

Describing Learning Capture

Learning Capture is an expansion of the concept of Lecture Capture, and in many institutions has surpassed it as a project goal. Rather than simply taking course content delivered in Format A (generally face-to-face) and containing it in Format B (video, audio etc.) for posterity, catch-up, or revision – all valid purposes, of course – Learning Capture seeks to add pedagogical dimensions to the structure and delivery of the whole learning experience, from teaching to assessment. Learning Capture empowers lecturers in the design of subject-specific learning experiences.

For example, an audio Lecture Capture file would allow a student to listen to last week's lecture. Whether the student was there or not, they may well benefit from taking in the content, or from being able to take more detailed notes on the topic, or to rewind and replay key sections. Learning Capture, however, suggests a more holistic approach, considering the student before, during and after the lectures, tutorials and assignments, allowing for a wider variety of pedagogical styles and methods of delivery – the idea is to allow teaching to thrive whatever the student's situation – present, absent, distant, struggling or with additional needs.

By capturing learning, and extending opportunities for learning, we allow technology to fill in logistical gaps and meet student needs. At the same time, judicious selection of compatible technology, and coherent deployment and support of said technology allows staff to gain greater control and understanding of their courses and content, to better understand their students' needs and capabilities, and to work in ways that best suit them (for example, some lecturers find creating audio feedback significantly faster and more effective than writing remarks). Finally, by teaching inside good technological practice, we empower students with a greater degree of technological competence and creativity, valuable across all metrics of employment and entrepreneurship.

Below are a series of pedagogical elements which fall under, or are enabled by Learning Capture.

Lecture capture – video/audio/screen capture of a given lecture, either before an audience of students, or privately recorded.

Lecture streaming – live lectures, allowing distance and blended students to 'attend' lectures as they take place.

Seminar and tutorial capture – video/audio recording of class or group discussions.

Performance capture – video of demonstrations, e.g. practical science experiments, physical demonstration such as in sports rehab, dance or drama performances, anything that might be performed either to, or by a student.

Event capture – guest speakers and lecturers, public events, round tables, academic presentations, conferences, etc.

Instructional or informative video – short briefings or explanatory videos, e.g. outlining assignment strategy, course setup, course updates etc.

Revision aids – e.g. designed recordings of lecture highlights, outlines of key points. Could be distributed before or after classes, or released as a refresher at the end of a course.

Multimedia assignments – student-captured/created video, audio, or screen capture to fulfil an assignment.

Resource sharing – uploading and sharing content (either institution-created or third party) e.g. to students via the VLE, or between courses.

Assignment capture – recording presentations, groupwork, verbal assessment (e.g. vivas), interviews, teaching sessions, practical work, etc. Required in some instances for external examiners.

Multimedia feedback – video, audio or screen captured feedback, allowing lecturers to commentate on a piece of submitted work of any nature, explaining their views as they go.

Accessible learning input – enabling lecture subtitling for students with additional hearing or processing requirements.

Accessible learning output – allowing, in certain cases, students for whom speech is a more accessible medium than the written word the option to submit audio or video instead of written work.

Marketing and engagement – creating and capturing content to promote St. Mary's teaching, learning and talent, e.g. open days, conferences, student performances, sporting events, best practice highlights, academic presentations, flagship lectures, taster sessions.

A brief list of teaching scenarios benefiting from Learning Capture technology/policy:

Pre-session content: the opportunity to create audio/video introducing the outline of a forthcoming lecture or seminar, introducing approaches that will be discussed, or using a TV-style "Previously on LAW4001..." approach to tie previous content to forthcoming content. This could be a supplement to 'doing the reading', or, indeed, a replacement of it where appropriate.

Flipped classroom: the student takes in source material, e.g. key terms, arguments or facts, prior to a teaching session, allowing the lecturer to move straight to examining the content, or, in a seminar, discussing it.

Post-session content: creating highlights videos, or brief commentaries over the slides used in lectures enables students to revise efficiently, and ensures students are focused on the right 'takeaways' from the session.

Assignment trailers: a brief video or audio explanation of an assignment, which pre-emptively answers any FAQs can be a reassuring aid to students, and spare lecturers endless repetition on an individual basis.

If, in tutorials, it becomes apparent that a number of students have the same issue, a lecturer might record a 5-10 minute video explaining the issue, or advising next steps.

Assessment variety: to increase engagement and facilitate the development of a range of skills and competencies, students can be tasked with creating videos, giving journalistic-style summaries of content, creating role plays or dialogues, submitting a spoken essay, performing a piece of creative work, and so much more.

What do we already do at St. Mary's?

We currently have no institutionally-established or enforced guidelines for learning capture, for video, audio or mixed media assignments, or guidelines around the use of own devices. Part of the Learning Capture project should include the creation of such guidelines and policy, as well as the development of staff and student guides for any new or emerging technology. I have compiled a few examples of other institutions' guides and policy sites in the HE Best Practice document, sent alongside this.

As things stand, a significant diversity of learning capture methods are used at St. Mary's, in a wide variety of ways. Lecturers have, in some cases, brought previous experience with them, have created workarounds to allow them to try new approaches, or have simply patched together a variety of third party programmes to fulfil requirements. The limitations of this are that it's difficult for TEL/IT to support staff and students with such a variety of programmes, and it can be confusing for students. Often, too, these workarounds are carried out outside MyModules, which is not ideal, both for support and logistical reasons. Generally, our aim is to keep all learning accessible through MyModules, wherever possible.

