N-TUTORR WP3.2 VIDEO WORKING GROUP

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Successful video solution use case scenarios from across the sector

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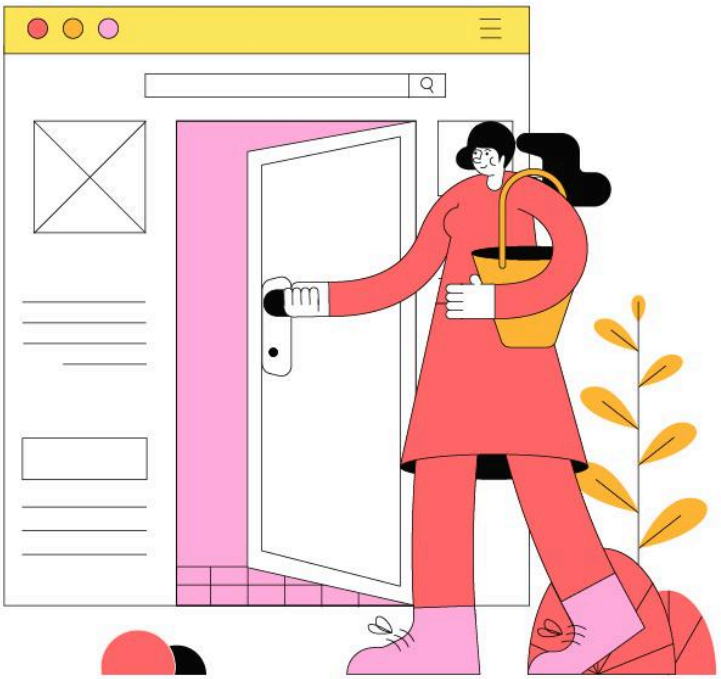
TUS
Technological University of the Shannon:
Midlands Midwest
Ollscoil Teicneolaíochta na Sionainne:
Lár Tíre Iarthar Láir

1. Introduction

Overview

This document presents a number of use cases focused on the implementation and use of a range of video solutions in Irish higher education institutions, developed by members of the N-TUTORR Work Package 3.2 video working group.



Development of the Use Cases

The use cases developed in this report were done so by N-Tutorr partners. This “range of specific software solutions and categories” was agreed by the working group and was approved by the N-TUTORR steering group meeting and has formed the key components and results of this research instrument.

The categories are:

- Screen capture software
- Video management software
- Video conferencing software
- Classroom capture software
- Video editing software
- Moving image software
- Immersive video software
- Video analytics software
- XR software

A representative from each Ntutorr partner has provided at least one use case, comprising 7 HEIs in total:

1. Technological University Dublin (TUD)
2. Munster Technological University (MTU)
3. Technological University of the Shannon (TUS)
4. The Institute of Art, Design and Technology (IADT)
5. Dundalk Institute of Technology (DKIT)
6. Atlantic Technological University (ATU)
7. South East Technological University (SETU)

The use cases selected have been based on a careful selection of the video software solutions and categories within each HEI.

The video solutions selected are felt to be the most relevant and/ or important at present or in the future. A number of use cases have focused on the same software within different HEIs in order to provide context and comprehensiveness.

2. Use Cases

Screen Capture Software

What is screen capture software?

Screen capture software, also known as screen recording software or screencasting software, refers to programs or applications designed to capture and record everything displayed on a computer screen.

This includes capturing video recordings of activities, such as software demonstrations, presentations, tutorials, or gameplay, as well as capturing still images of specific screen content. Screen capture software typically allows users to customise recording settings and to edit recordings.

Use Case 1

This use case was compiled by Technological University Dublin

What software do you use for Screen Capture Software in your HEI?

ScreenPal

How do stakeholders access and/ or use your Screen Capture Software solution?

Staff: Our licence covers all staff. They log in via SSO. The first time they do this is creates their account and assigns a licence. They use it to create screencasts i.e. video tutorials, and/or video content for their students. Quizzes and other interactions can also be embedded. It is integrated with our VLE Brightspace so quiz grades can be pulled back into the Brightspace gradebook.

Students: Staff can make a ScreenPal assignment available to students via Brightspace. Through this assignment students can access ScreenPal to create a screencast and submit it to their lecturer's ScreenPal channel. As students are not assigned an individual licence they cannot use the institutional ScreenPal plan outside of a Brightspace assignment to create other screencasts/videos.

What is the Screen Capture Software solution used for in your HEI?

TU Dublin does not have a video management platform like Panopto or Kaltura.

What needs in your HEI does the Screen Capture Software solution address?

Staff needed to be able to easily create cloud-hosted interactive video content for their students, and facilitate video assignments. ScreenPal provides this service.

How does the Screen Capture Software solution support teaching and learning?

ScreenPal allows staff to create video tutorials, other interactive video based content, and video assignments for their students to support student their learning. This helps generate additional student engagement and active learning.

When was the Screen Capture Software solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

ScreenPal was initially rolled out in 2020 to help staff teach online during Covid. No pilot was run ahead of this rollout.

What training or supports are in place for the Screen Capture Software solution?

We have information on the TU Dublin website that helps staff get started. Training workshops are run regularly to explore the most heavily used features and the creation of interactive quizzes. And staff are directed to the short bitesized targeted support videos provided by ScreenPal.

Does the Screen Capture Software solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

ScreenPal is integrated with our VLE Brightspace allowing staff to embed interactive quizzes and video assignments directly into Brightspace.

Can you think of any innovative ways individuals or units in your HEI have used Screen Capture Software solution?

ScreenPal is a small application with limited features. It has been used to great effect by staff to introduce themselves and module content; instructional 'How To' Videos; provide Student/Group Feedback; Demonstrate Problems & Solutions etc.

Have you received any feedback on the Screen Capture Software solution in your HEI?

Yes. We surveyed users in 2023. Feedback was very positive and there was no desire at that time for a system that would provide additional functionality over and above what ScreenPal provides.

Does the Screen Capture Software solution in your HEI address or enhance any accessibility issues?

Staff can easily add video captions when they use ScreenPal.

Are there any other elements of note relating to your Screen Capture Software solution which you have experienced or observed?

No

What recommendations would you have to other HEIs looking to introduce or improve a Screen Capture Software solution in their institution?

Really listen to what your staff need in their video solution and provide a solution that will address those. Sometimes those needs are relatively simple and there may be

no need to procure large complicated and expensive systems with steep learning curves that provide way more functionality than will ever be used by the majority of staff.

Do you have any other comments or observations regarding Screen capture for higher education?

None

Use Case 2

This use case was compiled by Munster Technological University

What software do you use for Screen capture software in your HEI?

Screenpal

How do stakeholders access and/ or use your Screen capture software solution?

The solution is primarily offered for MTU staff (both staff who teach and PMSS staff). The resource is freely available to any staff members who wish to use it. It can be accessed and installed via an online form, through which users can request a licence for a full version of the screenpal software. Once they have filled in the form, they are issued an email with a user key, password and guidelines on installation.

The MTU instance of screenpal is available on a monthly “rolling” licence, which means that the availability of professional screenpal licences “reset” each month. This means that if the number of requests for professional licences are in excess of the number of licence MTU has available, users can re-apply and claim a professional licence the following month.

What is the Screen capture software solution used for in your HEI?

The screen capture software used in MTU is screenpal (https://screenpal.com).

Screenpal was initially founded in 2006 under the name Screencast-O-Matic and rebranded to “screenpal” in 2023. The software consists of screen recording functionality which allows for screens (or only sections of same), microphones and webcams and to be recorded either by themselves or simultaneously.

The software integrates with MTU's video conferencing solution - Zoom - and MTU's Virtual Learning Environment (VLE) - Canvas.

What needs in your HEI does the Screen capture software solution address?

The primary role of screen capture software in MTU relates to the development of digital resources. Video recordings developed with screen software are typically referred to as "screencasts". These are essentially recordings of a computer screen which are captured while on-screen activities are being carried out.

Typical uses of screen capture software include activities such as showing a presentation of some other form of content, demonstrating how to use, or how to complete a specific task using, a particular software, navigating an online platform or website, changing computer settings, etc. In addition, screencasts can be used for feedback purposes to present, i.e., a student's assessment submission on-screen while a lecturer speaks aloud to offer auditory feedback simultaneously.

Screencasts are valuable tools for supporting learning as they can quickly and easily combine multiple modalities (i.e. on-screen visuals, auditory information, additional media elements such as text, "tips", etc.)

In particular, screencasts offer a quicker, easier and more detailed resource compared to a lecturer taking screenshots and writing accompanying text to outline to learners how to achieve a task (e.g. how to complete a specific task in a software environment), or giving learners feedback on their assessment submissions (particular for more visual or non-traditional assessments).

How does the Screen capture software solution support teaching and learning?

MTU's screen capture solution is primarily used by staff for the development of digital learning resources. The most prevalent usage of the software among staff is as a tool to develop video resources which can be used to demonstrate on-screen instructions to students.

This has primarily involved the development of tutorials around the use of software, whereby lecturers can demonstrate the use of specific software through demonstrating on-screen activity while also speaking aloud. The use of screen capture software to produce learning resources on the use of software ensures that an entire process is clearly visible to students, and that they need simply copy the steps involved to replicate the process in the software on their own machines. This process can also include accessing an online resource - such as using a website or online platform.

An additional popular usage of the software in the development of digital learning resources is as a means of producing narrated screen decks (or "slideshows"). This process involves lecturers recording the presentation of their Powerpoint slides while the lecturer also speaks aloud over the slides. This is a particularly useful means of developing a digital learning resource as it replicates the classroom experience of looking at a lecturer's slides while the lecturer speaks over them.

Additional means of using screen capture software to support teaching and learning relates to the provision of feedback. Rather than providing only written feedback on submitted assessments, lecturers can use the screen capture software to develop a screencast whereby the lecturer can go through the students' work on-screen while simultaneously speaking their feedback and recommendations aloud. From a student perspective, this process essentially replicates the lecturer and student sitting down and going through the work together in-person. Through the additional visual presentation, this process can also reduce any ambiguity, which may arise through solely written feedback.

When was the Screen capture software solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

The screenpal software was initially rolled out in MTU in 2017.

