Adventures in Synchronous Online Teaching

Experiences in Digital Learning Webinar series event

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By Clare Sansom, CDE Fellow

During the academic year 2020-21 the Centre for Distance Education is collaborating with Goldsmith's College in London and the University of London Institute in Paris to run a series of monthly webinars under the banner 'Experiences in Digital Learning'. The second of these, held on 4th November, explored the issue of synchronous teaching: that is, teaching in which the lecturer and students inhabit the same timeframe, if not the same geographical space or time zone.

Introducing the expert panel, **Linda Amrane-Cooper**, Head of the CDE, highlighted a very recent JISC report into the 'grand adventure' of digital learning that the pandemic has thrust us into. The report's authors concluded that

- **Students** prefer a blend of digital and face-to-face learning because it is convenient and easy to access
- **Lecturers** see opportunities to improve their teaching through using a wide range of flexible learning activities
- **Higher education leaders** appreciate the opportunities that 'anytime, anywhere' teaching offers to break down geographical barriers and extend the reach of their institutions.

The session included three short presentations. A double act – almost literally – from **Mark d'Inverno** and **Matt Yee-King** from Goldsmith's was followed by talks from CDE Fellow Simon Rofe of SOAS and from **Thierry Koskielniak** of the Conservatoire National des Arts et Métiers in Paris.

Maths and computing are, perhaps, not the easiest subjects to make fun, particularly in the fully digital world. **Mark d'Inverno**, who is an amateur jazz musician as well as an experienced educator, showed in a short but highly engaging presentation how he does just this, emphasising **digital presence** and **performance**.

So, what is 'good digital presence' and what do you need to do to build it? Firstly, you need good quality **sound** – which, as a musician, he feels passionately about. A first-class microphone produces massively better sound than a standard laptop. A second camera that allows you to cut between scenes and provide different **visual** images will help engage the students, and an appropriate **environment** with no distractions will help them focus on the presentation. When teaching, improvisation is key; he often works out equations on a whiteboard 'on the fly' and admits that he occasionally gets them wrong. This, he said, just adds to the sense of theatre.

Matt Yee-King, the programme leader for the MSc in Computer Science at Goldsmith's and a close collaborator of Mark's, ended their joint session by taking delegates on a virtual tour of a fully functioning film studio there. This was set up just before lockdown, and it enables lecturers to make their own films, including talks to be delivered live. In his own subject, these facilities can be used to demonstrate writing and running computer code in real time, engaging students in what is usually thought of as rather a dry subject.

Questions to Mark and Matt focused mainly on two topics: accessibility, both of the kit to staff and of the resulting videos to students who may have poor quality connections, and lecturers' lack of

confidence. Mark emphasised that it is now possible to set up a fully functioning studio for less than £1,000 – admittedly, how accessible that is depends on who is paying – and that sessions that can either be watched live or downloaded will reach most students. And as for confidence: the only answer is practice, and more practice.

Simon Rolfe began his talk by praising the previous speakers and apologising for his basic setup. However, his 'home office' gives his students a sense of who he is (complete with his bicycle and a Father's Day card from his son) and may encourage students to share their own screens. Taking up the musical theme, he quoted the German electronic musician Florian Schneider: "sometimes we play the music, sometimes the music plays us, and sometimes it just plays". Applying this to education, sometimes we engage in learning and sometimes learning happens to us.

He then focused on the importance of building learning communities online, and how synchronous and asynchronous methods are best used together to promote them. This community is something we could almost take for granted when students and teachers met within the same four walls: it needs to be worked on in the digital space, but it can be achieved. The breakout groups now available in Zoom and Teams work very well for small group discussions and activities, and if the whole student group covers many time zones these can allow students to work at the times that suit them best.

The discussion focused on the challenge of getting students to engage fully in the activities when they work to different schedules, may lack confidence or have problems with the technology. Building relationships of trust is key to this, and Simon commented that he often finds he knows online students better than those he meets in face-to-face lectures.

Thierry Koskielniak turned the focus back to technology with a presentation on the use of virtual reality in teaching. Virtual reality headsets have been around for over a decade, but they are only now becoming affordable for educators outside large companies' training programmes. You can now buy a perfectly good headset for a few hundred Euros. They are becoming widely used in gaming and for cultural experiences, which have proved particularly important during the pandemic. If a museum is closed, the next best thing may be to walk around its exhibition space in virtual reality.

These affordable headsets are also increasingly used in education and training. The Conservatoire National des Arts et Métiers, rather like Birkbeck in London, offers vocational education to working people in the evenings and at weekends. Virtual reality is being used there to train engineers to use and maintain complex equipment, working through scenarios that it would be difficult, expensive or both to recreate in the real world. Rather than moving an avatar using a trackball or mouse, the trainees move their hands as they would while manipulating the physical kit, and the avatar responds accordingly.

In the discussion, delegates discussed the pros and cons of different headsets and also asked about the online virtual world Second Life, which is still occasionally used in teaching but is losing popularity. The main difference is that the Second Life world is still a flat screen; the immersive virtual scenarios that are now possible are much more memorable and engaging for learners.

Linda summed up this fascinating session as two exciting presentations focusing on technology that is now, finally, becoming affordable and accessible to educators, and Simon's more humanist perspective sandwiched between the two to provide an excellent contrast. All delegates will have learned a great deal.