REGENT COLLEGE LONDON

REGENT DIGITAL

DELIVERING A HIGH-QUALITY DIGITAL LEARNING EXPERIENCE FOR STUDENTS

ADVICE AND GUIDANCE DOCUMENT

CONTENTS

INTRODUCTION

Engaged and Inclusive Digital Learning

The impact of a move to online learning as a result of COVID-19 has caused many in Higher Education to consider how particular forms of digital technology can be utilised to greatest effective and whether they are an acceptable substitute for face-to-face teaching. This is not the focus of this guidance as it would seem to present a false hierarchy and division between on-campus and digital learning.

Campus lectures, seminars and tutorials are not intrinsically stimulating because the people are in the same room, nor are they necessarily ineffective if they do not use digital technology. Equally, digital learning can be as engaging or disengaging as any other form of learning experience. The effectiveness of any teaching activity is determined by the extent to which the student is gaining new and valuable learning not by the use of digital technology per se.

For an active learning experience to be realised, the method of engagement, whether digital, in-person or through a blended approach, should empower the student to become a critical, creative, intuitive and imaginative person who can work within a community of practice. The specific content and format is something for staff and students to navigate together. In this context benchmarks can help to ensure that the learning experience is inclusive, engaging, and effective.

The need for new guidance for active digital learning in Higher Education

There is already a great deal of advice and support within the sector – not least with JISC, the QAA, Advance HE and other organisations – that seeks to provide guidance for using digital technology to deliver effective learning and teaching. Many higher education institutions would also argue that they have been engaging with new technologies for many years and are often at the cutting edge of innovative enhancement in digital learning and teaching approaches.

As we will consider in our executive summary, however, evidence from student experience surveys which gather information on digital learning technologies, suggest that there is a divide in perception between students and higher education institutions about the effectiveness of the systems in use at present. This raises questions concerning the criteria for what determines an advanced application of digital technology for learning, teaching and assessment.

Our document is intended to contribute to the formation of a common framework of digital learning and we offer it as an open source of material to be shared with all those who are grappling with the challenges of determining what constitutes a high quality digital learning experience.

1. EXECUTIVE SUMMARY – THE NEED FOR GUIDANCE IN DIGITAL LEARNING

In its June 2020 survey of student experience, the Higher Education Policy Institute (HEPI) reported that only 7% of students surveyed regarded the use of digital technology within their courses to be 'advanced', with 90% describing their institution's use of technology as basic and 3% experiencing no technology at all. This report came shortly after the moment when all higher education organisations had closed their campuses at the end of March 2020 due to the COVID-19 lockdown, and the majority of organisations had moved all their teaching, learning and assessment activity online.

The HEPI report surveyed students both before and after lockdown and found that those students who judged the use of digital technology in their courses to be 'advanced' also reported a higher level of satisfaction with their course, value-for-money, and readiness for graduate employment. It is important to note that the definition of 'advanced' technology is open to a wide interpretation, however as one experienced HE professional has commented in response to the survey:

> *Student perceptions of the technology used by universities are likely to be heavily influenced by their experience of technology beyond their course. The wide range of technologies students have access to will include highly sophisticated, constantly updated platforms and hardware that have been developed by commercial organisations who invest heavily in user research and user experience design in order to maintain their competitive advantage. In comparison, university systems may seem dated, placing function before form as limited resources are directed towards essentials like security, privacy, accessibility, and dealing with technical debt, rather than user experience. It is unsurprising, therefore, that students feel this way about the technology used on their course.*
>
> *Source - Regent Group survey of HE sector view post COVID-19, June 2020*

It is important here to distinguish between online and digital learning. We will discuss our understanding of digital learning in due course. For the purposes of this document we regard online learning as that which has been designed to convey courses through online platforms without necessarily altering an 'analogue' method of learning defined by lecture capture with course documents uploaded onto a Virtual Learning Environment and online assessment submission through such systems such as Turnitin. This would seem to fit the category of basic technology identified in the HEPI survey which states:

> *The overwhelming majority (of students) report that the technology is basic, rather than advanced. This is perhaps surprising given the innovative approaches that are showcased regularly through conferences and events across the sector, but these data imply that such innovation is currently the exception rather than the rule.*
>
> *Source - https://www.hepi.ac.uk/2020/06/11/the-student-academic-experience-survey-2020/*

The HEPI survey suggests that most campus-based higher education courses continue to use a standard level of technology in their delivery regardless of being either online or face-to-face. The fact that many in the sector can point to examples of excellent innovation within their own institutions can often be used to disguise the fact, highlighted by HEPI, that much delivery in HE remains stubbornly conventional. As many sector professionals have understood the challenge for effective digital learning is a matter of investment and support:

> *Most academics are not trained in teaching online or designing content for online delivery. It is not a case of simply transferring stuff from face to face to online delivery. Ideally, the modules/quals are written with online delivery in mind at the outset or time is put aside to redesign for online delivery if there is a switch in delivery mode. This means institutions need to commit time and money to staff development. You need to invest in your staff – development and training. You need to consider student needs – access,*

equality etc. You need to design programmes that work synchronously and asynchronously; you cannot assume that all students have the latest technology. You need to consider what tech meets your needs – it is not about having the latest tech, it is about having something which is reliable, meets most students' needs, and the needs of the institution.

Source - Regent Group survey of HE sector view post COVID-19, June 2020

It is important to acknowledge that this move to a digital delivery will impact on conventional sector expectations about what constitutes a valid learning event– including amongst funding bodies. Organisations such as SLC and UKVI have previously required students to be physically present on campus and undertaking learning with lecturers that is entirely synchronous – discounting online and asynchronous learning activities. The feedback from students and academic staff who experienced digital learning post COVID-19 is that the delivery of asynchronous digital learning experiences was very liberating for students. The asynchronous learning events took an approach in which the tutor offered material for thinking and learning to the student, but it was for the student to determine when, and in some cases how they engaged with this material. Examples provided from those reviewed in the sector included opportunities for the student to manage their own learning responses and work together in self-organised teams with fellow students at times and through methods which suited the students. Tutors set more open task-orientated activities which allowed the students to respond as they saw fit with tutors able to provide asynchronous feedback and advice without the student necessarily engaging with them directly at all times.

Some providers initially implemented an asynchronous approach because of the problems which some students who did not have access to good broadband experienced during synchronous learning events and live online lectures, which potentially disadvantaged the student. However, when the asynchronous digital learning was used to replace these synchronous live events the students responded positively because it meant that they could organise their learning around the demands of their lives and circumstances. This approach was particularly beneficial for students who have complex commitments, support needs or who are less confident in responding during live engagements but can produce excellent quality engagements when given the time to consider their responses. Many providers have reported that the students who appeared to be less engaged during physical lectures or seminars often excelled in the digital and asynchronous learning environment where there was no pressure to compete with other students in a live environment. This must surely cause organisations to review how student engagement is measured in future.

2. DIGITAL BY DESIGN

Building on these comments above, this guidance document presents an approach to learning which could be conceived as 'digital by design' in the construction of the future learning and teaching landscape for higher education students and staff. Where digital and face-to-face learning can exist in parallel the student has the opportunity to choose those forms of engagement which suit them. Within this paradigm shift, active digital learning, teaching, and assessment is at the core of flexibility in future student engagement:

> *Providing high-quality online learning materials from both an academic quality perspective and a user interface/ experience perspective should become the norm, this should be backed up with face to face seminars on campus or remotely or through a hybrid of some students on site and some through a virtual connection. There should be a joint approach to new models of delivery across the Teaching & Learning teams, the TEL teams and the Estates teams to ensure that the pedagogical principles are being set and met and the technologies and physical learning spaces are fit for purpose. This would provide an opportunity for an approach to estates rationalisation, by developing a hybrid onsite/ online delivery model the estates strategy should focus on developing a limited number of high-quality learning spaces while reducing the overall number of physical learning spaces in use*
>
> *Source - Regent Group survey of HE sector view post COVID-19, June 2020*