The desire or initial request for a screencasting solution was based on the lack of such a feature in the digital learning infrastructure at that time. It was highlighted in a number of spaces and departments that traditional supporting resources - for supporting learning, or for explaining MTU software and systems (in particular to new students and new staff) - were primarily developed using text and imagery. While this format of supporting resource was useful, it was also limited in that it was open to different interpretations from different users, that steps in the overall process could be missed if the text and imagery used for description was not granular enough and that the accessibility for these resources could be improved.

The screenpal software was subject to an initial small-scale rollout among a number of interested “early adopters” who signed up to a request to participate in an initial series of “think-aloud” training sessions and to share their thoughts on potential usage of the software in their own teaching and learning processes. Following the successful conclusion of this initial pilot, screenpal (then “screencast-o-matic”) was rolled out to all staff through a process of dissemination, promotion and intensive training (both in-person and online) as well as through the provision of a deep range of asynchronous supporting resources.

What training or supports are in place for the Screen capture software solution?

There are a wide range of supporting resources available for screenpal contained in the Dept of Technology Enhanced Learning’s help centre, where a section has been dedicated to “screencasting” - https://telhelp.eu.helpdocsite.com/Screencasting.

These resources cover not just the technical installation and use of the screenpal software, but also include guidelines on the screen casting process (e.g. "Guidelines for writing a Screencast Voice-Over Script", "Guidelines for preparing to record a screencast", etc), as well as articles on how to share developed screencasts and advice on troubleshooting.

In addition to digital online training resources, MTU has provided a wide range of live online training resources which demonstrate how to use the software (https://www.youtube.com/@TechnologyEnhancedLearningMTU) and regularly holds online and in-person training for staff on how to access and install the software (typically the focus of this training is new staff who are unfamiliar with MTU's digital learning systems) and also on how to apply the software to effectively support or enhance teaching and learning (typically the focus of this training is experienced staff who are familiar with the software and wish to use it in a pedagogically effective manner).

Does the Screen capture software solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

Screenpal integrates with MTU's video conferencing solution - Zoom - and MTU's Virtual Learning Environment (VLE) - Canvas - to support deeper integration and to offer additional services and processes to MTU Cork staff & students.

Screenpal can automatically connect to an MTU users' Zoom account and Zoom recordings on the basis of their @mtu.ie email. This then allows screenpal to download and allow for editing and publishing of zoom recordings from within the screenpal environment.

This process provides an easy way for MTU lecturers to take recordings they have done via zoom in order to remove sections of the recordings and/ or blur out specific on-screen information (e.g. sensitive information); add additional items and

information to the recordings, including highlights, additional text, text or image callouts, etc.; add additional video into the recordings from other sources, etc.

Screenpal also integrates with the Canvas VLE via an LTI-based approach. This means that screenpal can be launched from within Canvas to record directly into the Canvas system. Additionally videos developed using screenpal can be uploaded and hosted on screenpal.com, and these can be quickly and easily embedded into Canvas pages, etc using the Canvas/ Screenpal integration.

This process provides an easy way for lecturers to launch the screenpal tool form within Canvas, but also allows for any videos uploaded to screenpal.com hosting to be embedded into Canvas pages, assessments, discussions, etc.

Can you think of any innovative ways individuals or units in your HEI have used Screen capture software solution?

A particularly innovative usage of screen capture software within MTU (or an innovative approach to teaching which has been facilitated through the use of screen capture software) relates to the design and application of the flipped classroom methodology by a number of teaching staff.

The flipped classroom approach requires that lecturers develop digital learning resources which students can use by themselves for self-study outside of the classroom and/ or without the lecturers' presence. The use of screen capture software offers an effective, efficient and accessible way of quickly developing clear and useful digital learning resources.

A lecturer may, for instance, present the relevant slidedeck on their laptop (that is, the presentation slides they would traditionally use in-class), then record their screen as they progress through the slides using screen capture software while speaking over their slides. Alternatively, a lecturer teaching computer science or similar may record their screen as they perform a particular task using a specific piece of software.

The recorded digital resource can then be published and made available to learners. Additional accessibility features such as closed captioning can also be added to this video to better facilitate all learners. This video can be made available to learners as something to watch outside of the live, in-person classroom - at whatever time or location best suits them. A form of formative assessment could also be included as part of this process (i.e. in addition to reviewing the developed video, learners may be requested to write a reflection, or to replicate any tasks demonstrated in the video). In the flipped classroom approach, watching the developed resource and completion of any associated tasks is often requested of learners prior to the next live, in-person class as this class can now be used for more active learning tasks - such as discussion, presentation, one-to-one or peer feedback, etc. on the focus of the video.

Have you received any feedback on the Screen capture software solution in your HEI??

Feedback on the use of screenplay has been very positive among MTU. The tool has been established within the institution for a number of years now and has seen an uptake of usage among staff over that period.

Feedback in general on the tool has come through informal channels, but has been very positive.

Does the Screen capture software solution in your HEI address or enhance any accessibility issues?

Screencasts offer many benefits from an accessibility point of view.

What is important for creating accessible screencasts is ensuring that learners who are differently-abled (i.e. learners who have visual and/or auditory impairments) are catered for and included in all phases (design, development and publishing).

What can greatly serve to support accessibility for screencasts is the inclusion of additional resources to accompany same, in particular, captions, transcripts, and audio descriptions.
Closed captioning for video recordings can be generated through a variety of resources. Most often automatically-generated captions can be provided by the hosting platform (i.e. YouTube, Canvas Studio, Kaltura etc). It should be noted however that automatically-generated captions are typically low quality, and should be edited for accuracy.

Transcripts of screencasts are useful resources to provide alongside the recordings themselves - both from a pedagogical and an accessibility point of view. A clean and simple means of developing a transcript to accompany a recording is to simply create the script before providing recording the video. The script can then be provided alongside the developed video.

Audio descriptions are useful for any recordings which may have visual information on screen which is not included in the accompanying audio. A useful means of determining whether these are required is to simply review the developed recordings to see if at any stage information is provided or spoken about which is not represented on-screen. If there is, this additional information can be added alongside the recording (i.e as a link or additional resource or reading).

Are there any other elements of note relating to your Screen capture software solution which you have experienced or observed?

The uptake of screen capture software in MTU was particularly notable during the Covid-19 pandemic and associated lockdowns.

The requirement for higher education staff and students to move to online or distance delivery during the Covid-19 pandemic (as part of Emergency Remote Teaching - or “ERT”) required transformation on a hire-to unseen scale in terms of the delivery of teaching and learning. All MTU lecturers, during Covid, were required to develop the skills and knowledge needed to teach in a digital format. Whilst this was most notable with a view to delivering live online lecturers, additional resources to supplement online delivery (and, often, the online delivery modality) were required.

As MTU’s screen capture software had been established prior to 2020, and training and supporting resources available for same, this meant that the resource became a quickly accessible and effective resource for MTU staff. The use of the screen capture software was not only for lecturers, but was available also for staff who sought to inform students of new processes, procedures, software, etc. (e.g. health and safety teams in MTU, the IT services department, etc).

Since the end of the pandemic, a particularly useful usage of screen capture software in MTU has been the availability of the recordings of the live online classes delivered during ERT, which have been accessed, edited and “re-cut” by staff to form additional learning resources for students - to support the addition of in-person, in-class teaching.

What recommendations would you have to other HEIs looking to introduce or improve a Screen capture software solution in their institution?

Based on MTU’s experience, key recommendations in the introduction of screen capture software into a higher education institution would primarily relate to Ensuring that staff are familiar not just with the technical installation and usage of the software, but also that they have some understanding of what a screencast is and how an effective screencast is composed. To this end, MTU - as part of the rollout of this software and subsequent training for same - ensured that guidelines were provided on how to structure, script, prepare for and record an effective screencast.

Ensuring that the software selected is not complicated nor difficult to use. Screenplay has been found to be “light” in terms of the user interface and the demands it places on users’ CPU and memory. This has ensured that it is freely available to most staff regardless of the hardware which they have available.

Ensuring that the screen capture software - where possible - allows for a range of video editing functionality. This has been a requested feature among many MTU staff members - the ability to edit video recordings where required. While most screen capture software will lack the full editing range of e.g. Adobe Premiere Pro or similar professional editing software, they will often be more intuitive and user-friendly to people unfamiliar with such software and the functionality available will more often than not be more than what is required (e.g. basic editing features such as blurring certain on-screen elements, trimming down and removing clips, adding in additional text or “callout” elements, etc.).

Additional hardware for users which is worth investing in where possible is microphones. While the visual elements of screencasting software are typically without issue (as they are reliant on the users’ display), poor audio quality can often occur if a user is not using a quality microphone. If the audio on a screencast is poor, it can greatly limit the pedagogical effectiveness of same.

An additional step related to the publishing and sharing of screencasts which is worth educating staff on relates to accessibility. Providing training on how to add closed captioning to published videos, outlining processes for providing multiple means of representation, etc. can help the developed resources to be more available to a greater number of learners (in particular learners who may be differently abled).

Do you have any other comments or observations regarding Screen capture for higher education?

None

Video Management Software

What is Video Management Software?

Video management software refers to programs or applications designed to provide a centralised system or repository for recording, storing, editing, managing and distributing video content. Video management software can be used to manage all video resources within an institution, as well as the use of associated video hardware.

Video management software can include, but not necessarily nor is it limited to, classroom capture software, which is used to record, stream and/ or share video recordings of live in-person/ in-class lectures.

Use Case 1

This use case was compiled by Technological University of the Shannon

What software do you use for Video Management in your HEI?

ScreenPal

How do stakeholders access and/ or use your Video Management solution?

Staff: Staff access Screenpal through the University ‘My Apps’ page. From there they can place any media created on the Virtual learning environment for students to view via a URL. In addition to this, as Screenpal hosts the videos on its site/app- staff can send recordings to eachother via a URL which allows access to files to large to share via email or Sharepoint. Majority of staff use Screenpal to record lectures online, create key concept videos, podcasting and information videos on assessment and programme admin. The video editor on Screenpal also allows media recorded on a different platform to be uploaded and edited from there.

Students: Students engage with the platform by watching video creations on the Virtual Learning Environment. Licence doesn’t extend to student usage so viewing is their only capability on there.

What is the Video Management solution used for in your HEI?

