion.

I will cover the following in my presentation:

The tour’s aims and content: (a) Demystifying and democratising economics for the public (Carlin, 2012), (b) Creating a sense of community and identity among students, (c) Highlighting the connection between economics and other disciplines (Goldsmith & Casey, 2011), (d) Decolonising the classroom (Le Grange, 2020).

The tour’s teaching approach: (a) Dialogic method, (b) role play by the audience, (c) Location-based discussion (i.e. case studies).

The tour’s technology mix (the virtual version): (a) Customised Google Map, (b) Green Screen on Zoom and (c) interactive online polls.

I will finish by highlighting the possibility of using the trio of dialogic method, Ed Tech and placed-based discussion for other contexts and learning practices.



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
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 Imperial College London and University College London.  
 Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	5
<b>Title of Abstract:</b>	Mobius – an innovative online maths resource for widening participation through individualised learning pathways
<b>Presenters (lead &amp; co-presenters)</b>	Shaheen Charlwood Judith Brown
<b>Institution</b>	University of Warwick
<b>Format</b>	Research paper or work in progress
<b>Abstract</b>	<p>Mobius (Maths Online Bridge for Individualised Undergraduate Support) is an innovative online maths tool created within the moodle VLE platform to provide students with a customised study pathway. Different pathways are structured depending on learners’ responses to hinge questions, that are carefully designed around a key subset of core concepts, to assess learners’ capabilities and direct them to a choice of suitable next steps thus enabling learners to bridge gaps in their knowledge and gain confidence in independent study skills.</p> <p>We will show how we’ve used moodle to transform the threshold concept as proposed by Meyer &amp; Land (2003) from being universal to being more specific, temporal and at an individual level. Mobius provides a personalised learning experience where students are directed to support, depth, examples, enrichment and extension activities tailored to their individual requirements and when they need it. In addition we will provide a preliminary evaluation based on feedback from current learners.</p> <p>The technology used in Mobius incorporates the moodle lesson tool and allows for easy transferability so that other disciplines are able to use a template to create their own supportive pathways through relevant content.</p>
<b>Session Description</b>	We will describe the pedagogic and technological factors in the design of Mobius, a maths learning tool within the moodle VLE.

Mobius adapts to individuals' current learning to provide the scaffolding required for them to navigate successfully through key concepts whilst physically away from the classroom.

At the University of Warwick, we recognised the need for a maths resource that bridges prior learning to assumed knowledge for prospective students without traditional qualifications or those with gaps in their education.

Interest in the Mobius tool has grown throughout STEM departments since it has become clear that new students joining the first year of their courses will have had a significant amount of time away from the maths classroom and may need to refresh basics, plug gaps and/or build confidence before starting their university courses.

It is clear that students require more guidance and structure than exists in the standard flipped classroom set up. Watching an hour-long lecture may lead to an excess in cognitive load for students who are missing the fundamentals assumed in the lecture or equally, for students who are waiting for something to be taught that is not already known (Mayer and Moreno, 2003).

The objective of the Mobius project is to leverage moodle functionality to determine what students already know to be able to provide them with the right level of challenge by automated individualisation through their learning whilst catching any misconceptions and providing the relevant support when it is needed.

The quality of the Mobius resource is contingent on providing nuanced individualisation via learners' responses to carefully designed hinge questions (William, 2018) that diagnose what is needed next by the learner.

The hinge questions are based on threshold concepts (Meyer and Land, 2003), those troublesome core concepts that, once understood, can positively and irreversibly transform the learner's perception and are considered essential to mastery of the subject.

However, the threshold concept idea proposed by Meyer and Land does not take into account the fact that each individual learner experiences understanding of concepts differently, as borne out by strong personal experience of transformative episodes in our own learning and that of our students. Mobius, in essence, transforms the threshold concept from being universal (as proposed by Meyer and Land) to being more specific, temporal and at an individual level.

Mobius thus provides a high quality virtual learning experience with just the right amount of challenge to maintain momentum and progress on an individualised route through key threshold concepts.

This individualisation allows users to make progress at the rate that is right for them, offering flexibility of pace and place whilst providing the appropriate scaffolding needed to fill gaps in knowledge or extend to next steps or deeper understanding.

As well as outlining the pedagogical theory underpinning the Mobius learning tool, we will describe how we have used the technology

available to us through the Moodle virtual learning environment to provide the responsiveness required to make this online resource a reality and how our templated resource facilitates easy transferability to other disciplines.