The concept of 'digital by design' looks at how, from the moment a course is conceived and throughout the design, validation, delivery and award stages, the opportunities for digital learning takes an 'inside-out' approach rather than 'outside-in'. The integration of digital learning is at the heart of an entire eco-system of delivery and it is embedded at the point of creation rather than considered only when programme delivery methods are decided. Digital technology has redefined the learner/ teacher/assessment relationship and allows courses to be truly co-created. Students and staff not only determine the subject of study but can consider a range of digital learning approaches to interpret the same questions raised within each discipline of study in different, and individual ways. This opens up the most flexible modes of learning that are already being envisaged in some universities as a response to the changing world beyond the immediate impact of COVID-19 – as Michael M. Crow, President of Arizona State University has outlined:

> *The disruption caused by COVID-19 is a chance for public universities to truly democratise access to higher education, differentiate their offering and cooperate more deeply with each other...Arizona State University now operates in "three simultaneous modalities": a blended learning approach called "full immersion on campus"; an asynchronous online approach called "digital immersion", which generally caters for students who are in employment; and a third approach, which has been built since COVID-19, known as "full immersion synchronous", in which students learn in real time but are not on campus. The institution has about 70,000 full immersion students, and a similar number enrolled in a digital immersion programme. All three realms include a component of "technology-enhanced learning" in order to effectively teach students from a diverse range of backgrounds, but Professor Crow said it is a "misnomer" to call the new approach taken in the wake of coronavirus "online learning". "This isn't online learning. This is full immersion – I can see you," he said, referring to faculty-student working relations..."We're going to be operating in the fall semester in all three modes at the same time," said Professor Crow. "We're going to have students on campus in highly healthy structures with testing and masking and all kinds of other things, then we'll have some students synching in and synching out, and then we'll have thousands and thousands of students also online, all [being taught by] the same faculty.*
>
> *Source - https://www.timeshighereducation.com/news/ michael-crow-crisis-should-herald-cooperation-and-differentiation, June 10, 2020*

Application, admissions, appointment and development strategies should include an audit of the digital learning skills,

resource accessibility, training and support needs of all students and staff to ensure they have a sufficient level of digital literacy, or perhaps one might say digital intelligence to match the emotional intelligence skills that are now understood to be of such value for the future success of students. This development of new skills is crucial to the achievement of graduate attributes. Looking at the future employment trends post the COVID-19 pandemic, all of us will inevitably face a future which is increasingly digital regardless of the area of discipline studied at University. This will also mean that the development of programmes should involve the providers of digital technology, as is often the case with other countries. It is not just the computer sciences, web and app design, business and finance-based courses which are impacted by the digital world. Artificial intelligence, online working, augmented and virtual reality will affect everyone.

> *There are real benefits for students in using technologies that are commonly used in workplaces – this should be a key part of their preparation for employment. While there may be security concerns from some for parts of the student journey, these issues can and should be overcome, to give students an experience that will help them transition into graduate employment. If Universities are to maintain their dominant position as providers of high-level knowledge and skills, they must provide students with the kind of digital literacy that will enable them to offer employers what they want.*
>
> *Source - Regent Group survey of HE sector view post COVID-19, June 2020*

The arts, education, medical sciences, STEM subjects, humanities, and languages all now have significant spaces within the digital world which have created new forms of employment and entrepreneurship – some carved out during the COVID-19 pandemic. It is surely inconceivable for anyone in the higher education sector to argue that a student can move into employment and undertake a lifetime in different careers and not have significant engagement with digital learning. The new workplace of the home for those who have been in lockdown has required technology skills to be learned very quickly and has created a new concept of what constitutes a workplace and learning space.

The impact of COVID-19 and a creation of this digital by design learning approach will need to be measured and benchmarked as a core element of the higher education experience. While questions remain around future virus outbreaks, the environmental impact of travel, the health and well-being of individuals and what constitutes future productivity, some of the solutions to these challenges will undoubtedly be either partially or entirely digital. Our society is becoming a digital ecosystem and the students of the future will need to be fully equipped to enter this world as graduates and citizens.

3. TERMINOLOGY

[Taken from the QAA definitions of learning and teaching in their advice and guidance document]

Learning: The process through which students acquire new, build on, or reformulate existing, knowledge, skills, and practice. 'Teaching' is any activity that facilitates this learning.

Effective learning and teaching: Learning and teaching that enables student achievement towards their intended qualifications or awards, through education that they, and other stakeholders, value. This may be monitored through providers evaluating learner engagement levels.

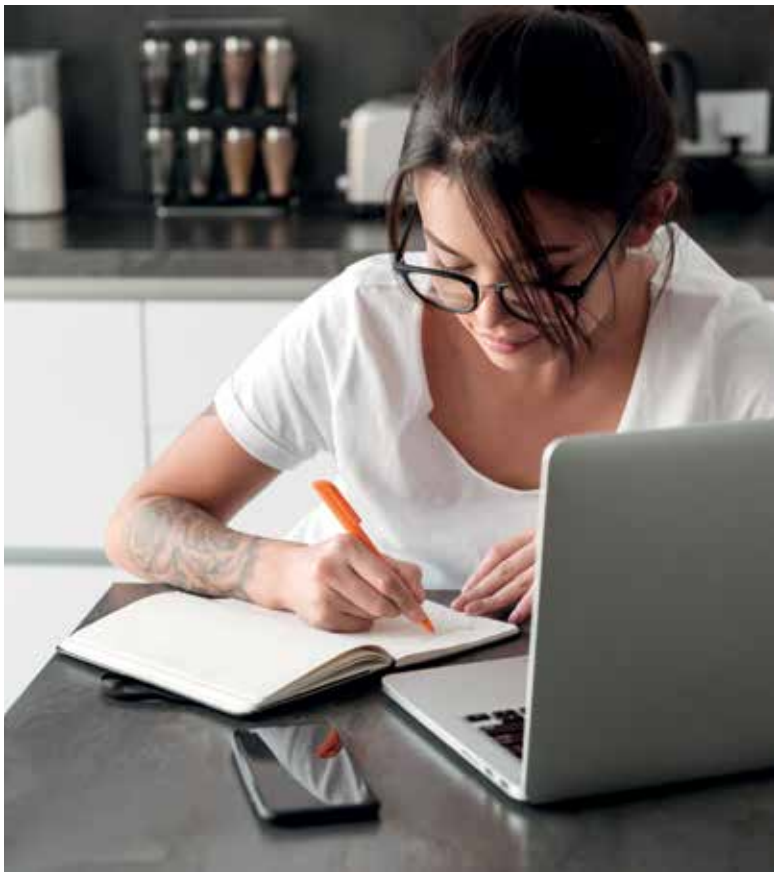
Stakeholders: The wider community of individuals and bodies that inform, influence and/or contribute to learning and teaching practice in higher education.

Building a Taxonomy for Digital Learning

In the recently published document **Building A Taxonomy of Digital Learning** (June 2020), the QAA state the following:

> *As a result of COVID-19, most providers have had to pivot quickly to a greater use of digital approaches to delivery. It was clear in these discussions that the different approaches, and for some the speed of their adoption, have highlighted the variety and disparate use of terminology used to describe the digital learning experience on offer across the sector. The challenge for providers is, therefore, how to effectively communicate and describe what they will be offering their students in 2020-21 (and beyond) and how they will ensure the quality of this provision.*
>
> *By producing this document, QAA aims to help UK higher education providers build a common language to describe digital approaches to programme delivery and support them in setting students' expectations of their programmes. It looks to define some of the most common terms that providers use to describe the ways in which they and their students engage with digital teaching and learning. It also seeks to go further and provide broad classifications of the type of experience a student can expect when engaging with education and training programmes that include digital elements ranging from 'passive' to 'immersive' digital engagement and experiences.*
>
> *Source- QAA, Draft Document – Building A Taxonomy of Digital Learning*

The QAA then go on to define several terms that cover the different forms of digital and blended learning within the sector – and the variety of ways these terms have been interpreted. As the QAA themselves suggest the phrase Digital Learning is perhaps the best overall term to comprehensively cover the areas under consideration in this document.