Some of Screenpals functions include:

Lecture recording (online)
Key Concept Videos
Assessment Videos
Podcasts and Audio

Narrated Powerpoints
Module/Programme Introductions
Editing Videos
Adding Background effects/music

What needs in your HEI does the Video Management solution address?

As over 80% of Flexible Learning's Programmes are delivered online, Screenpal is vital in offering an outlet for academic staff to record their classes online. In addition, Screenpal also allows staff to make any necessary edits to videos to make them more compressed for those unable to attend or who wish to watch the videos back for revision purposes. From a departmental viewpoint, Screenpal helps us launch the 'Before, During and After' principle for online learning, which allows academics to create bite-size videos before the class and also once the class has concluded to compound the learning outcomes to the student. Furthermore, Screenpal facilitates the changing ways students wish to learn- in many cases 'on-the-go- and at a pace which suits their own needs.

How does the Video Management solution support teaching and learning?

Demonstration and Tutorials
Educators in technical fields often need to demonstrate how to use certain software. In this case, ScreenPal allows them to record detailed, step-by-step video tutorials that students can refer while learning at their own pace.

Lab Simulations
For practical subjects, it can simulate step-by-step lab work or project demonstrations. This proves invaluable for students who would otherwise need to commute long distances for practical work and thus, creates value for the courses we provide.

Feedback

Instructors have the ability to provide video feedback on assignments, making the feedback process more personal and detailed. Students can see exactly what areas of their work need improvement through recorded commentary.

Accessibility

ScreenPal allows videos to be captioned, making them more accessible to students with hearing impairments or those who benefit from reading along with the material. In addition, video transcripts can prove invaluable to students with cognitive function disabilities.

Flexible Learning:

Since students can access video content at their own pace, they can review challenging material as many times as they need, supporting different learning styles and schedules. This is vital in Flexible Learning as the majority of students are full-time employed and need flexibility in how, when and where they access content.

Blended and Remote Learning

In online and hybrid learning context, ScreenPal helps instructors create content that is easily shared through the university's VLE- Moodle. Staff can then build a repository of media and video content, which students can revisit any time throughout the course of their studies.

When was the Video Management solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

Jan 2023- Previously we used Panopto as our main video player/editor however due to licencing costs and feedback from users it was decided that we move to

Screenpal. Screenpal was used widely in the University as a free tool, and one of it's big benefits to staff was its simplicity and ease of use as opposed to Panopto. Demand mainly came from those already engaging with Screenpal on some level outside of the institution. Panopto also were increasing the price of our institutional licence something in which Screenpal provided far better value for TUS. The IT team looked carefully at use cases where staff were already utilising the free version of ScreenPal and found many successful use cases, across our campuses.

What training or supports are in place for the Video Management solution?

Flexible Learning has created multiple guides on Screenpal, both generic and tailored to our staff and student body. In addition, we have set up a number of workshops on using the software so the staff body can get used to it and also have any questions they may have answered right away. Furthermore, the Screenpal website gives a number of in depth guides, both paper and video, which give a detailed overview to our staff on how to use the platform to it's full capability. If any staff member also wishes to have a one-on-one tutorial or experiencing any tech difficulties with the platform they can book with the Learning Technologist at Flexible Learning or with the IT Service Helpdesk.

Does the Video Management solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

Screenpal has a plug in on our VLE Moodle which allows seamless integration of media created on students module and programme pages. This allows students to view media on the page in question rather than being rediverted to another website. It also allows staff to bank their videos on their Moodle pages which then can be carried over to future years/other modules if appropriate, providing a crucial repository for students who can access video content right away. It also allows staff

to see how many students actually engaged with the videos, giving them a good indicator of what works and what doesn't.

Can you think of any innovative ways individuals or units in your HEI have used Video Management solution?

One notable of way of using Screenpal was to use it for audio recording and editing. This allowed students who are on the go, perhaps commuting or driving to listen back to key learning points which again can compound their learning. Again, this feeds back to the changing nature of our student (Many employed full time) and the changing way students now wish to learn.

Embedding quizzes is another innovative way some academics are utilising screenpal. For example, previously we would have to skip between Moodle and the video should there be any quizzes or assessment mid way through- This can now be embedded as you watch the video live, this keeps student engagement high as they do not have to switch between tabs or browsers. Increasingly, as we see students engage with materials on mobile devices this becomes more and more important.

Have you received any feedback on the Video Management solution in your HEI??

Feedback is largely positive on Screenpal. One of the main challenges initially was transferring videos from Panopto to Screenpal once we purchased the licence. This had to be done manually so caused a few issues, but once that was overcome, we received feedback that Screenpal was easy to use, videos were easier to edit and quality of picture and audio were excellent with constant upgraded improving this all the time.

Does the Video Management solution in your HEI address or enhance any accessibility issues?

Yes in a number of ways- Firstly the captioning software on Screenpal is 95% accurate, as high as any other video software on the market, crucial for students who have hearing impairments. In addition, the transcription available from videos created also can be a crucial accessibility tool for students. Furthemore, Users can control the playback speed, which can be helpful for people with cognitive disabilities or those who prefer to digest content at their own pace.

Are there any other elements of note relating to your Video Management solution which you have experienced or observed?

Staff engagement with media creation has increased dramatically since we brought in the Screenpal licence as opposed to when we were using Panopto. As mentioned previously, this is down to a number of factors including ease of use, familiarity with the platform and more intensive staff training and support on this.

What recommendations would you have to other HEIs looking to introduce or improve a Video Management solution in their institution?

I would urge other HEI's to extend the licence to students, not just staff. This then opens doors for new types of learning and assessment for students. For example, instead of a staff member, assessing presentations live, the students could record their presentations and submit to an assessment dropbox. This allows students to work and present in their own time. In addition, this would enhance student engagement as it would be a departure from the traditional ways students are assessed/create content, which is crucial in the world of online learning.

Do you have any other comments or observations regarding Video Management for higher education?

Simplicity of use with Screenpal appears to be the biggest attraction for staff and student engagement. Although Panopto had much more functionality, many staff members, who may not have experience in online learning tools, appear to be gravitating towards the platform more for this very reason.

Video conferencing software

What is Video conferencing software?

Video conferencing software refers to programs or applications designed to facilitate users in planning, conducting, recording and sharing live video meetings, conferences, and webinars online.

Video conferencing software allows participants to communicate in real-time using video, audio, web chat, screen-sharing, file-sharing, etc. Video conferencing software is typically used for live online delivery of teaching in a fully online or blended context. Additional considerations for the effective use of video conferencing software for delivery of training - as opposed to simply “meetings” - typically requires additional features such as the ability to create private (“breakout”) rooms, on-screen annotation, shared whiteboards, etc.

Use Case 1

This use case was compiled by Munster Technological University

What software do you use for video conferencing in your HEI?

Zoom

How do stakeholders access and/ or use your video conferencing solution?

Zoom at MTU is available for all staff members, including academic and support staff, providing a convenient tool for virtual meetings and online classes. Staff have access to Zoom's full features.

Zoom, is a central component of the digital learning infrastructure, through it's integration with Canvas. Zoom is MTU's video-conferencing tool for live online learning and communication. Zoom is integrated with Canvas, so Zoom classes can be created and launched from inside Canvas.

What is the video conferencing solution used for in your HEI?

MTU uses Zoom for video conferencing (incl. meetings and online teaching and learning). (https://www.zoom.com/).

Zoom is a video conferencing platform that enables virtual meetings, webinars, and online collaboration. It allows users to connect via video, audio, and chat from anywhere, making it ideal for remote communication, teaching, and team collaboration. Zoom was founded in April 2011 by Eric Yuan, a former lead engineer at Cisco WebEx. The company officially launched its video conferencing platform in 2013.

The software integrates with MTU's Virtual Learning Environment (VLE) - Canvas.

What needs in your HEI does the video conferencing solution address?

Zoom addresses several key needs at MTU, particularly in supporting online teaching, distance learning, and virtual collaboration. For courses like the MA in eLearning, where students are geographically dispersed, Zoom provides virtual classrooms that facilitate real-time interaction between lecturers and students. This provides a reliable and robust learning experience by providing face-to-face engagement, even in a fully online setting. Features such as screen sharing, breakout rooms, and recording capabilities make it a versatile tool for delivering lectures, facilitating discussions, and supporting collaborative learning activities, and so on.

Additionally, Zoom plays a critical role in organising and hosting meetings and webinars. It provides a flexible and reliable platform for internal meetings, allowing staff to collaborate remotely and stay connected. For larger events, such as webinars (such as TEL's staff training sessions), and public talks, Zoom offers high-capacity features that support a wide audience, ensuring smooth communication with both students and external participants. The platform's ease of use and compatibility across devices ensures accessibility for all participants, and has been well received by MTU staff and students.

How does the video conferencing solution support teaching and learning?

Zoom supports teaching and learning at MTU by supporting live, interactive sessions for online and distance education programs like the MA in eLearning. It allows instructors to conduct real-time classes, engage students through features like screen sharing and breakout rooms, and facilitate group discussions that mimic in-person interaction.

A key benefit of Zoom is its ability to archive lectures, enabling students to access recorded sessions at their convenience, these lectures can be accessed via Canvas

(via the Zoom LTI/Canvas integration). This is especially helpful for students in different time zones or those who cannot attend live classes, ensuring they can revisit materials as needed.

When was the video conferencing solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

The software was rolled out in 2017.

What training or supports are in place for the video conferencing solution?

There are a wide range of supporting resources available for Zoom contained in the Dept of Technology Enhanced Learning's help centre, where a section has been dedicated to Zoom (see blue banner on TEL resources page https://tel.cit.ie/staff-resources).

The Zoom resources on the TEL website for MTU staff provide guidance and support for effectively using Zoom in teaching, meetings, and webinars. Our site offers step-by-step instructions for setting up and managing Zoom accounts, including how to request a licence, host meetings, use advanced features like breakout rooms, and record sessions. It also includes best practices for online teaching and troubleshooting advice to help staff maximise their use of Zoom for remote and blended learning environments.

In addition to digital online training resources, MTU provides a wide range of live online training resources which demonstrate how to use Zoom and other software supported by the Dept. of TEL (https://www.youtube.com/@TechnologyEnhancedLearningMTU) and regularly holds online and in-person training for staff on how to access the software (typically the focus of this training is new staff who are unfamiliar with MTU's digital learning systems) and also on how to apply the software to effectively support or enhance

teaching and learning (typically the focus of this training is experienced staff who are familiar with the software and wish to use it in a pedagogically effective manner).

