Using Echo360 for effective lecture capture in different settings: maintaining forward momentum

This case study describes the increased use of lecture capture, in terms of synchronous and asynchronous content. It also discusses the positives and the challenges of lecture capture, and highlights some of the possible avenues to be explored in the future.

The University was, pre-COVID-19, trialling its use with a select number of staff on the Echo360 platform – this then completely altered when we moved to online teaching, with a huge increase in the number of staff using the platform to record content.

Now that we are back teaching on campus, the impetus for recording lectures is still present, both from an accessibility and a pedagogical perspective. However, are the overarching reasons for lecture capture still the same, or do we have to re-assess the mechanisms and reasons for engagement from both students and staff?

Lecture capture, pre-Covid, was trialled to provide an accessible route for teaching which would enable students to engage with material within and outside the lecture theatre, ensuring equality of access for students within a particular cohort, and allowing engagement with resources as study aids and revision tools at times to suit students.

As soon as teaching moved online due to the pandemic, this technology proved invaluable for recording online lectures for those students who could not attend at a scheduled time for their own reasons, and also for producing asynchronous materials. Both the recorded and the asynchronous materials formed the basis of learning resources for students to access and engage with in their own time, encouraging self-directed learning and time management (whilst recognising that this also exacerbates issues where time management was, perhaps, a skill to be developed).

However, are the overarching reasons for lecture capture still the same, or do we have to re-assess the mechanisms and reasons for engagement from both students and staff?

Teaching has returned, in the main, to campus, and following the sharp increase in staff use of Echo360 (and the support provided), the direction of engagement with lecture capture has altered, and the impetus has decreased, perhaps understandably.

Arguably, lecture capture has benefits beyond simply "watching the lecture again for revision", and the momentum gained during the pandemic should perhaps not be allowed to dissipate, but instead used to explore other avenues of interaction with the technology.

In the late spring and summer of 2020, the short-notice full-scale move to lecture capture meant that staff were required to learn, at short notice, a new way of delivering their teaching materials.

As with any such wholesale change, this was rarely a straightforward matter. Staff were concerned by many facets of the change, including:

- "When will I find the time to learn this new platform/method of teaching?"
- "If my lectures are recorded, will I suddenly become dispensable?"
- "Recorded lectures will mean that students don't attend"

Even with those individuals excited to try the new technology, the issue of "digital poverty" raised its head – staff were unused to working at home, and hardware/software issues meant that staff could not necessarily even access the software, or did not have appropriate tools for recording.

In the late spring and summer of 2020, the short-notice full-scale move to lecture capture meant that staff were required to learn, at short notice, a new way of delivering their teaching materials.

Over the course of a few months, these issues were ironed out as new operating systems were rolled out along with appropriate hardware, and in order to support staff in the move to online teaching (including lecture capture), institutional academic support roles were created, in the form of six Digital Learning Champions (DLC's).

As a DLC, and later an Echo360 Academic Champion, my role was (and is) to work with the team of Digital Learning Developers to provide tailored academic support to staff specifically in the rollout of Echo360 into teaching, providing training and support as a colleague "at the coal face", leading by example when using the platform for creating teaching resources, and feeding into the new University digital strategy.

Use of lecture capture increased sharply at the start of the academic year, with staff embracing the move (albeit reluctantly in some cases!) as it was evident that this was the best way forward for the new format of teaching delivery, providing materials accessible to students in hugely varied situations.

As the year moved on, the uptake decreased as expected as teaching waned into December 2020, then picked up again in January 2021 (only to drop off towards April).

The academic year 2021-22, however, has not seen that dramatic increase in usage again – rather, the type of usage has completely altered – because we are back on campus and teaching face-to-face, and recording lectures from the lectern, not the home office. This has come with its own challenges – equipping teaching spaces with necessary hardware, and supporting staff to be competent and comfortable with the software and equipment.

We have also seen inconsistencies in the availability across programmes – programme cohorts who consistently utilise the large lecture theatres have disproportionate access to lecture recording, while smaller programmes, due to the lack of equipment in smaller rooms, miss out on the available opportunities.

Likewise, many less-formal activities – tutorials, workshops or seminars – which would have been recorded the previous year to allow students full accessibility from home, are no longer recorded, because the expectation is that students would be attending in person.

The danger, I believe, is that due to these challenges, in the face of an already difficult teaching environment due to the ongoing pandemic, we now find ourselves slipping back into "old ways", when perhaps we should be embracing the positive changes, including lecture capture and its myriad benefits.

One of those is the increased interactivity provided by the Echo360 platform in terms of student engagement with the learning materials.

The general consensus is that students are passive in this process – accessing and utilising the videos, perhaps if unable to physically attend, perhaps for revision, but not engaging in an interactive manner. However, there is potential for interactivity, and the next step is to enable students to be far more proactive.