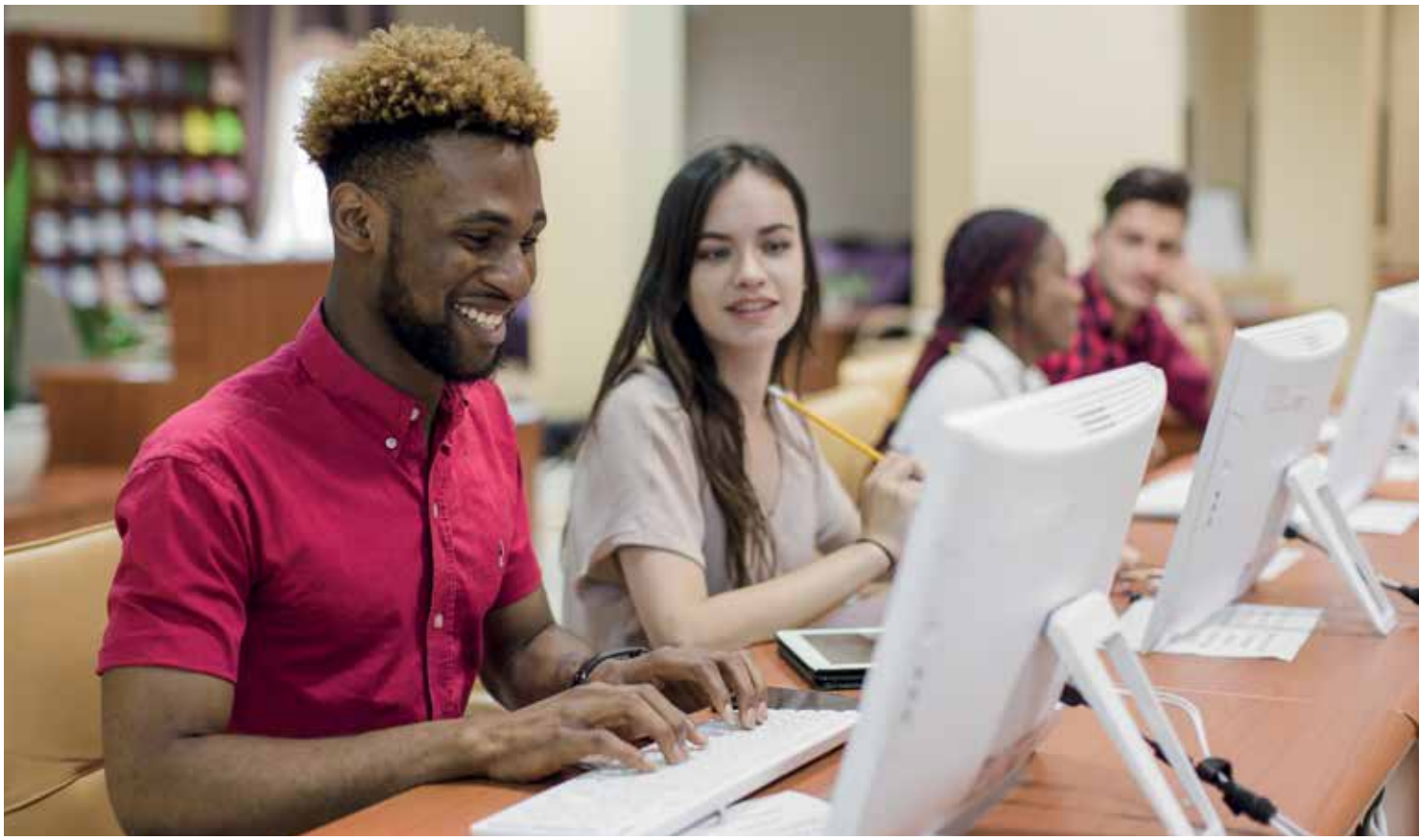


4. WHAT IS DIGITAL LEARNING?

In considering the different terminologies used to describe learning the QAA considers the common terms 'online' and 'virtual' learning and suggest that these could be better expressed through the term Digital learning:

> *The term digital is an umbrella term that is increasing in use in the higher education sector. It is inextricably linked to the storage of data but has developed as a term to mean involving or relating to the use of computer technology, exemplified by the use of the terms digital skills or digital literacy. When compared to analogue, it also has positive connotations for some as it suggests that things have developed compared to more traditional ways of doing things. It is widely understood that digital information can be accessed offline and it can be engaged with in a variety of situations (onsite, or offsite, in-person or remotely). Digital ways of working are still linked to the storage and use of information, so it also does not carry with it any suggestion of being inauthentic. Therefore, digital does not seem to have the same connotations as online or virtual and instead seems to be a more neutral term. Its use, therefore, could give providers a greater opportunity to go further than just using the term and articulate what a digital learning approach would look like for their students.*
>
> *Source - QAA, Draft Document – Building A Taxonomy of Digital Learning*

We agree with this definition and feel that digital is the best term to describe the forms of learning which are considered in this document.



5. KEY TECHNOLOGY TOOLS THAT SUPPORT DIGITAL LEARNING

Key tools for supporting students in their learning and teaching experience have most commonly focused on Virtual Learning Environment (VLE) systems such as Blackboard, Moodle, Canvas and Adobe Connect to name some of the most prominent. Whilst other systems have been used for more advanced applications of technology for learning, teaching and assessment, VLE's have tended to dominate for most students in the sector. These tools have primarily been used to store course content, lecture delivery plans, online recording of course material and teaching, and the location for students to submit their assignments and receive grading.

It is only very recently, and largely due to the impact of the COVID-19 pandemic, that many Higher Education institutions adopted other technologies to engage their students as campuses were closed. Examples of some of these applications that have supported collective and individual digital engagements between students and staff are given below (not exhaustive):

Microsoft Teams and associated Microsoft applications such as OneNote:

- Virtual classes and meeting, channels for breakout and separate groups
- Chat facilities and instant polls, Screen share and Interaction
- Forms for enquiries, virtual assessment tools, grading, and feedback

Zoom:

- Virtual classes and meetings, breakout groups and room
- Student / group presentations, chat, and poll facilities
- Screen share and interaction

VLE / LMS Systems: Blackboard, Moodle, Canvas:

- Course content and management, lectures (collaborate), online materials, eBooks etc
- Assessments, feedback, grading, surveys, quizzes, interactive teaching tools
- Announcements and group communication, timetable integrations

Kahoot:

- Lecture delivery, in class games and interactive quizzes
- Online interactive learning activities, group working/ sharing
- Student presentations

However, as many have found the preparedness of both staff and students to adapt these forms of technology has been inconsistent and led to questions being raised about the quality of learning for students who have experienced their courses through these unplanned online arrangements in the latter few months of the academic year 2019/2020.

6. EXPECTATIONS AND PRACTICES IN ACTIVE DIGITAL LEARNING

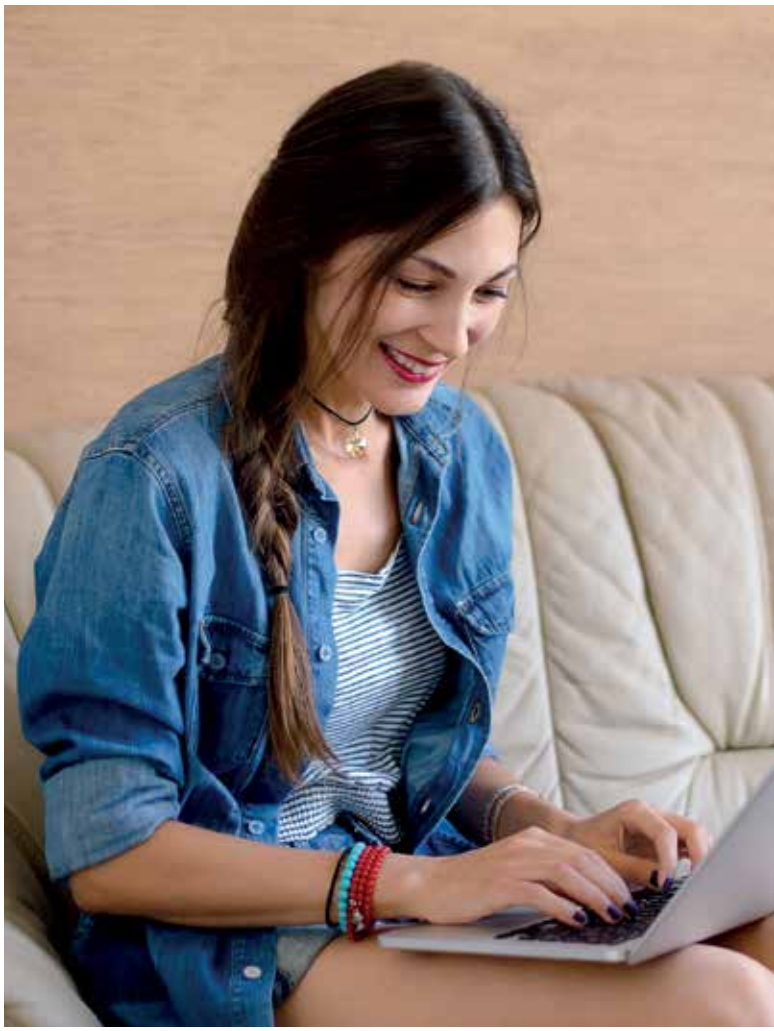
Expectations for quality in digital learning