Does the video conferencing solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

Zoom integrates with Canvas as an LTI, allowing MTU staff to schedule, manage, and join Zoom meetings directly within their Canvas course environment. This integration simplifies the process for both instructors and students by embedding Zoom links into the module navigation menu, enabling easy access to virtual classes, online labs, and recorded sessions. MTU staff can also use the Canvas-embedded Zoom tools to automatically share recordings, making it convenient to manage synchronous and asynchronous learning in one central location. This is beneficial in the sense that it makes it easier for students to find live and archived online sessions.

Can you think of any innovative ways individuals or units in your HEI have used video conferencing solution?

Zoom live and cloud recording and archiving features allows students in different time Zones participate in courses of learning, such as the MA in eLearning.

Furthermore, staff at MTU commonly use breakout rooms for small group discussions and collaborative projects, simulating in-person group work. Staff commonly use polling and live quizzes during Zoom sessions to increase student participation and provide instant feedback, making learning more dynamic.

Our Zoom instance allows for external visitors including virtual guest speakers and experts from across the globe, who are easily brought into classrooms, broadening students' learning experiences.

Zoom's recording feature supports flipped classroom models, where students review lectures at their own pace, allowing for more focused, interactive activities during live sessions. These innovative uses of Zoom help create a more flexible, interactive, and inclusive learning environment. This further supports students whose first language is not English, allowing them play back sessions at their own pace.

Have you received any feedback on the video conferencing solution in your HEI??

Zoom is viewed positively by staff at MTU. It is widely regarded as the best solution for online meetings and webinars and staff are happy with this tool.

Does the video conferencing solution in your HEI address or enhance any accessibility issues?

Zoom offers several accessibility features that support diverse learners at MTU, ensuring that all students, regardless of ability, can fully participate in online learning. Key features include live transcription, which provides real-time captions for students who are deaf or hard of hearing, and the ability to pin or spotlight video feeds, allowing visually impaired users to focus on key speakers or interpreters. Screen reader support helps students with vision impairments navigate the platform, while keyboard shortcuts enable easier control of Zoom's functions without relying on a mouse. Additionally, recorded sessions with transcriptions allow students to review content at their own pace, helping those with cognitive or learning disabilities.

Are there any other elements of note relating to your video conferencing solution which you have experienced or observed?

The uptake of, and need for Zoom in MTU was particularly notable during the Covid-19 pandemic and associated lockdowns.

The requirement for higher education staff and students to move to online or distance delivery during the Covid-19 pandemic (as part of Emergency Remote Teaching - or “ERT”) required transformation on a hire-to unseen scale in terms of the delivery of teaching and learning. All MTU lecturers, during Covid, were required to develop the skills and knowledge needed to teach in a digital format. Whilst this was most notable with a view to delivering live online lecturers, additional resources to supplement online delivery (and, often, the online delivery modality) were required.

What recommendations would you have to other HEIs looking to introduce or improve a video conferencing solution in their institution?

Based on MTU’s experience, key recommendations in the introduction of screen capture software into a higher education institution would primarily relate to Ensuring that staff are familiar not just with the technical installation and usage of the software and ensuring that the software selected is not complicated nor difficult to use.

Do you have any other comments or observations regarding Video conferencing for higher education?

None

Use Case 2

This use case was compiled by Dundalk Institute of Technology

What software do you use for Video Conferencing in your HEI?

Microsoft Teams (MS Teams) – primary platform
Zoom
BigBlueButton

How do stakeholders access and/or use your Video Conferencing solution?

Across the Institute, and particularly from a staff point of view, management teams, admin, finance, and other functional area groups traditionally engage with Microsoft (MS) teams via its 'app' or installed programme on their desktop computers and/or laptops. These staff primarily use MS Teams for external and internal communications, and online meetings to facilitate discussion, 'chat' and file sharing. It appears rare for the browser-based version of MS Teams to be engaged with. While there is also the option to install the MS Teams app on a mobile device, it is difficult to track usage and engagement via this mode. In comparison to other platforms, having the platform automatically integrated with the College's Microsoft Outlook calendar system and Office suite has been a significant support for staff, and a function that 'won over' many in terms of preferred platforms, enhancing access and uptake.

With Teaching and Learning primarily employing a virtual learning environment (VLE), Moodle in our instance, as the preferred platform to share course content, materials, assessment, grades etc., students would primarily access MS Teams for

communications or online meetings. With group work often a part of particular modules, MS Teams supports learners with flexible options to meet with fellow team members. MS Teams does have 'classroom' based supports too, such as 'assignments' and the facility of using electronic/digital class 'notebooks' that contain multiple modes to provide digital feedback on submissions. This is engaged with in pockets across campus, but not universally given the focus on the VLE and its associated benefits.

Academic Staff often engage with MS Teams via committees they are on, exam board meetings and document management, external examiner documentation, classroom files and activities. Particular meetings transitioned to online formats during the pandemic with some remaining this way, for example all Academic Council meetings – again supporting flexibility and online access. BigBlueButton is another option that is embedded within our VLE, which can support online teaching, delivery and engagement also – but not in a Microsoft ecosystem integrated way. We see MS Teams as a helpful mode for particular teaching settings, such as part-time delivery.

External stakeholders can also engage with College MS Teams meetings, where they are required to be 'admitted' to the meeting when joining. A label 'guest' or 'external' is noted after their names. Some external stakeholders comment they prefer other video conferencing platforms in their settings, such as Zoom, hence staff need to be up to speed with both platforms depending on if they are being invited, or leading, virtual online meetings.

What is the Video Conferencing solution used for in your HEI?

Across DkIT, the vast majority of people engage with 'Microsoft Teams' as their primary means to support video conferencing, communications and online meetings. Like many, this mode was an aspect that became firmly established during the pandemic, and is now a much more integrated platform with several advantages due to connectivity across other Microsoft tools (such as Office and calendar integration). In DkIT, 'Zoom' is also used locally to meet specific needs, however approval is

required for Zoom licence purchase and provision. Finally, as mentioned, 'BigBlueButton' functionality exists within our VLE, but is geared more towards particular online teaching more than video conferencing.

What needs in your HEI does the Video Conferencing solution address?

Considering how we now work as a campus community, video conferencing and MS Teams has become a cornerstone for enhancing communication, collaboration and efficiencies. In DkIT, we see this technology having the potential to support:

Remote Learning and Flexibility: this provides opportunities for students to attend online seminars, webinars, or in some cases access remotely, making education accessible to many (such as distance learners for example). Live, synchronous, delivery and learning is also an option with this technology, while guest speakers can also join learning environments from remote locations.

Staff collaboration and professional development: Supporting efficiency, departmental meetings, collaborations and communications across functional areas, and research can now be facilitated without the need for physical presence at meetings. In addition, numerous staff attend online webinars and virtual events as part of their professional development.
Enhancing student support: Via video conferencing tools, staff can schedule meetings to support their students if not on campus. In addition to supporting class teaching, this may support students on particular projects, field trips or placements for example. Peer support is also supported via video conferencing, in relation to group work meetings or online study sessions amongst classmates.

Improving administrative efficiency: From a whole of-Institute point of view, there are increased efficiencies across communications and meetings, as well as staff training via online workshops and webinars. Online job interviewing is also possible with this technology.

Supporting external partnerships: Collaboration is a critical success factor in HEIs, and video conferencing platforms significantly support this. We note this locally but with external partners on enhancement projects, research projects, or multi-institutional HEIs, online meetings can occur, reducing travel time and expenditure while facilitating communication and maintaining progress – supporting the college's sustainability efforts too.
Realising guest speaker, and online event hosting opportunities: Video conferencing technology has supported DkIT in hosting online webinars and events as well as remote audience participation in question and answer sessions. Guest speakers/discipline experts can also join teaching environments to provide input and insights from their company or working career to our students.

How does the Video Conferencing solution support teaching and learning?

From a teaching and learning point of view, video conferencing provides several solution-oriented opportunities:

Remote and Hybrid T&L
For example, from a remote and hybrid learning point of view, such as is the case in some part-time courses, students and staff can partake in classes from any location. This makes learning more inclusive for remote learners, offering a suite of options to engaging with directly the learning in a synchronous way. While from a hybrid point of view, and with the right infrastructure in place, delivery of teaching with a combination of in-class and remote attendees is also supported via the video conferencing platform. In each of these situations, live interaction, shared screen functionality, and discussions are possible (with any sessions being able to be recorded should an educator wish to do so). During online meetings, seeing lecturer's faces, expressions and via video conferencing platforms can support belonging and the social aspect on learning, while promoting interaction via polls, Q&A sessions, chat etc. can motivate and involve students in an online session/meeting.

We can also see the video conferencing platform used for postgraduate assessments too, such as PhD viva voce examination, while presentations for some undergraduate assessments are sometimes completed online. Via such an integrated system, students can be involved and engage with staff throughout.

Peer engagement and supports

Aside from students holding their own meetings to support group work, following Zoom's lead, MS Teams developed 'break out room' functionality, as well as interactive tools. When combined, these can support small group discussions, engagement, interaction – all promoting active learning. In order to further support learning, any supplementary documents/presentations/resources can also be shared – but the role of the VLE has to be considered in parallel (i.e. you don't want students confused as to where to locate supporting resources). Video conferencing can also be used to support particular learners with specific needs or questions – i.e. provide a more personalised learning option for engagement.

Digital Feedback

In terms of provision of digital feedback for learning, MS Teams outside of its 'meeting' functionality, offers digital class notebooks (linking in with it's integrated OneNote platform) where students can submit assignments or notes, with the option for educators to provide feedback via multiple modes (audio, text, etc.).

Universal Design for Learning (UDL)

In terms of UDL, having video conferencing platforms in play can bring with them accessibility features such as closed captions and transcription, making sessions or meetings more inclusive.