Currently, most of our video content is handled by Planet eStream – branded as MyMedia, Planet eStream provides four key functions to St. Mary's. It is the main existing service we expect to be extended, surpassed or replaced over the duration of this project.

1. MyMedia is MyModules' repository for video content, allowing students to upload video submissions to assignment inboxes. MyModules then gives staff an interface in which to view and grade submissions, as well as the option to record video/audio feedback.
2. It provides video hosting space for staff, allowing them to upload and link to videos directly within their modules – whether self-made, or third party.
3. Provides staff access to the BBC Archive (selected TV/radio programmes dating back to 1985).
4. Offers the functionality to record broadcast television from Freeview and make it available through modules.

Limitations: students can only upload files up to 500MB, the account setup is rather clunky and the interface is not at all intuitive, making it difficult to introduce staff to good use of the system. Adding third party videos into the system to display to students is similarly complex, and the BBC Archive is fairly limited. MyMedia has never been fully rolled out as the support required to upskill staff to a level of everyday functionality would be extensive. Contract expires in July; ideally we would like learning capture technology in conjunction with improved resource technology (perhaps Talis Player?) to surpass this.

Existing examples of learning capture at St. Mary's

(Please note: this is by no means an exhaustive list, and is, owing to time constraints, drafted speedily from my own experience as the EHSS/IoT Learning Technologist in 2018. I would be happy to present further details in the New Year, as I'm certain there are many more examples across the university.)




Live lectures: lecture streaming takes place in postgrad Education courses, including MA Education, Leadership and Change and MA Education & Pedagogy. Distance and blended learning students from China, Hong Kong, Thailand, the Netherlands and Dubai join a class of 20+ in-person students via WebEx (soon to be superseded by Skype For Business) using a webcam with a teacher's eye view of the classroom.

The distance students, predominantly teachers in English and American International Schools, greatly value study in an English classroom, and domestic students report significant added value in having the ability to discuss world teaching practice and experience.

Video content: Many courses use a wide variety of video content. At the moment, there is no clear path to video inclusion in MyModules, so staff have developed a number of approaches based on their own experience and familiarity with external resources, such as YouTube, or by, with TEL assistance, uploading into MyMedia.

Programmes like Catholic School Leadership offer modules whose lectures are delivered entirely in video format to distance learners – where content doesn't change, these can be rolled over from one year to the next, minimising content creation time and creating consistency between years.

Flipped classroom: whilst almost all courses include the traditional "doing the reading" element in some form or other, prior to lectures and seminars, modules like Applied Neuromechanics make excellent use of pre-lecture video, releasing teaching content to be watched before each lecture. The lecturer introduces key words, phrases and concepts that will be referred to during the next lecture, allowing them to, when working face-to-face with students, move straight into the content of the session. Students then have the opportunity to learn new elements on their own terms, rather than risking cognitive overload.

 MUST WATCH BEFORE 2nd OCT LECTURE : Video 1.	150 views by 72 users
 MUST WATCH BEFORE 2nd OCT LECTURE: VIDEO 2	131 views by 65 users
 MUST WATCH BEFORE 2nd OCT LECTURE : VIDEO 3	121 views by 65 users

MyModules' Activity Report allows us to see these, the viewing statistics for these videos – with 81 students active on the course, this is a good, high rate of engagement, with, clearly, several students watching videos more than once.

Summary videos are similarly effective, and are used to good effect in a number of St. Mary's courses including Sports Rehab, and Physiotherapy.

Media Assignments: Sports Journalism make excellent use of video submissions to train students in the discipline they're studying, with assignments including creating trailers for sporting events,

and videoed match reports of a sporting fixture of their choice. These may seem obvious requirements for this course, given its discipline, but we have examples from across the university, including Education students videoing teaching sessions as evidence for their professional portfolios, Media Arts students creating podcasts, Strength and Conditioning students submitting video presentations, Business students submitting group presentations, and many more.

Own device engagement: Secondary PGCE use a variety of apps and device-based teaching examples (videos, polls, scenarios etc.) in their lectures. An interesting pedagogically-focused solution to the potential accessibility issue of BYOD (Bring Your Own Device – whereby a student without a smartphone or pad may be or feel excluded) is that students are always asked to work in pairs for these tasks, which, the lecturer tells me, adds another layer of learning to the task.

Padlet: Foundation students use Padlet in their lectures, an online collage software enabling creation of collaborative multimedia documents (e.g. https://padlet.com/bob_hope/fymtprqkq0nl). This allows live capture of learning, and encourages collaborative thinking and peer review. TEL hope to run a focused pilot of Padlet with this course in January 2019.

As the list shows, there is no single provision for every element here, but an overarching scope for embedding good technological practice throughout each stage of learning. There is a significant appetite for varying our pedagogical approach, with the TEL Team receiving regular requests for more video, audio, poll, distance, and engagement solutions. Whilst it's true that resistance to certain elements of this exist in many areas, a good bet for the enthusiastic response to Learning Capture as a whole would be to have a suite of pedagogically-focused offerings which could demonstrably bring something to every course, and any student.