Whilst digital learning does not exist within a regulatory context the definition of common practices and advice from the Office for Students (OfS) concerning ensuring that courses are CMA compliant in the delivery of digital learning will be something that needs to be demonstrated to ensure that students are given a digital experience that fulfils the outcomes defined in the advertised course.

To achieve high quality learning through technology courses need to be well designed and provide a high-quality blended experience through technology to enable students' achievement through digital learning and assessment opportunities that maximise student success. For all aspects of the student lifecycle there should be an integrated strategy for technology implementation that ensures that the student experience is coherent and comprehensive. Students should not be forced to work across multiple systems unless this is necessary for such areas as professional, statutory, and regulatory bodies (PSRB) approved courses.

Effective learning and teaching must integrate robust pedagogic approaches with relevant discipline knowledge and subject-specific and transferable skills with the most effective technology for engaging students in an active learning experience. The experience of digital learning should be appropriate to the discipline of study and level and the expectations for using technology within the sector in which a graduate would expect to work in the discipline being studied. The skills of academic staff need to be developed in the areas of learning technologies appropriate to their discipline so that they are able to provide both academic and pastoral support to students using the most effective technologies that are available wherever possible. As one experienced HE professional has observed in discussing the impact of the COVID-19 pandemic:

> *For staff [the impact of COVID-19) has been twofold, firstly, the urgent need for them to develop pedagogical skills to move to a blended learning form of delivery which has been coupled with a need for them to become more literate in the technical tools they will require to deliver online. Therefore, it has been a mix of why and how; why are these skills going to benefit me and the students and how do I use these tools?*
>
> *Secondly, counter to the common misconception amongst academic staff that a technology enabled form of academic delivery will require less input from academic staff the opposite appears to have become the norm, while academic staff are now less involved with delivering lectures the need for providing seminars, support and guidance has increased dramatically.*
>
> *Source - Regent Group survey of HE sector view post COVID-19, June 2020*



Employment processes for staff should include an audit of digital skills alongside a review of what skills might be expected for staff in particular roles, an institutional strategic plan for training, support and regular re-evaluation of how staff are maintaining their skills in a changing environment. Courses and institutions should identify champions in active learning technology who are given additional support to develop their digital learning skills to pass these on to colleagues through effective mentoring. Peer delivery is often the most effective way of enhancing the development of active learning technologies within an organisation. One example of how to achieve this is described below:

> *As an organisation that has been through a significant change management process to develop academic staff as providers of active learning we initially developed a process for evaluating the early adopter academic staff in both their pedagogical experience and their adoption of new technologies. This was done by surveying and holding focus groups with staff and students. The outcomes of this exercise were fed back into the change management workgroup that reported to the university's staff development committee and the academic policy committee.*
>
> *The outcomes of the exercise were used to develop a generic staff development programme and a specification for technological requirements. This has now become a continual review process that feeds back into the relevant academic committees and will no doubt this year take the current situation into account.*
>
> *Source - Regent Group survey of HE sector view post COVID-19, June 2020*

Students should also be consulted during the application, admission, and enrolment phases of entry into the institution to identify the resource and training support they will need to fully engage with the active learning approach of the institution. It is essential that organisations do not make assumptions about the students' capabilities, skills, or access to technical resources when they begin their studies:

> *There has been an assumption that traditional entry students are technically savvy and will be able to identify and use the appropriate technologies at the appropriate time and while it is true that students are capable of using mobile devices, social media applications and search engines it is also quite evident they don't know how to use tools appropriate for learning without some level of support and guidance. This is more evidenced with students from non-traditional backgrounds.*
>
> *The question then becomes one of who is responsible within a HE environment for developing digital literacy skills for students and how are professional and academic staff trained to provide the support.*
>
> *Source - Regent Group survey of HE sector view post COVID-19, June 2020*

Courses must identify the necessary transferable skills and graduate attributes that are linked to current and future workplace learning needs, as well as the requirements for any relevant professional body linked to the discipline of study. This should identify both the generic skills of core technology that will be good for any graduate to possess alongside sector specific skills identified by subject experts and relevant PSRB and industry partners. The approach to utilisation of digital technology should also consider the systems already available to the institution through existing licensing rather than assuming that new systems are needed. Staff competencies required to use these tools should be identified to achieve a consistency of experience for students. Organisations should adapt a strategic approach, led from the top but responsive to the views and experiences of staff and students to develop a truly inclusive approach to utilising digital technology in learning, teaching and assessment.

7. CORE PRACTICES FOR DELIVERING ACTIVE DIGITAL LEARNING

- ***The provider has sufficient and appropriately qualified and skilled staff to deliver a high quality learning experience through technology.***

In practice this means that providers ensure that individuals and teams involved in teaching students and supporting student learning and success demonstrate an appropriate knowledge and skills level to make effective use of technology to ensure that the students have an active digital learning experience.

- ***The provider has sufficient and appropriate digital technology and digital learning resources and student support services to deliver a high-quality active learning experience.***

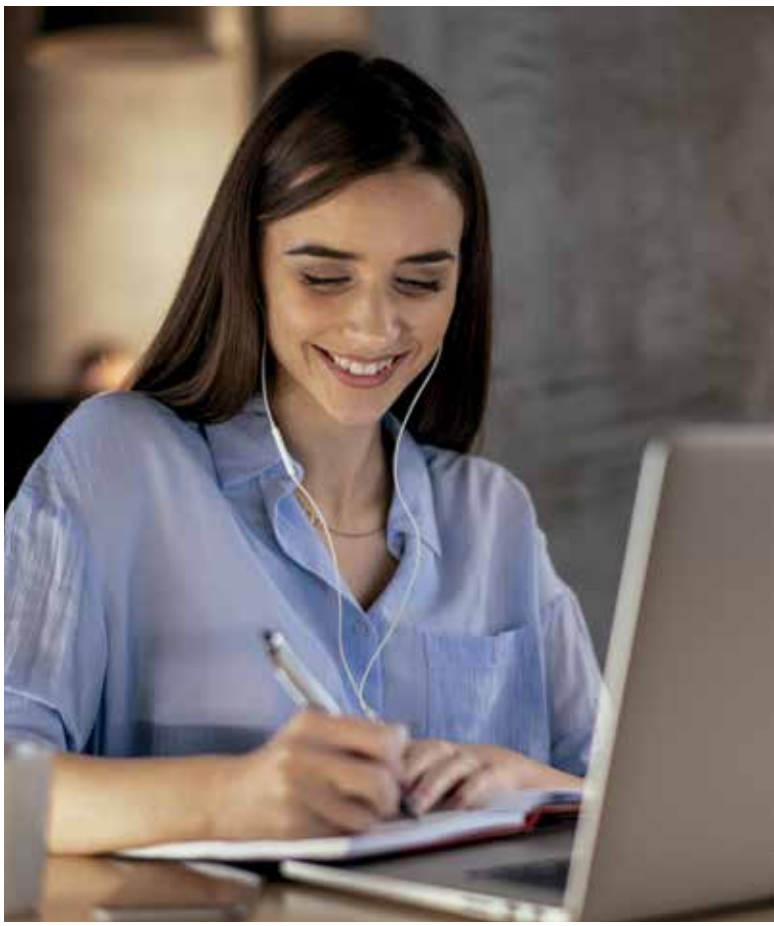
In practice, this means that providers plan carefully for the digital resources required for the delivery of the courses and invest and maintain an appropriate environment for delivery of active learning through technology. Technology and facilities for active learning should be accessible and relevant to the students' development of knowledge and skills and consider the individual student's circumstances. It is particularly important that the organisation does not make assumptions about the students' technology needs and available resources.