When was the Video Conferencing solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

While a small number of staff were engaging with video conferencing systems – such as MS Teams - prior to the pandemic (but more for the functionality around class

notebooks, digital feedback, shared work sheets amongst collaborating staff and project collaborations), like many HEIs, it was not until the pandemic where demand soared. Initial efforts with MS Teams and Zoom needed 'trial and error', conversations with colleagues, and support from students. It is sometimes forgotten how comfortable we have become with the transition to using these tools across HEIs from a work point of view. In relation to teaching, while there are still particular situations where video conferencing is required, the return to in-class teaching has most likely reduced the frequency of its use as a class delivery resource in recent years.

What training or supports are in place for the Video Conferencing solution?

With the immediate need for training at the onset of the pandemic, MS Teams as a software system was not as developed, intuitive or established as it is now. Staff used social media, video guides and online tutorials to support delivery. Our CELT department arranged sessions with Microsoft's education lead to support uptake and showcase opportunities at the time also. Many would feel now that MS Teams is as integrated a programme as Word, PowerPoint and Excel. DkIT also provides access for staff to Linkedin Learning (via the N-TUTORR project), and within this platform there are numerous courses to support people engage with MS Teams and Zoom capabilities.

Does the Video Conferencing solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

The true benefit of the MS Teams platform is in its integration with platforms across the Microsoft ecosystem. Teams enables seamless work with Word, Powerpoint, Excel, OneNote, Outlook, Forms, etc, while it also is supported locally via single sign on (SSO) for users to all Microsoft services. As noted elsewhere, the synchronisation

feature with the calendar in Outlook supports its uptake. In recent months, there has been the development of more and more ‘Apps’ that can be used within MS Teams.

Teams is built on sharepoint, so accessing files in teams/projects/committees/classes and dedicated user group channels assists communications and efficiencies. Microsoft Stream supports the recordings of meetings and classes, akin to a YouTube channel.

Like many video conferencing platforms, integration is possible with various VLEs which again can support access to extended functionality, while maintaining familiarity to students with the platform of preference.

Can you think of any innovative ways individuals or units in your HEI have used Video Conferencing solution?

MS Teams has several elements that can support video conferencing that are not often engaged with. For example, CELT and also the N-TUTORR project team have hosted online MS Teams webinars (vs. MS Teams meetings), and used this function in the ‘new’ teams. It allowed registration, meeting management all to be streamlined.

The breakout room functionality has supported replicating workshop-like conditions, whereby a group can meet and discuss points before being asked to report back to all attendees in the primary meeting room.

Supporting further collaboration has been the use of the digital whiteboard tool, whereby participants can synchronously work on the same ‘blank page’. The supports communication, collaboration and also sharing learning.

Have you received any feedback on the Video Conferencing solution in your HEI??

In general, Teams has been well received. Its update showcases the established need for effective, efficient and flexible modes of communication amongst teams. It has become a centre point for Institute teams, staff professional development, engagement with external stakeholders as well as the academic community. However, some general feedback around Microsoft systems is that we are not fully harnessing all of their capabilities, and with MS Teams, it's clear there is more room for expansion of functionality use and integration.

Does the Video Conferencing solution in your HEI address or enhance any accessibility issues?

Yes, Microsoft Teams as well as Zoom support automatic live captioning and meeting transcriptions. Also, being able to extract audio files can be a support for many. Generating real-time captions is particularly beneficial for students and staff who may be deaf or hard of hearing as they can follow along with the spoken content in real time. Text transcriptions can support those who prefer to read what was said, or those who wish to translate it to a different language. MS Teams also has an immersive reader, helping by changing text formatting, or reading it aloud – while it is also compatible with various screenreaders.

While in video conferencing or online meeting mode, attendees can pin or spotlight specific speakers ensuring that attendees or students who rely on lip reading can see the person speaking clearly.

Inclusive engagement is also supported via the 'chat' messaging feature, whereby attendees preferring written communication can initiate or engage with discussions.

The 'raise hand' feature provides non-verbal ways to engage in online meetings too.

Are there any other elements of note relating to your Video Conferencing solution which you have experienced or observed?

Across HEIs, it's been very impressive to note people's comfort level in adapting to new technologies in this space. The pandemic enforced many changes, but using MS Teams as a communication tool has become more universal now.

An important aspect to reflect on as a HEI, is that if these platforms are going to become more central to working and/or teaching, that in the latter instance, an awareness of the digital divide needs to be in place. Students and staff in areas with poor internet connectivity or limited access to devices may struggle to participate fully in online classes, and this needs to be considered. Accompanying this, HEIs must invest in robust IT infrastructure on campus to support widespread use of video conferencing, including bandwidth upgrades, server capacity, and cybersecurity measures. Technical issues such as lag, audio glitches, or connectivity problems can hinder the learning experience.

What recommendations would you have to other HEIs looking to introduce or improve a Video Conferencing solution in their institution?

The more embedded and integrated a solution is, the more the seamless the uptake can be. While you sometimes hear of others' preference for a different video conferencing platform, the way MS Teams is fully integrated ensures it becomes 'business as usual' across a HEI. In saying that, stakeholders in all areas need to ensure they are aware of certain groups who are joining the Institute, such as new staff or Y1 students who may require empathy, guidance and positive support in the technology/functionality and use of video conferencing platforms as modes of teaching, learning and conducting meetings. Developing new user guidelines may also be beneficial, to ensure that digital communication spaces remain respectful, positive and proactive across the community.

Do you have any other comments or observations regarding Video Conferencing for higher education?

From an aspect that became essential during the pandemic, many HEIs continue to embrace video conferencing platforms for long-term use. It allows for a more accessible and resilient education system, where teaching can continue despite disruptions like pandemics, natural disasters, or other emergencies.

This technology has introduced and enabled new functionality and opportunities, as outlined in this document. In saying that, on a broader aspect, global collaboration opportunities, as well as hybrid/hyflex engagement and delivery now becomes an option. This can support diverse student needs, such as balancing work, family responsibilities, etc. For working professionals, and lifelong learners, this opens further engagement in education opportunities.

Expediting communication opportunities via video conferencing does support being a business need also, and from a functional area and committee point of view, many will testify to the benefits and efficiencies accompanying this technology in terms of internal and external communication.

Use Case 3

This use case was compiled by Dún Laoghaire Institute of Art, Design + Technology

What software do you use for Video conferencing in your HEI?

Class (formerly Blackboard Collaborate)

How do stakeholders access and/ or use your Video conferencing solution?

Class is integrated into every Blackboard Course on the Institution's VLE. Staff can schedule live sessions for their class group using the tool and link attendance to the course gradebook. Every module of every course has a Blackboard course created for it automatically. Students are enrolled via an automatic connection to the Institute's Student Information System Banner. Lecturers are enrolled by the Institute Educational Technologist at the request of Heads of Department and Faculty Administrators.

The Institute has scheduled the upgrade of this service to Class for Teams, which utilises the Institute's Microsoft Teams tool while retaining the seamless integration with the VLE. This upgrade is set for january 2025 and has been funded by the N-TUTORR project.

What is the Video conferencing solution used for in your HEI?

This is used for live sessions with students for remote teaching. It is also used for tutorials between individual students and their lecturers.

What needs in your HEI does the Video conferencing solution address?

It addresses the need for formal remote engagement between staff and students.

How does the Video conferencing solution support teaching and learning?

Class allows the video conferencing space to be arranged to the preferences of the educator. Lecturers and teaching assistants can be pinned and students can be arranged in a seating profile. It also allows for the seamless connection to the respective VLE space which helps students to understand their learning environment better.

When was the Video conferencing solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

Class has evolved under our current contract from Blackboard Collaborate. The product was sold by Blackboard/Anthology and developed by another company without disruption of service. Our contract with Blackboard for Collaborate started in November 2019. Prior to this the only synchronous teaching space available to IADT staff and students was Adobe Connect, for which we did not have sufficient licenses to offer the tool to all staff simultaneously. Licenses were swapped between users on demand.

The Collaborate tool was piloted and launched between November 2019 and February 2020. Subsequent events transpired that led to a surge in uptake at that point. The N-TUTORR team have been paying for the tool since November 2023 and have chosen to upgrade it to Class for Microsoft Teams to encourage synergy between tools at IADT, as Teams is used widely for other and similar purposes.

What training or supports are in place for the Video conferencing solution?

There are video tutorials for Collaborate/ Class that are shared with staff to orientate them around using the software. The Institute is currently in the process of upgrading to Class for Teams and new materials are being developed to support this change. The Institute is taking part in a scheduled cohort upgrade process that will involve a structured pilot process during which advice and support materials will be created.

Does the Video conferencing solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

It connects to the Institute VLE including to the Attendance feature that can be linked to the Gradebook by the lecturer. It is established via a data connection linked to the Institute's SIS ensuring the groupings are correct.

Can you think of any innovative ways individuals or units in your HEI have used Video conferencing solution?

It has been used to host open webinars for students before they have registered, as it allows for access from non authenticated users. Unlike Teams which can be difficult to join for certain users unfamiliar with the product and without an existing Microsoft account, Class/Collaborate allows for instant access in certain circumstances. This is ideal for demonstrating to unregistered students the process of signing in to other systems.

Have you received any feedback on the Video conferencing solution in your HEI??

Some lecturers have expressed a preference for using Microsoft Teams instead of Class/Collaborate. This criticism is based on the familiarity of the Teams interface and the reliability of the video quality. Both of these criticisms are addressed by our decision to move to Class for Teams whil retaining the advantage of the seamless integration with Blackboard which remains a priority.

Does the Video conferencing solution in your HEI address or enhance any accessibility issues?

Class/ Collaborate allowed for closed captioning but did not provide it automatically itself. The move to Class for Teams will allow for automatic transcription.

Are there any other elements of note relating to your Video conferencing solution which you have experienced or observed?

What recommendations would you have to other HEIs looking to introduce or improve a Video conferencing solution in their institution?

Focus on your Institute's priorities. Class Collaborate/ Class for Teams is an adequate tool but there are others that can do a similar job. It's unique selling point to us is its integration into our VLE in which we are already quite invested. This will not be the same for other Institutes that are invested in different platforms.

Do you have any other comments or observations regarding Video conferencing for higher education?

None

Classroom or lecture capture software

What is Classroom or lecture capture software?

Classroom capture software refers to programs or applications designed to record, stream and/ or share video recordings of live in-person/ in-class lectures. Classroom capture software is typically required to capture video and audio feeds of the lecturer and students in the physical location, a video feed of any material being presented on-screen by the lecturer, etc.