We will showcase the resource by taking participants on a learner journey illustrating how Mobius uses learners' responses to hinge questions to determine the best direction for next steps in learning from a choice of support, enrichment, depth, practice, examples or common misconceptions. In addition, we will provide a preliminary evaluation of the resource based on feedback from current learners.



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
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Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	4
<b>Title of Abstract:</b>	Digital Transformation- a rapid approach to transforming curriculum delivery
<b>Presenters (lead &amp; co-presenters)</b>	Adele Cushing Zad Santospirito
<b>Institution</b>	Birkbeck, University of London
<b>Format</b>	Case study
<b>Abstract</b>	<p>In March 2020, a long-term strategy to increasingly integrate digital education across the curriculum at Birkbeck, University of London became a lot shorter! Like most Universities, when the pandemic hit we moved into 'emergency online teaching' mode. However, we also took the opportunity to plan for an approach to consistently transform our modules using proven design methodology (i.e. Diana Laurillard's Conversational Framework) into a more flexible format, also meeting key legislative requirements (e.g accessibility). We supported lecturers with an online scaffold from which they could confidently design/review/adjust online content to support students during a stressful period of learning. Supported by an in-house developed module design and timetabling system called Swiftfoot, our development was innovative, evolutionary and rapid. A collegiate approach of early decisions, leadership, change management, communication, new roles in support, training and systems development/implementation provided the desired consistent design and delivery. The transformation has subsequently been well received and widely praised by students. It has also provided staff with enhanced technical knowledge to develop online learning resources. Our case study will inform you of the tools and theory we adopted in this process.</p>

## Session Description

Presentation of the context and approach to Birkbeck's Digital Transformation, the methods used to undertake the transformation and an overview of the institution-wide projects aims and methodology. (5 Minutes) Demonstration of the integrated, innovative internally developed systems created to support the transformation process. This will take the form of a demonstration of the in-house developed software "SwiftFoot": a module design and timetabling tool that combines a pedagogical design framework used by academic staff to redesign their modules for online delivery with a timetabling system to generate live sessions linked to both student timetables and our virtual learning environment (Moodle). From the module designs in Swiftfoot we deployed consistent course templates into Moodle that support accessibility and embedded online learning methodology. We will demonstrate the template and outline the thinking that went into its creation, plus its contributory impact to the digital transformation. (10 Minutes) Demonstrate the outcomes of the digital transformation and training, showing the results of the transformation project on our online resources and the effect that the training. Also the tools and activities Lecturers used to encourage student engagement in their modules both synchronously and asynchronously. (10 Minutes) Discussion of student response to the online provision during 20/21 and plans for 21/22. (5 Minutes)



# APT 2021

19<sup>th</sup> Academic Practice and Technology Conference (APT2021)  
Co-hosted online by the London School of Economics & Political Science,  
Imperial College London and University College London.  
Friday 2<sup>nd</sup> July 2021

<b>Session Start Time</b>	13:10
<b>Breakout Room</b>	3
<b>Title of Abstract:</b>	Collaborative Online Mapping to Promote a Sense of Belonging.
<b>Presenters (lead &amp; co-presenters)</b>	Nicholas Bowskill Melody Harrogate, David Hall, Lucy Hutchinson
<b>Institution</b>	University of Derby
<b>Format</b>	Case study
<b>Abstract</b>	<p>Collaborative mapping is a shared digital technology supporting geo-tagging or crowdsourcing activities. Users can annotate a shared online digital map with markers, text, video and images. Users can also view the inputs of others on the same map. Common applications are for disaster mapping, story-telling, and geographical or environmental projects. They are seldom used in formal courses in teacher education. They are rarely used with affective outcomes in mind.</p> <p>Participant numbers in an online module at University of Derby Online Learning (UDOL) recently doubled over a year from January 2020 to January 2021. This presented a specific challenge to promote inclusion and engagement for a highly distributed multicultural group most of whom were busy teachers. Within a range of other added activities, we explored the addition of collaborative online maps to help participants visualise the group to themselves and generate a sense of belonging. This presentation presents empirical research involving semi-structured interviews with 10 teacher-participants. Early findings include greater group-awareness, diversity as a group-asset, and transfer of learning arising from first-hand experience of togetherness. We outline an agenda for further research and development of practice using online mapping technology.</p>

Session Description