- ***The provider actively engages students individually and collectively in the quality of the active learning provided through the implementation of technology.***

In practice students should be asked to complete relevant and timely evaluations of their experience of the digital services of the organisation that support the student in general and specific technologies that support the student learning experience. Institutions need to have a new framework for digital learning engagement which ensures that the quality of student/staff interaction using technology is equivalent to that achieved in the highest quality face-to-face engagement and can be benchmarked against the expectations of students.

- ***The provider supports all students to achieve successful academic and professional outcomes in the experience of active learning through technology.***

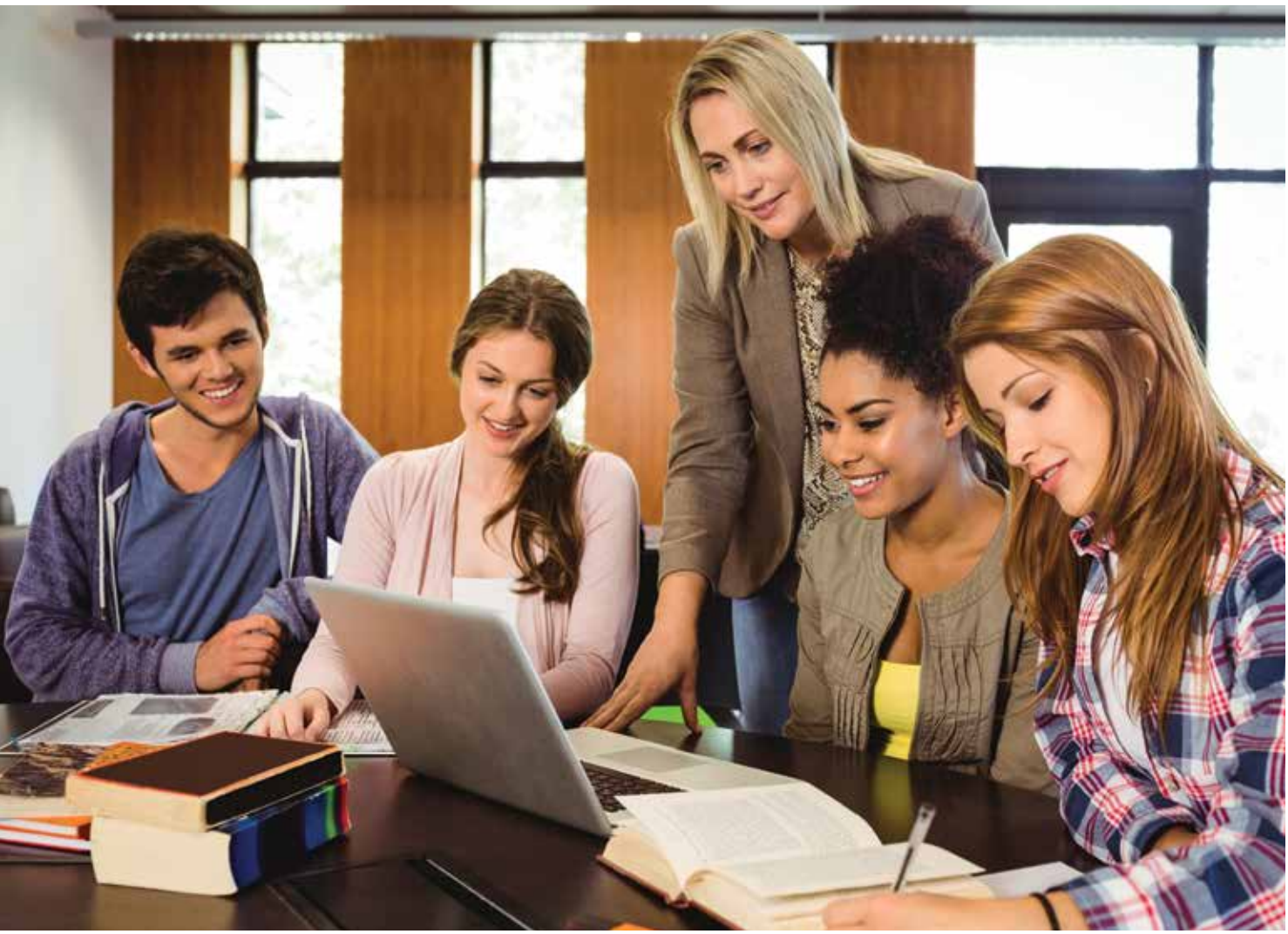
In practice, organisations need to review the existing statements for learning and teaching within the organisation and translate these into the context required to deliver active learning through technology. This should take into account the graduate attributes and employability skills required for the different circumstances of particular students, including the those students who from diverse backgrounds who may already be engaged in a learning context through placement or apprenticeships where the technology supports their workplace learning. These skills reviews also need to be benchmarked against the future trends in employment.



8. COMMON PRACTICE IN ACTIVE DIGITAL LEARNING

- ***The provider engages students individually and collectively in the development, assurance, and enhancement of the quality of the experience for students when they are utilising technology for active learning.***

In practice organisations will need to consider core engagement techniques and practices that are most valuable and effective to ensure that active learning through technology is evaluated in terms of effectiveness and impact on student success. The evaluations should then be applied to future course development and the training of staff and students to ensure that the future use of technology to deliver active learning is informed by the evaluations of student experience. Organisations will need to consider how all students are given the opportunity to participate in these evaluations regardless of circumstances and there should be a 'You said, we did' style response to demonstrate how feedback on the use of technology in learning has impacted on new development.



9. GUIDING PRINCIPLES FOR ACTIVE DIGITAL LEARNING

1. Organisations need to ensure that their strategic plan includes a detailed strategy for developing and reviewing the complete student digital journey throughout the lifecycle so that both students and staff benefit from coordinated and integrated planning for the successful implementation of systems to enhance student learning through technology.

In practice, this strategic planning should provide clear links between learning and teaching approaches and the IT infrastructure plan as well as the staff development, training, and support plans of the organisation. The IT implementation should be part of an ecosystem of integrated learning methodologies.

2. Effective use of technology to deliver active learning is underpinned by a focus on student achievement and outcomes.

Providers should ensure that the learning and teaching outcomes are focused on the measurable achievements of active learning through technology by using effective methods of evidence including formative and summative assessment. Providers should seek to define active learning outcomes that are linked to the implementation of technology so that students and staff can evidence the development of core graduate attributes and employability skills linked to PSRBs where relevant. Institutions should ensure that there is equality of opportunity for students to develop academic and professional skills in digital learning.

3. Equivalent active learning and teaching that makes full use of technology should ensure there is high-quality learning experience for all students irrespective of where, how, or by whom it is delivered.

In practice this should mean that the standards in the quality of technology-enhanced learning should be consistent with all other forms of learning and are also aligned across partner institutions and also for students undertaking work experience and/or apprenticeships as part of their programme. The provision of digital learning for all students should be accessible, clearly communicated, understood by students and staff, and utilised to the highest possible capability and quality as appropriate to the subject being studied and any relevant professional skills.

For the delivery of active learning through technology, the provider should ensure that students from diverse learner backgrounds can be supported in achieving equality of experience that reflects their own unique circumstances and access to resources. It is important that institutions enable students who might be disadvantaged in their access to appropriate learning spaces and technological resources to overcome these difficulties rather than reinforce inequality.

4. Effective digital technologies that are utilised for active teaching and learning should be informed through reflective practice and providers should enable staff to engage in relevant, timely and appropriate professional development that supports students' learning and high-quality teaching.

Providers should review the continuing professional development for staff and undertake the creation of a skills matrix for staff to ensure they are all equipped and supported to deliver effective learning by agreed technology. As part of the strategic plan, the organisation should create a training plan and develop champions to support academic staff to learn and share best practice in active learning through technology.

