



APT 2021

19th 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 2nd July 2021

Session Start Time	13:10
Breakout Room	4
Title of Abstract:	“All the world’s a stage” – the Open Broadcaster Software (OBS) as enabling technology to overcome restrictions in online teaching
Presenters (lead & co-presenters)	Gerhard Kristandl
Institution	University of Greenwich
Format	Case study
Abstract	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.
Session Description	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.



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Title of Abstract:	Engineering Minecraft: hands-on & collaborative leaning in a virtual lab
Presenters (lead & co-presenters)	Dr Rebecca Yerworth
Institution	UCL
Format	Case study
Abstract	<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].



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Title of Abstract:	Digital Transformation- a rapid approach to transforming curriculum delivery
Presenters (lead & co-presenters)	Adele Cushing Zad Santospirito
Institution	Birkbeck, University of London
Format	Case study
Abstract	<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)