As well as recording, classroom capture software is also used to store, manage, edit and distribute classroom recordings. Classroom capture software is typically associated with the recording of classroom or in-person activity for review, revision and reference purposes. In particular for students who cannot, for whatever reason, attend the in-person class. It is possible to distinguish between classroom capture software and video conferencing software (for online delivery purposes), as the latter is designed to allow live engagement and interaction from online participants, whereas the former typically does not facilitate live engagement as it is typically more focused on “static” recording. It should be noted however that this distinction is not always clear.

Use Case 1

This use case was compiled by South Atlantic Technological University

What software do you use for Classroom or lecture capture software in your HEI?

Panopto

How do stakeholders access and/ or use your Classroom or lecture capture software solution?

Staff and students mostly use Panopto through the Learning Management System. Staff use it for content creation (recording or uploading of lecturers, presentations and instructional videos. They can organise and reuse the video content across a module or multiple modules and track engagement through analytics

Students can view embedded videos in the correct context (topic/week/module) within the LMS. They can interact with the content by viewing transcripts, make notes, comments or bookmarks which is useful for studying and revising for exams. Students may submit assignments through Panopto.
Other users such as administrators and technical support staff may use Panopto's web or desktop applications to manage or archive content. They may also use this for generating usage reports or troubleshoot issues

What is the Classroom or lecture capture software solution used for in your HEI?

Panopto is used to host and stream video content for teaching and learning. Currently, it is used by lecturing staff to host supplementary learning materials for presentation, instructional videos and screen recording. The Technology Enhanced Learning team also use it for hosting and distribution of training videos. We plan to

utilise it further for lecture capture, and to enhance distance learning, student engagement, accessibility, professional development and internal communication.

What needs in your HEI does the Classroom or lecture capture software solution address?

Storage Burden: Our Learning Management System (LMS) previously hosted almost 5TB of video content, which was burdensome to manage. Panopto provides a scalable and reliable solution, significantly reducing the storage burden on our LMS.

Efficient Content Management: Managing and organising a vast library of video content was a complex and time-consuming task. Panopto offers robust content management features, allowing for easy categorisation, tagging, and retrieval of videos.

Metadata and Search: Enhanced metadata capabilities and advanced search functions enable quick and easy access to specific videos, improving user experience and content discoverability.

Optimised Streaming: Streaming large volumes of video content was challenging with our LMS. Panopto provides optimised streaming capabilities, ensuring smooth and reliable playback for all users, regardless of their location or device.

Adaptive Bitrate Streaming: This feature adjusts the video quality based on the viewer's bandwidth, ensuring the best possible viewing experience even with varying internet speeds.

Seamless Integration: Panopto integrates seamlessly with our existing LMS, allowing for a unified and streamlined user experience. This integration facilitates easy access to video content directly from the LMS interface.

Closed Captioning and Transcripts: Panopto supports closed captioning and automatic transcription, making video content accessible to all students, including those with hearing impairments. This also helps in meeting accessibility compliance requirements.

How does the Classroom or lecture capture software solution support teaching and learning?

Panopto provides comprehensive platform for creating, curating, managing, and utilising video-based learning materials. It allows lecturers to easily record lectures, presentations and demonstrations using their own computers and mobile devices. It can be used for screen recordings and to schedule the capture of lectures too.

It allows lecturers to organise their content into modules in the learning management system, reuse and copy content between academic years. It has some easy to use editing tools to trim, cut and splice videos, add captions and make other enhancements without needing to use or learn dedicated video editing platforms.

Panopto provides a video submission activity in the Learning Management System for video-based assessment as well as feedback and grading facilities.

When was the Classroom or lecture capture software solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

We began piloting Panopto in January 2022 with a full rollout to all staff on the Waterford campus in September 2022. It was the result of over 5TB of video being uploaded to the LMS during COVID campus closures. Each video was being stored and downloaded as a file on high availability storage on our LMS's cloud hosting. This was uneconomical and inefficient. Faced with higher bills for storage and bandwidth usage we sought out Classroom or lecture capture software that would

save money and provide more features and functionality than what was available in the LMS.

What training or supports are in place for the Classroom or lecture capture software solution?

Yes, we developed a suite of resources and co-delivered training workshops with support from Panopto.

Does the Classroom or lecture capture software solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

It is well integrated into the LMS using LTIs and SSO is utilised through Active Directory

Can you think of any innovative ways individuals or units in your HEI have used Classroom or lecture capture software solution?

Not particularly

Have you received any feedback on the Classroom or lecture capture software solution in your HEI??

no

Does the Classroom or lecture capture software solution in your HEI address or enhance any accessibility issues?

Panopto, significantly addresses and enhances accessibility issues through various features and capabilities:

Automatic Closed Captioning:
Panopto automatically generates closed captions for video content, making it accessible to students with hearing impairments. This ensures that all students can follow along with the audio content of lectures and presentations.

Editable Captions:
Lecturers can review and edit the automatically generated captions to improve accuracy, ensuring that the content is precisely conveyed.

Transcripts:
Panopto provides full video transcripts that can be accessed alongside the video or downloaded. This helps students who prefer reading or need to reference the material in text form.

Searchable Video Content:
In-Video Search: Panopto's searchable video content feature allows students to search for specific keywords or phrases within the video's audio, captions, and notes. This helps students quickly find and jump to the exact part of the video that covers the topic they are looking for.

Adjustable Playback Speed: Students can adjust the playback speed of videos to suit their individual learning pace. Slowing down the video can be helpful for students who need more time to process information, while speeding it up can benefit those who are reviewing content.

Mobile and Multi-Device Access: Panopto is accessible on various devices, including smartphones, tablets, and computers, allowing students to access learning materials in the format that is most convenient and accessible for them.

Are there any other elements of note relating to your Classroom or lecture capture software solution which you have experienced or observed?

Uptake of the platform has been relatively low and slowed further by external factors such as the TU merger process and the selection of a unified virtual learning environment. These external factors have led to uncertainty around the long-term commitment to Panopto which, understandably, decreased upskilling and content development and overall uptake of the platform.

What recommendations would you have to other HEIs looking to introduce or improve a Classroom or lecture capture software solution in their institution?

Providing certainty and long term commitment would be important for us. We have found lecturers are motivated by how useful the platform is to them by highlighting how it will save them time, simplify their workflows, provide better insights, analytics and functionality and provide a better experience for students. Lecturers liked the idea of having an “internal Youtube” where they maintained ownership of their content too.

Do you have any other comments or observations regarding Classroom or lecture capture for higher education?

None

Use Case 2

This use case was compiled by Dundalk Institute of Technology

What software do you use for Classroom or lecture capture software in your HEI?

Panopto.

How do stakeholders access and/ or use your Classroom or lecture capture software solution?

Panopto will be used, not setup yet.

What is the Classroom or lecture capture software solution used for in your HEI?

Panopto

What needs in your HEI does the Classroom or lecture capture software solution address?

The need to record, store and present video content to support staff and students

How does the Classroom or lecture capture software solution support teaching and learning?

The Video Software supports teaching and learning by enabling the creation of quality content that can be stored and distributed to students and staff, this content should be of high quality with an onus on providing teaching and learning material that will be of benefit to both staff and students.

When was the Classroom or lecture capture software solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

Software is in the process of been rolled out, queries came from staff and students.

What training or supports are in place for the Classroom or lecture capture software solution?

We are in the process of setting up the software and will schedule training once this is complete, Panopto support are working with us at the moment to help with configuration for testing.

Does the Classroom or lecture capture software solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

The Video Management Software will integrate with our LMS Moodle, the benefit is that you don't have to use the software as two separate pieces of software, you can access video, record and store within Moodle if configuration all goes to plan.

Can you think of any innovative ways individuals or units in your HEI have used Classroom or lecture capture software solution?

Some units are using the Video Software to provide quality content that can be distributed to students who can't perhaps make class for a number of reasons thus helping the students gain access to their material and complete their courses.

Have you received any feedback on the Classroom or lecture capture software solution in your HEI??

Not installed yet.

Does the Classroom or lecture capture software solution in your HEI address or enhance any accessibility issues?

Once installed we can test to see if it addresses or enhances any accessibility issues.

Are there any other elements of note relating to your Classroom or lecture capture software solution which you have experienced or observed?

From what we observed and looking at other software, Panopto met all the needs, from all the testing so far it meets all the requirements that have been identified.

What recommendations would you have to other HEIs looking to introduce or improve a Classroom or lecture capture software solution in their institution?

Should have some recommendations once installed and used for a period of time, setup and training needs to be completed.

Do you have any other comments or observations regarding Classroom or lecture capture software for higher education?

I would just say in my opinion in the modern day of Education it's an essential tool to help Staff create quality content and for student to access this, also student may have the need to create content also and this software provide the means to do so, in my opinion it's important to have this software available to support teaching and learning.

Video editing software

What is Video editing software?

Video editing software refers to programs or applications designed to allow for the highly granular and varied editing of video footage for a range of purposes, including for professional content creation. Video editing software typically offers specific resources for editing and publishing video, allowing for the combination and editing of multiple video, sound and image sources - as well as offering a wide range of editing tools for same, including effects, transitions, colour grading, audio editing, etc.

Video editing software is typically distinguished from other video solutions on the basis of a specific focus on detailed editing and publishing - rather than capture, storage, management, etc. - of video footage. Video editing software is commonly used for filmmaking, marketing, and entertainment purposes.

Use Case

This use case was compiled by Dundalk Institute of Technology.

What software do you use for Video Editing in your HEI?

- ScreenPal (formerly Screencast-o-matic)
- FinalCut Pro (mac)
- Camtasia
- Panopto
- Screenflow (mac)
- Adobe Premiere Pro

How do stakeholders access and/or use your Video Editing solution?

Generally, academic staff members access video editing solutions through various platforms depending on their specific needs, with some using available Apps on their mobile devices or computers. They do this when creating bespoke teaching video resources for their students. For general content creation, thanks to N-TUTORR, DkIT staff will shortly have access to Panopto, which offers simple editing tools and integrates with our Moodle Virtual Learning Environment (VLE). Creative media departments, however, rely on more advanced tools such as Adobe Premiere Pro and FinalCut Pro for high-quality video production.