5. Effective application of technology to deliver an active learning experience for students should be underpinned by a routine evaluation of provision to manage and enhance learning and teaching activities, including the achievement of qualification and award outcomes.

Providers should ensure that the levels of student engagement with learning technology are constantly reported on – preferably through mechanisms that can easily identify areas where students may be at risk of not engaging and appropriate action can be taken. Students and staff should be given regular opportunities to evaluate the provision of technology in teaching and learning activities in both individual modules and units and the course. This information should then form part of the feedback which impacts on future course development and learning and teaching approaches which use technology such as the VLE.

6. Effective active learning and teaching activities, facilities and resource that use technology as the primary method of engagement with students make the learning environment accessible, relevant, and engaging for the student.

Providers should ensure that the utilisation of technology for active learning and teaching should promote an accessible and engaging experience for all students. Where the learning environment is home-based and students and staff are depending on the equipment they have access to then the organisation must ensure the student and staff have all necessary resources and equipment to experience a high quality learning experience. Providers must decide how to overcome any areas of disadvantage in digital technology to ensure parity of experience for all students.

7. Effective application of technology to deliver learning and teaching ensures that information, and support for, technology-enhanced learning and teaching is clear and accessible to all students and stakeholders

Providers should evaluate the quality of information and support provided to supplement digital learning and consider how specific areas of student experience such as work-based learning, partnership and apprenticeship courses are appropriately served by effective digital learning techniques.

8. Effective use of technology to deliver learning and teaching should enable students to take responsibility for their own learning and become resilient individuals, equipped for a rewarding career through effective application of skills in technology in the workplace.

Providers should enable students to become active participants in the co-creation of their learning experience through effective use of technology. Where individual students have distinct learning styles, providers should adapt the use of technology to deliver an active learning and teaching experience that is flexible and responds to the needs of students.

9. Providers encourage and enable students to evaluate and manage their own learning development through the effective implementation of technology and supported by engagements with staff through digital learning techniques.

Institutions need to consider how the technology they use to deliver the learning, teaching and assessment strategies of the organisation can enable students to develop their own learning experience in an increasingly independent manner during their course of studies.

10. Providers should clearly communicate technology-based learning outcomes and graduate attributes linked to digital learning and skills to all current and prospective students, staff, and associated organisations

In practice, providers should ensure that their mapping of learning outcomes in the process of course construction, design and validation identifies specific learning outcomes which connect the delivery of active learning through technology with the other learning and teaching outcomes of the programme. These outcomes should be agreed between students, staff, PSRBs and other external bodies who work in the industries in which graduates are likely to pursue careers as part of the programme design and approvals process.

10. PRACTICAL ADVICE FOR ACTIVE DIGITAL LEARNING

This section provides practical, contextualised advice to providers on how to make effective use of technology to deliver active learning and teaching.

Effective use of technology to deliver active digital learning

Effective use of technology to deliver active digital learning and teaching should, in practice, feature:

- Delivery by academic staff, support staff, digital development staff and students who have all been provided the necessary development skills, knowledge, resourcing and experience to ensure that they can implement the technology to achieve the highest quality learning experience.
- Delivery of technology-enhanced active learning and teaching by individuals with appropriate expertise to support the effective implementation of these methods
- Inclusive learning and teaching practice in which technology delivers accessibility for all students regardless of background and circumstances
- Higher education providers, staff, students, and other stakeholders should be using the available technology to enable effective partnership working with students as co-creators of their learning experience
- Technology in learning and teaching should support students and staff when working in a range of environments, which may extend beyond the provider and include partner bodies, employers and home-working

Reflective question

What steps do you and your organisation take to ensure that technology is used to maximum effect to deliver active learning and teaching for your students?

Inclusive learning and teaching design for active learning through technology

Courses have a duty to ensure that all students – including those with any protected characteristics and specific learning needs – are not placed at a disadvantage by the approaches to learning and teaching. When used effectively and thoughtfully, technology can produce active learning and teaching with **increased** levels of accessibility for all students. However, there are risks when assumptions are made about students and staff being able to access the technology used for teaching and learning, particularly when that is taking place offsite and in the home.

Encouraging an active learning approach which makes effective use of technology

How much does current course design and development consider digital learning approaches and methodologies for technology-enhanced learning? Validation documents often only refer to the VLE in the traditional sense of handling course content and assessment submission which does little more than upload existing course materials. Curriculum and learning design should take a 'digital by design' approach by fully assessing the creation of new forms of active learning and teaching through the application of appropriate technologies.

Reflective question

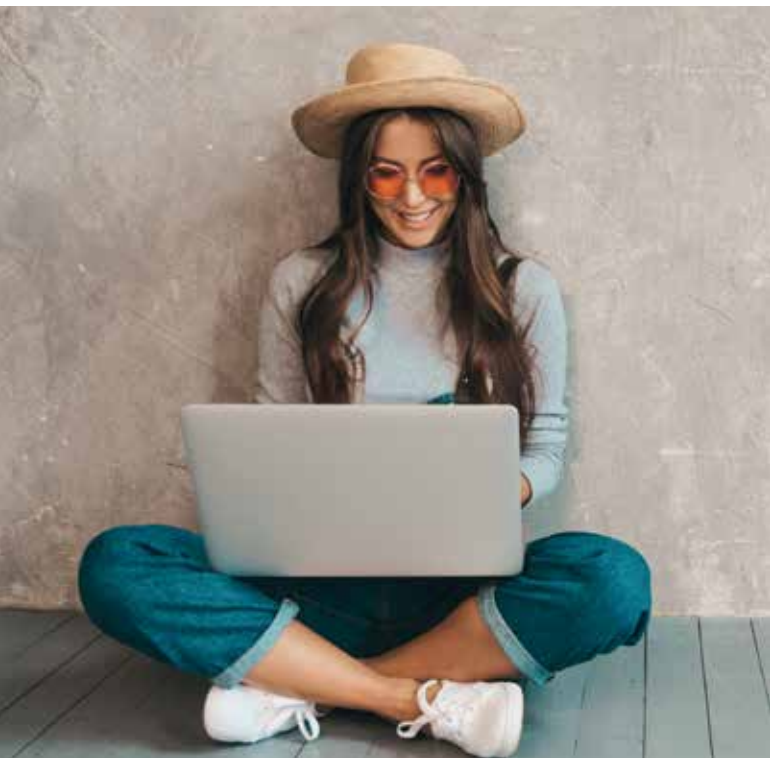
Does your institution's strategy articulate an integrated approach to implementing technical solutions to deliver an active learning and teaching experience which is of high quality and inclusive?

The role of technology within active learning and teaching methodologies to support the development of graduate attributes

The application of technology in the delivery of active learning and teaching approaches should be designed to develop a range of graduate attributes which include competencies in operating relevant software which the student is likely to encounter in the workplace. Technology in learning and teaching can be utilised to support team-working, problem solving, data analysis, creative and critical thinking. There will also be some specific skills in technology which some courses will require, particularly if they are approved by a PSRB or relevant employer providing work placements and/or apprenticeships for the programme.

Reflective question

Do you consider the relevant technical skills that students might need to utilise on graduation linked to both general trends in workplace technology and discipline specific applications?



Assessment and Learning

Use of technology to deliver active learning and teaching should be reflected in the nature, form, and content of assessments in which a strong technical element is present. This goes beyond the use of standard VLE mechanisms for submitting online assessments and should require assessments to enable students to construct and manage their own learning through increased collaboration with peers and self-defined assessment activities.

Organisations should consider how different assessment methods can utilise emerging technologies to be more engaging for students, reflect different learning styles and develop the cognitive skills required for future success. Courses should consider how they can use concepts such as gaming, Artificial Intelligence (AI), online rewarding, and other methods to stimulate a more productive outcome for students and staff. Staff should ponder how much existing 'digital' assessment is a translation on what would have previously been a physical submission.

Digital learning techniques and resources can allow a much more open and flexible approach to the formative learning context. There are so many online tools and apps now available to gradually build skills and knowledge over time, courses should consider how these can be used to provide effective micro-engagements for students that allow the building of confidence and support for student success.