The interactive elements available within the Echo360 platform include the ability to flag specific points in a video to demonstrate confusion over a specific concept or point; discussion and question boards, again directing the query to a specific point on the video, and polling questions to check understanding and engagement during a video. Students can also access transcripts, and make their own notes on lectures whilst watching the video, which can then be downloaded as a text file.

Some of the benefits of these interactive components are self-evident - allowing students to check their understanding, to ask for help with a specific concept and to highlight particular areas where they are perhaps struggling. The less obvious benefits might include maintaining attention by asking questions which need to be answered before the video continues; demonstrating that students "are not alone" if they are confused on a particular point; the safety of anonymity among peers when posting a question (but where identities are available to tutor if direct follow-up is required).

Whilst these benefits may seem self-evident, one point that we really need to be aware of is that our students are rarely as digitally literate as we assume. The additional problem of

digital poverty means that assumptions regarding accessibility of materials and the ability to utilise the interactive elements may not actually be a reality for all students.

This is also very much a two way but also cyclical process – initially staff input to produce videos; then student input to access the materials, flag concerns or issues; back to staff input to check for engagement and provide directed support if needed (for example in tutorials, etc); and so on. This, therefore, requires "buy-in" from both sides – time, always at a premium, needs to be invested. However, with appropriate management, these tools could prove extremely effective for engaging learners, and providing effective support.

I am working with several colleagues, with excellent support from the University's Digital Learning Developers, to trial the use of these interactive elements with groups of students in the first 3 years of the Clinical Sciences programme.

While there have been teething troubles and challenges seen since the start of online teaching, one of the most remarkable successes must be the resilience of staff in getting to grips with this new technology, and making it work in a wide and diverse array of situations and circumstances.

There has been extremely positive feedback noted from both students and staff in terms of the accessibility of the resources created, and it is amazing to see the wealth of resources created by staff in often highly constrained circumstances – pre-recorded demonstrations from mobile phones, recorded online teaching sessions with students actively engaging, or the more didactic taught sessions. These results have been replicated and are seen across many institutions forced into the same sudden changes at the end of the 2019-20 academic year, but this in itself provides a rich source of effective teaching practice which we can both learn from and add to.

The flexibility in delivery of recorded materials, allowing students to access resources around their personal circumstances (with many sharing study spaces, working, or caring for family members) has demonstrably eased the burden of online learning for many students, and I believe allowed the majority of students to successfully complete their studies in a year when it might otherwise have been impossible. These benefits will continue, with students, since

being able to access not just notes from a lecture, but actually re-visiting the lecture itself for revision, or for solidifying knowledge, is invaluable.

Challenges...

The primary challenges would include:

- **Digital literacy:** of staff (to produce the resources) and students (to effectively use them);
- **Significant time investment** required for staff
- **Digital poverty** for both staff and students in widely differing home environments
- **Equipment and access to the technology:** not available to all
- **Inequality of use/access on campus:** across faculties and programmes (especially smaller ones)

These challenges, while ongoing, have been repeatedly met and overcome in many different ways by the hard work and tenacity of staff, both academic and support staff, in order to provide their students with appropriate and effective learning resources. The next major challenge will be maintaining the momentum, and using that impetus to drive future developments and successes.

Whilst widely used in some areas, there remains huge potential for increased engagement with the technology in other areas, where there are currently only small, isolated pockets of use. This is of course very dependent on types of teaching, also on which programmes use the Echo360 enabled lecture theatres for on campus lecture capture, as previously mentioned.

The slow change in teaching delivery, ongoing at present, is the gradual move towards less didactic lecturing and more engaging and interactive sessions, leading towards "flipped"

teaching – utilising the different forms of lecture capture to provide preparatory materials would free up time in taught sessions for more meaningful and deeper engagement with taught content by students.

A move towards equipping ALL teaching spaces with lecture capture equipment, while a bold dream, is essential for providing consistent and "pain-free" access to recording facilities for staff across all programmes.

Finally, the move towards increased engagement from students, using the different recorded content as ongoing and active resources rather than a full stop, or a line drawn under a lecture, promises to be another extremely exciting area for development. Expected challenges include lack of engagement from students, but also from staff who are comfortable with simply posting content to be used as revision materials, or who simply do not have the time to engage in the back-and-forth to determine how and where their students may need focussed and directed support.

The effective use of lecture capture is a rapidly expanding pedagogical field, and as an Echo360 Academic Champion I have shared experiences and methods with colleagues from different institutions within and beyond the UK. Closer to home, regular staff training and development events and "Show and TEL" group events provide useful platforms from which to disseminate effective practice.

Going forward, the development of stronger links between academics across different Faculties, with student ambassadors and whole student cohorts, will allow the more effective dissemination of hints, tips and effective teaching and learning practice using this incredibly powerful technology.

Key words: themes and topic

Lecture capture; recording; Echo360; online teaching