Students sometimes engage with video editing when completing multimedia assignments. Generally, they tend to use available Apps on mobile devices for video editing. Going forward, Panopto will be available to create/edit video. Some programmes, particularly those in creative fields, provide access to high-end software like Adobe Creative Cloud or FinalCut Pro in specialised labs – but licences and access are limited to particular cohorts.

Other stakeholders, such as administration staff or those in various functional areas,

may use video editing tools in some instances – but only in a very focused need. However, they will soon have the Panopto offering to create video/edit content.

What is the Video Editing solution used for in your HEI?

In DkIT, staff are engaging with a suite of platforms to support video editing:

- ScreenPal (formerly Screencast-o-matic)
- FinalCut Pro (mac)
- Camtasia
- Panopto
- Screenflow (mac)
- Adobe Premiere Pro

DkIT does not have an Institute-wide platform (however the Panopto video management system will be soon launched). Ultimately, video editing can support the Institution's transition toward digital learning, promoting innovation in teaching, while offering students and staff diverse ways to engage with content.

What needs in your HEI does the Video editing solution address?

In general, those engaging with video editing solutions can address several key needs related to modern teaching, learning, training, and communication.

With the rise of blended and online education, particularly since the pandemic, there has been a growing demand for high-quality, engaging content and resources. Video editing allows lecturers to create dynamic video resources and/or lectures, demonstrations, and tutorials. Tools such as Panopto and those used across our campus community, provide a simple yet effective solution for staff to edit and enhance educational videos, ensuring that content is visually engaging, and pedagogically supportive.

Students can benefit from video editing solutions via accessing asynchronous learning resources, which accommodate flexible learning. The ability to revisit video content can supports deeper learning, and better retention.

In the creative fields such as Media, Film, and Communications, video editing solutions such as FinalCut Pro and Adobe Premiere Pro are essential for students to develop industry-relevant skills. These tools are used to complete projects, portfolios, and multimedia assessments.

Video editing can support institutional communication needs too, from marketing to public engagement. Professional-grade tools enable the production of polished content for outreach, promotional videos, and virtual events, enhancing the institution's public image and engagement.

How does the Video editing solution support teaching and learning?

The systems used for video editing across DkIT play a significant role in supporting and enhancing teaching and learning with some lecturers recording/editing customised content for their students. Accessibility supports which accompany video generation are most welcome across our sector, while there are also supports for a blended, hybrid or online learning environment. Below is a further outline of some of these:

- One of the primary ways video editing supports teaching is by facilitating the creation of accessible, asynchronous learning resources. Lecturers can create, record and edit videos using platforms such as Panopto, integrating visuals, slides, and even quizzes to make content more interactive for students. This allows students to engage with the material at their own pace, review key concepts, and revisit difficult topics as needed, promoting a personalised learning experience. This can be beneficial for students with various learning requirements, needs, or those needing flexibility due to work or personal commitments.

- From an online lecturing point of view, and building on the points made above, video editing tools can help support student engagement - which has been reported to be challenging in online settings - via creating engaging and dynamic content that goes beyond traditional lecture formats. Enhancement to videos with annotations, captions, and embedded questions makes the learning experience even more interactive and supportive.

- Across the STEM field, video editing can be used to create detailed demonstrations and simulations that would otherwise be difficult to deliver in-person. By editing content to highlight key steps or procedures, lecturers can provide clear, bespoke explanations - offering students more comprehensive learning resources.

- Video editing can play a role in student assessments, where students can submit video-based projects or presentations. Instructors can provide video/screencast feedback, offering more personal explanations than written comments. This enhances the learning experience by allowing students to better understand areas for improvement.

- For students in creative disciplines, video editing is essential for developing practical skills that are directly relevant to their field. Access to professional-grade tools like FinalCut Pro and Adobe Premiere Pro equips students with industry-standard skills needed for future careers.

In summary, video editing solutions across DkIT can contribute to a more flexible, engaging, and practical learning experience, tailored to the needs of both students and staff.

When was the Video Editing solution initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

The imminent rollout of our video management system Panopto, which contains an embedded video editor, will support our staff and students. In recent weeks, it has

been integrated into our VLE. While this will be of huge benefit to DkIT in the coming years to meet an important need it was actually in response to the shift toward online and blended learning during the pandemic where the need for video editing really came to the fore. During this time, certain staff were asked to prepare tutorials for others in terms of how to edit videos with various platforms (for the School of Health and Science, Dr. Ronan Bree created a YouTube playlist on modes to record video and audio, as well as edit video etc. (accessible via this link: https://www.youtube.com/playlist?list=PLfZf_L5h-IUmMSC0LYcXwUw6G72UE6WqT).

The demand for a centralised video editing and management platform originated initially from people seeing these highlighted at conferences, and locally to streamline, and have a 'one-stop shop' to support the Institution/modules/functional areas etc.. The Centre for Excellence in Learning and Teaching (CELT) has consistently played a key role in identifying the need for an accessible, user-friendly solution to support the growing demand for video-based teaching materials – as well as provide training supports and guidance.

Re. Panopto, provided via N-TUTORR support, a core team was involved in its piloting to ensure the platform met the needs of staff. This involved training, self-learning and sharing resources – which combined will support its imminent roll-out across the college. This trial phase confirmed that Panopto's user friendliness, simplicity and integration with our VLE made it the ideal solution for broad adoption.

What training or supports are in place for the Video editing solution?

Training and support for the video editing solution, primarily Panopto, will be provided through a combination of workshops, online resources, and staff consultations coordinated by N-TUTORR and colleagues in the Centre for Excellence in Learning and Teaching (CELT). Supporting this further is an online module on the VLE – provided by Panopto – with a series of resources which have assisted other

institutions in getting started. DkIT's Educational Technologist will also support staff with this initiative.

In terms of workshops, CELT regularly organises workshops to introduce staff to core features of new systems (for example, with our 'Vevox' platform adoption), and other VLE options. These workshops cater to users with varying levels of experience, ensuring that all staff members, from beginners to more advanced users, can engage effectively with the platform.

In terms of creating a library of video tutorials, guides, etc. will be available via the Institution's Panopto module on our staff VLE, allowing staff to access step-by-step instructions on using Panopto at their own pace.

For those needing more personalised assistance, DkIT will look to create the option for one-on-one consultations where required, where staff can receive targeted help with specific issues or advanced editing techniques. Additionally, an IT support desk is available for troubleshooting technical issues, installation of the Panopto software etc. (with support from the N-TUTORR team also).

This comprehensive support structure ensures that staff will have the resources and guidance needed to build confidence in using Panopto effectively for teaching and learning.

Does the Video editing solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

The Panopto video editing solution being provided via N-TUTORR funding, integrates with several key components of our Institution's digital learning and IT infrastructure, providing significant benefits for both staff and students.

For example,

- Panopto, being fully integrated with our VLE (Moodle), will allow lecturers to easily embed video content directly into course pages. This simplifies the process of sharing recorded content, tutorials, and other video-based materials. Students can access video content without leaving the VLE, creating a more streamlined and cohesive learning experience.

- Panopto supports Single Sign-On (SSO), enabling users to log in with their institutional credentials. This simplifies access for both staff and students, improving ease of use and minimising login-related issues.

- Panopto also integrates with collaboration tools like Microsoft Teams and Zoom, allowing recorded meetings, webinars, and resources to be easily transferred and edited within Panopto. This has the potential to enhance the Institution's capacity to offer flexible learning and communication options.

Overall, these integrations reduce administrative burdens, streamline the sharing and management of video content, and foster better collaboration across departments. The ease-of-use encourages wider adoption, will enhance engagement, and ensure that video becomes a more integral part of the learning experience in DkIT.

Can you think of any innovative ways individuals or units in your HEI have used Video Editing solution?

Several innovative uses of the video editing platform will be possible, which builds on local experience and platform offerings also. DkIT has already seen how different units and individuals have creatively leveraged the platform to enhance teaching, learning, and engagement.

Some lecturers have gone beyond traditional lecture recordings by incorporating interactive elements into their videos. Via various platforms' built-in quiz features, lecturers have added quizzes directly into the timeline of recorded lectures. This allows students to test their understanding of the material as they watch, ensuring

more active engagement with the content, and a check on their grasp of complex concepts.

In certain departments, lecturers have encouraged student-generated video content as part of peer-to-peer learning. Students have used various video editing tools to create presentations, tutorials, and role-playing videos, which are then shared with classmates. This approach not only fosters collaboration but also allows students to develop digital literacy and presentation skills, while at the same time reinforcing the course material through teaching others.

In some cases, lecturers have embraced the flipped classroom model, where video resources are pre-recorded and made available for students to watch before classes/labs etc.. During live sessions, time is spent on deeper discussions, problem-solving, and group work. The use of video editing to streamline and enhance lecture content has allowed more meaningful in-class interactions and engagement.

In other cases, by recording on-site visits or experiments and editing them to highlight key learning points, lecturers can offer students an experience that would otherwise be difficult to achieve in-person. These edited videos have been particularly valuable for remote learners and those unable to attend physically, and act as helpful revision resources for others.

From a Universal Design for Learning (UDL) approach, these video recording and editing platforms can offer captioning, text transcripts etc., which can all support viewers and learners. Captions can be edited where required.

Through these creative applications, video editing solutions have significantly expanded the possibilities for innovative teaching and learning strategies.

Have you received any feedback on the Video Editing solution in your HEI??

Across the college, the main feedback received on any video editing platform is that it has to be user-friendly, and simple in its adoption. Video editing solutions engaged with thus far have generally been received positively across our Institution. Staff members who decided to engaged with 'ScreenPal' have appreciated its user-friendly interface and functionality. We regularly receive comments around how easy it is to create a screencast, to create, edit, and share video content. During the piloting of Panopto, many have highlighted how the platform's interactive features, such as quizzes, transcripts and captions, have the potential to improve student engagement and understanding.

However, some feedback has pointed to limitations in advanced editing capabilities across these platforms. For example, colleagues from departments that require more complex video production, such as Creative Media require sustained access to professional-grade tools like Adobe Premiere Pro or FinalCut Pro for specialised tasks.

Overall, the upcoming integration and ease of use of Panopto will become a valuable tool for most users, while more advanced needs continue to be met through more specialised tools.

Does the Video editing solution in your HEI address or enhance any accessibility issues?