Personal Development Portfolios (PDP) are often recorded through digital systems in many organisations – but the method of recording PDP achievements online is often transactional through the VLE rather than more actively engaged with student success. Given (even pre-COVID) that many workplace interactions are now digital – and the future trends surveys tell us will become more so – organisations should consider how the recording of PDP can become something more than a digital equivalent of a paper record.

Reflective question

How much of your institutions' 'digitally-based' assessment is just a direct translation of what would have previously been a physical submission – such as an online essay?

Students as Co-Creators through the implementation of digital technologies

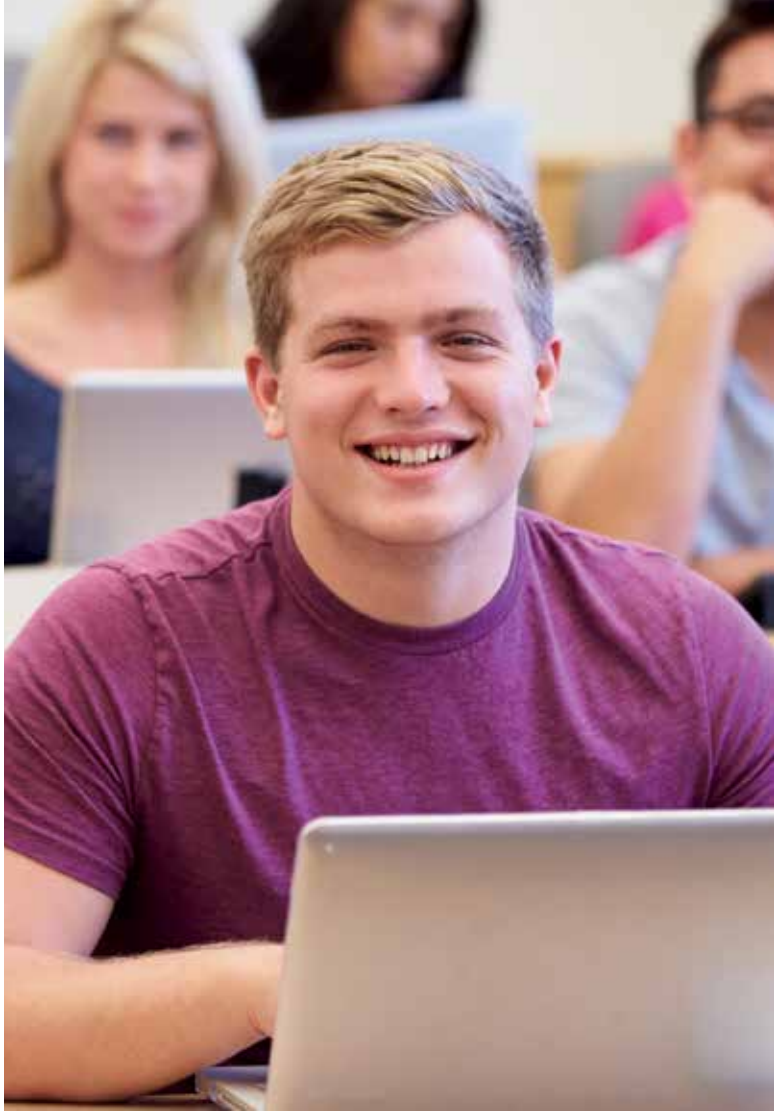
The digital learning environment is one of the best places to realise a co-creation landscape for learners and teachers. Microsoft Teams is the latest technology that allows co-creation of the learning and teaching environment, but it is not the first. Students can create events themselves using the technology in which tutors can participate – even potentially becoming the student. Further to this is the open technology possibilities which allow all students to become co-curators of the learning event. Organisations should consider how they can discover new ways to think about learning in this form.

Organisations should aim to provide a digital learning framework to offer further best practice that can work in their institutional context from the moment of course creation and design through to delivery and student success. The opportunities that new technologies offer for a cross-disciplinary approach to assessment through project-based activities are also more closely aligned to the workplace environment and should be explored to enable students to develop independent skills. It can also be the case that students are often more up to date with the possibilities within the digital technology sphere and many are early adopters of new technologies. Other learners, particularly those who are from disadvantaged backgrounds, have come into HE through widening access pathways, or have additional support needs, understand the limitations and challenges when accessing technology. These groups would bring this knowledge into course design and delivery as students and may well provide innovative solutions that other students and staff could benefit from.

(See also Course Design and Development and Student Engagement Themes).

Reflective question

To what extent are students, employers, and other stakeholders such as innovative tech companies involved in the design and delivery of your active learning technology development? What systems are in place to ensure this?



Staff qualifications, research, and professional development

Staff skills' audits, employment strategies, future workplace trends and training plans should be informed by the skills required to deliver effective digital learning alongside the academic and scholarly qualifications of staff appointed to new programme.

Organisations need to assess the skills and capabilities of support staff to assist in the effective delivery of active learning through technology. Support and training staff who manage the technology enhanced learning systems of the institution often understand the best methods for delivering effective learning technology and need to work collaboratively with the academic community to maximise the potential of the learning systems for each discipline and programme. An appreciation of the known importance of emotional intelligence in forming these collaborative partnerships should be part of the training which is provided to bring these groups together.

There should be forms of recognition both within individual institution's human resource strategies and the sector to identify areas of achievement and accreditation that can enhance the capability of staff delivering digital learning. It could also consider how future recognition through employment and

professional networks could include digital learning competency and innovation to be a specific area of development which can be given recognition. This approach should also identify the most competent 'champions' of digital learning technologies and training and development strategies should be designed to support peer-to-peer learning for colleagues who will trust these individuals more than external trainers.

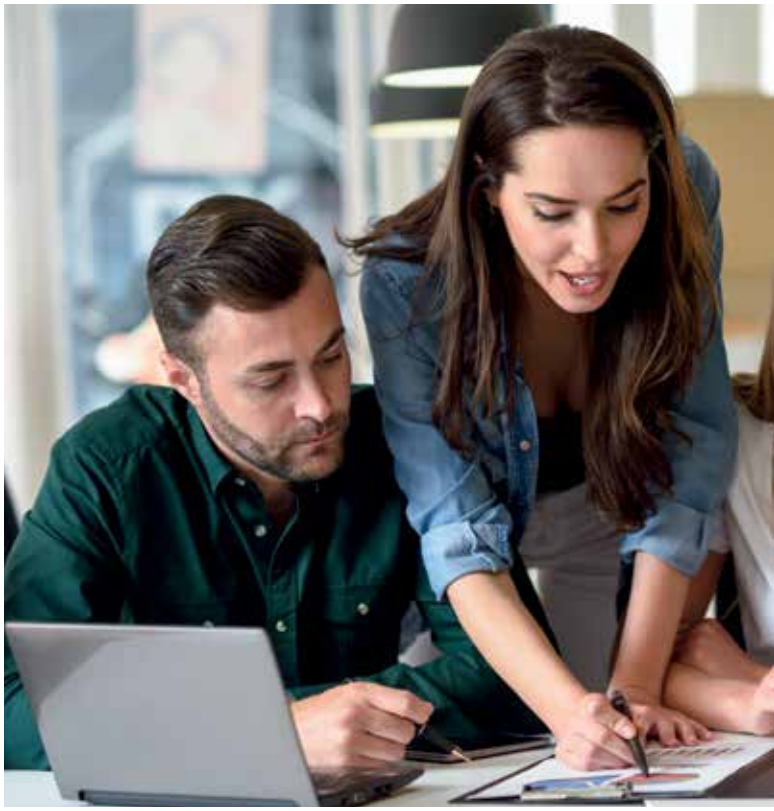
Reflective question

How do you ensure that staff have appropriate and current technical knowledge and understanding? Of the digital learning aspects of the subject discipline, as well as the necessary knowledge, skills, and experience to facilitate active learning through technology?

Learning environments

The use of digital technology to deliver an active learning and teaching experience requires new strategies for the physical and virtual facilities within which students now work – which can also involve such technologies as Virtual Reality (VR) and Augmented Reality (AR). Senior management teams need to consider future workplace trends and the impact of such recent occurrences as the climate change crisis, COVID-19 pandemic, and Black Lives Matter campaigns. The nature of the student and staff relationship to the learning space is changing dramatically. Social distancing and forms of distance learning are resulting in a restricted physical offering within Higher Education and a move to use technology to deliver more learning. Some unforeseen consequences of COVID-19 included the exacerbation of pre-existing inequalities for those students who do not have access to their own equipment or home-based learning spaces that can significantly impact on their capacity to engage with digital learning.