We see several accessibility enhancing features in our latest platform, Panopto. These features can play a significant role in addressing and enhancing accessibility issues in teaching and learning.

One of the key accessibility features is automatic captioning, which is embedded directly into Panopto. This feature generates captions for all recorded videos, ensuring that students with hearing impairments or those who prefer to learn through reading can access the content effectively. While the automated captions are generally accurate, staff also have the ability to manually edit them for precision,

further enhancing accessibility. Text transcripts of videos is also possible, while in other instances, there is also the option to translate content to other languages.

Video management systems also have adjustable playback speed is another valuable feature, allowing students to speed up or slow down video content. This flexibility supports a range of learning preferences, making the material more accessible to students with cognitive disabilities or those who benefit from customised learning paces.

Additionally, Panopto's integration with our VLE will ensure that all videos are easily accessible from a single platform, reducing the complexity for students with disabilities who might struggle with multiple systems.

Overall, these features significantly improve the accessibility of video content, helping to ensure that all students, regardless of their learning needs, can engage fully with course materials.

Are there any other elements of note relating to your Video Editing solution which you have experienced or observed?

One notable element of our video management system, Panopto, is its integration with analytics. Lecturers have the ability to track student engagement with video content through detailed viewer analytics. This includes data on how much of a video students have watched, how many times they've revisited certain sections, and their interaction with embedded quizzes. These insights help lecturers identify areas where students may be struggling and adjust their teaching accordingly.

Also, the mobile-friendly nature of Panopto will be particularly valuable. Both staff and students can upload, edit, and view videos on mobile devices, allowing for greater flexibility in accessing and creating content anytime and anywhere.

These elements will further contribute to the video management system's success in supporting flexible, data-driven, and accessible learning experiences across the institution.

What recommendations would you have to other HEIs looking to introduce or improve a Video editing solution in their institution?

For other Higher Education Institutions (HEIs) looking to introduce or improve a video editing solution, the following recommendations can support a successful implementation:

- Initially, we feel it would be best to start with identifying the video editing needs of both staff and students. Not all departments or staff may require advanced editing tools; some may actually benefit from a more simple, user-friendly platform. It's important to offer a solution that meets the broadest range of needs, from basic editing for lecturers to high-end tools like Adobe Premiere Pro or FinalCut Pro for creative departments.

- At this point, consider solutions that integrates seamlessly with your own HEI's VLE. Integration simplifies access and reduces technical barriers, which is key to user adoption. Features like Single Sign-On (SSO) and easy embedding of video content into course materials support a streamlined user experience.

- It will be critical to establish a support system for training staff and students on the new platform. Ensure there is a combination of workshops, online resources, and personalised support through a dedicated team like CELT/N-TUTORR/technical support. Training needs to be accessible for all levels, from beginners to advanced users. Additionally, ongoing support is crucial to help users build confidence and stay updated on new features.

- Critical for success is to select a video editing solution that enhances accessibility, such as offering automatic captioning, adjustable playback speeds, and mobile-friendly access. These features ensure that all students,

including those with specific learning differences and needs, can fully engage with, and benefit from, video content.

- Across your HEI, be sure to outline that creative use of video editing for not just teaching, but also student projects, peer learning, and Institutional communication. Highlight success stories and innovative applications from within your Institution to inspire broader adoption.

By focusing on ease of use, strong integration, comprehensive training, and accessibility, HEIs can successfully implement a video editing solution that enhances teaching, learning, and engagement.

Do you have any other comments or observations regarding Video Editing for higher education?

Video editing is becoming increasingly important in higher education, not just as a tool for content creation but as a critical component of the digital learning environment. As the shift toward blended and online learning continues, video will remain central to how students learn and interact with course materials.

Another observation is the growing trend toward interactive and personalised learning experiences. Video editing platforms that allow for features like in-video quizzes, annotations, and closed captions not only enhance accessibility but also promote active learning. Students are no longer passive viewers but can engage with video content in more meaningful ways, which improves retention and understanding.

Lastly, as video content continues to play a role in assessment, institutions must balance the need for technical support with fostering digital literacy among students. Equipping students with video editing skills prepares them for an increasingly media-driven world, making video production a valuable skill for their employability.

Immersive video software

What is Immersive video software?

Immersive video software refers to programs or applications designed to create and provide access to immersive experiences through 360-degree video, virtual reality, 3D environments, 3D games, etc. This software is designed to allow users to capture and “stitch” video and/ or 3D spaces together to allow users to explore and engage with these environments in a fully immersive way.

The specifics of the immersive environment generally determine the range of opportunities available for user interaction within these spaces (e.g. virtual reality simulations, 3D games, etc). Immersive video software is used for a range of purposes, including for training simulations, virtual tours, immersive storytelling and as development environments.

Use Case

This use case was compiled by Atlantic Technological University

What software do you use for Video Editing in your HEI?

WondaVR Platform, Thinglink, Virtual Speech, ManageXR

Associated Hardware: Meta Quest VR Headsets, HTC Vive VR Headsets, Hololens (MR) Headsets & Dynamic Guides licence, DJI Mavic Drone, Ricoh Theta 360 Camera

How do stakeholders access and/ or use your Immersive Video Software solution?

Access to the resources mentioned above is provided through engagement with the Advance Centre Project – Professional Education for Digital Transformation. Software and Hardware are provided and managed by the project's Instructional Designer Yvonne Sarsfield. Yvonne works directly with specific staff, students and additional stakeholders engaged in the project.

What is the Immersive Video Software solution used for in your HEI?

Immersive Video Software is being utilised as part of the Advance Centre Project – Professional Education for Digital Transformation. This is a HCI funded project under HCI Pillar 3. The project was founded in 2020 and will conclude in March 2025. Its primary aims are to:

Identify and address the future skills needs in Industry
Focus on digital transformation skills in industry, particularly in engineering
Enhance flexibility through the provision of modular courses

The Advance Centre now offers a series of accredited digital transformation focused modules, special purpose awards and micro-credentials (L6-L9). These are supported by industry partners who advise on trends and needs in industry.

What needs in your HEI does the Immersive Video Software solution address?

Immersive Video Software is used on the Digital Construction Technology Module on the Bsc (Hons) in Construction Management. In this module immersive video is utilised to transform the learning experience by facilitating a more hands-on approach.

Key focus areas included:

The practical application of technology and software
Encouragement of student collaboration through a student-led, design and project management assignment.

As part of this project immersive video has also been utilised for automation training to allow students to engage with equipment, mechanisms and processes.

How does the Immersive Video Software solution support teaching and learning?

In relation to the Digital Construction Technology Module, immersive video supported the teaching and learning objectives mentioned above through demonstrations of the VR and drone technology, as well as the Thinglink platform. As a result, students were able to utilise Thinglink, VR and drone footage provided in their course work. This proved to be an effective alternative assessment method.

With regards to automation training by enabling VR in CIROS Software learners were able to enter a 3D world at the click of a button. This simulated complex factory automation allowing students to engage in training without any risks to people or equipment. Together with this it facilitated location independent learning.

When was the Immersive Video Software initially rolled out? Was there a pilot or trial process? Where did the demand or initial request for the software come from?

The initiatives mentioned above are part of a limited term project and are therefore trials. There is an AR/ VR room currently under construction in the Department of Engineering at ATU Sligo, however the manner in which these activities will be integrated beyond the life of the Advance project remains to be seen.

What training or supports are in place for the Immersive Video Software solution?

The primary source of training and support for students and staff engaged in immersive video activities associated with the Advance project is provided by the project's dedicated Instructional Designer Yvonne Sarsfield. Yvonne provides in-class demos as well as on-demand advice training and support

Does the Immersive Video Software solution integrate with or connect in some other way to other components or tools in your digital learning or IT infrastructure? What benefits does this bring?

No, these are closed, stand alone systems. This provides some challenges in relation to usability.

Can you think of any innovative ways individuals or units in your HEI have used Immersive Video Software solution?

Please see the descriptions of the activities utilised in the Digital Construction Technology Module and automation training described above.

Have you received any feedback on the Immersive Video Software solution in your HEI??

The feedback from both staff and students who have engaged with immersive video software through the Advance project has been overwhelmingly positive. There is considerable enthusiasm for this technology. Comments included:

“The integration of new technology significantly enhanced my teaching methods and student engagement”

“Using VR in the classroom brought the subject to life in ways I never imagined”

“Seeing students actively participate and enjoy the learning process was incredibly rewarding”

“The activity introduced has not only improved the learning experience but also made it easier to assess student progress in real-time”

“The immersive learning experience made complex concepts easier to understand and remember”

“The new technology made learning more interactive, engaging and fun, which kept me motivated!”

Does the Immersive Video Software solution in your HEI address or enhance any accessibility issues?

Immersive video addresses issues relating to accessibility by facilitating remote learning and participation in simulations as described in relation to automation training above.

Immersive video has also facilitated the provision of a successful means of alternative assessment as described in the construction module. This accommodates a broader spectrum of learners and alleviates the potential for unintended barriers, in-line with UDL principles relating to multiple means of assessment.

However, as noted above these are closed systems which do not integrate with existing learning platforms and this has presented some challenges in terms of usability.

Are there any other elements of note relating to your Immersive Video Software solution which you have experienced or observed?

None

What recommendations would you have to other HEIs looking to introduce or improve an Immersive Video Software solution in their institution?

While the introduction of immersive video software proved tremendously beneficial for participants who engaged with it, the facilitation of these activities presented a number of challenges.

The complexity of the technology involves a steep learning curve. Together with this a significant amount of research is required to both ascertain and stay up to date with technological developments in the area. The leading-edge nature of this technology also means that IT assistance will likely be limited.

Seeking the approval of internal systems for the use of this technology e.g. via the software committee or DPO screening can be a complex and time-consuming process.

As noted above the systems themselves are a highly restrictive/ locked down infrastructure, presenting significant challenges in relation to usability. Together with this, practical issues with the use of the equipment e.g. wifi problems relating to headsets were commonplace.

Another practical consideration in the use of this technology is the physical space required for demonstrations and the storage of headsets and other associated hardware.

As in all matters relating to innovation and change gaining faculty commitment and buy-in from time-poor staff can be challenging. For this reason, it is important to ensure related content is easy to adopt, usable for all learners and UDL compliant.

Do you have any other comments or observations regarding Immersive Video Software for higher education?

None