The kinds of virtual spaces that can be created for active learning approaches is rapidly changing as new technology emerges. In that respect institutions need to plan the delivery of their digital technology to support active learning in a manner which both supports the highest quality of learning experience and which



prepares students and staff for the future working landscape as far as it is possible to predict what this will be. What the COVID-19 pandemic has shown is that when forced to close campuses even subject areas and staff that had long argued that certain forms of teaching, learning and assessment could not be delivered in anything other than a direct physical environment have quickly adapted to the circumstances and created new forms of digital assessment. Organisations now need to harness these changes from a crisis to create a positive and sustainable delivery which is truly blended and flexible in the application of technology to deliver active learning, whilst also delivering the same quality of student experience, measuring outcomes and achieving success.

Reflective question

Is it still true to say that certain forms of learning, teaching and assessment can never be translated into a technological context? Can technology be used to augment or support this learning in some form?

11. MONITORING, EVALUATION, AND REPORTING

The use of technology to provide effective monitoring, evaluation and reporting is becoming increasingly common at all levels as organisations seek to manage, record, support and report on the levels of student engagement on their courses, and the feedback which students give on the quality of their course. Some technology allows more immediate digital feedback than has been possible previously to support effective digital learning delivery. There are opportunities for peer review of work being undertaken by students and staff in which technology could be used to make this process less obtrusive and more flexible provided matters of privacy and GDPR are addressed. Direct feedback on digital learning could also facilitate micro development opportunities in which any needs assessment could trigger immediate support and links to best practice resources to support staff in their efforts to deliver good quality digital learning.

Appendix 1: Digital Learning Best Practice Examples

Association for Learning Technology (ALT) Community Resources
https://www.alt.ac.uk/communityResources

Microsoft Teams Education Support:
https://www.microsoft.com/en-us/education/remote-learning

https://www.youtube.com/watch?v=HGYM8DG9WPQ&feature=youtu.be

https://customers.microsoft.com/en-us/story/759309-unsw-higher-education-azure-teams-powerbi-australia-en

https://educationblog.microsoft.com/en-us/2020/06/reimagining-education-from-remote-to-hybrid-learning/

https://www.microsoft.com/en-gb/together/enable-teams-anywhere?cmtgt=p1a3&OCID=AID2001468_OLA_24178058_273866436_132563120

Kahoot for Higher Education:
https://kahoot.com/schools/higher-ed/

University of Central Lancashire: Microsoft Teams Engagement:
https://teltblog.uclan.ac.uk/2018/08/22/microsoft-teams-communicate-collaborate-create/

Arizona State University:
https://www.theremotesummit.org/

Appendix 2: Digital learning sources list (summary)

OfS:
Coronavirus Resources and Support
https://www.officeforstudents.org.uk/advice-and-guidance/coronavirus/

Digital Learning and Employability
https://www.officeforstudents.org.uk/news-blog-and-events/blog/future-proofing-uk-business-for-a-digital-future/

https://www.officeforstudents.org.uk/news-blog-and-events/press-and-media/13-million-in-bid-to-boost-digital-skills/

QAA:
Advice and Guidance Documents:
https://www.qaa.ac.uk/news-events/support-and-guidance-covid-19/future-plans-for-qaa-guidance

https://www.qaa.ac.uk/quality-code/advice-and-guidance

Focus on Technology Enhanced Learning:
https://www.qaa.ac.uk/scotland/focus-on/technology-enhanced-learning

Coronavirus Resources and Support:
https://www.qaa.ac.uk/news-events/support-and-guidance-covid-19

JISC:
General Resources:
https://www.jisc.ac.uk/reports/digital-experience-insights-survey-2019-students-uk

https://www.jisc.ac.uk/guides?f[]=field_long_form_type:quick_guide&f%5B0%5D=field_long_form_type%3Aquick_guide

https://www.advance-he.ac.uk/guidance/teaching-and-learning/technology-enhanced-learning

Coronavirus Resources:
https://subscriptionsmanager.jisc.ac.uk/about/resources-for-coronavirus-crisis#

Advance HE:
Digital Literacies
https://www.advance-he.ac.uk/guidance/teaching-and-learning/technology-enhanced-learning

https://www.advance-he.ac.uk/knowledge-hub/digital-literacies

https://www.advance-he.ac.uk/scotland/thematic-series/technology-enhanced-learning

Higher Education Policy Institute (HEPI):
Student Experience Survey:
https://www.hepi.ac.uk/2020/06/11/the-student-academic-experience-survey-2020/

General Resources:
https://www.hepi.ac.uk/category/publications/

Other Resources:
British Council:
Ensuring quality teaching online:
https://www.britishcouncil.org/going-global/live-events/ensuring-quality-teaching-online

Sortyourfuture.com – a unified approach to online university exams and COVID-19:
https://www.sortyourfuture.com/article/university-exams-and-covid-19-why-universities-need-a-unified-approach

THES:
https://www.timeshighereducation.com/hub/pa-consulting/p/six-types-modern-student-reflect-how-universities-can-build-future

Michael M. Crow, THES Article,
https://www.timeshighereducation.com/news/michael-crow-crisis-should-herald-cooperation-and-differentiation

ODGERS: HE and COVID-19
https://www.odgersinterim.com/uk/who-we-are/intelligence/higher-education-and-the-covid-19-crisis-4912/

Chronicle of Higher Education (US)
Coping with COVID-19
https://www.chronicle.com/article/in-their-own-words-here-s/248989?key=wYmokCnDzR4h9eFNudrs4pTiEZ600aCSnzzv6JPbstvoexSQqbRY-9z2f5W89_jz2MEcwd2huSUx5VVZfeWJ6eGwyaTZZZHh2cVZSYVZzTUh-wOFpOc2l0Wndubw

Better student engagement during COVID-19
https://zoom.us/webinar/register/rec/WN_nwQDk-cqQluFQzEofEW_5A?meetingId=4Zx8Ko_f8HN-Jb6_WuW3Gc5w6A4P7aaa80HUc_PJcnkwWm6rej2z_Rwlf-Hz0XlKY9&playId=6ZEudb2przw3E4KX5ASDCvF-W9Xsf_-sgSB-MrvBYz03nV3gLYQWhM-MQNud_FbpicspP9RPjpzXMcUS6&action=play&_x_zm_rtaid=9x39xBH5TZ-cbj18WSqieg.1593549192411.ed9d841c812db045aadcec6cb5f0cd78&_x_zm_rhtaid=19

PWC: HE and COVID-19
https://www.pwc.com/sg/en/publications/a-resilient-tomorrow-covid-19-response-and-transformation/higher-education.html?_lrsc=d610395b-fdd8-4ad6-8b51-19500320e913&trk=linleap&utm_medium=social&utm_source=linkedin&utm_campaign=linkedin+elevate&campaignid=7011M000001QtCy

Appendix 3: Mapping active digital learning against QAA Advice

https://www.rcl.ac.uk/digital-learning-document-appendix3/

Authors:

Dr Selva Pankaj
CEO, Regent Group
Principal, Regent College London
E: selva.pankaj@regentgroup.org.uk

Dr Richard Knapp
Director of Education, Regent College London
Head, Regent Research Centre
E: richard.knapp@rcl.ac.uk

Contributors:

Professor David Hopkins, RISE, University of Bolton

Lucy Griffiths, CEO: Sortyourfuture.com and RSA Trustee

Professor Andy Penaluna, University of Wales, TSD

Dr Catriona Ryan, CEO, Scriptor Cube Ltd

Lyndon Shirley, Executive Director of Technology Enhanced Learning, University of Wales Trinity St David

Donna Smith, Deputy Associate Dean, Teaching and Students, Open University

John Sumpter, JISC

Andy Youell, Independent HE Data consultant

www.rcl.ac.uk
info@rcl.ac.uk
020 3870 6666

Regent Hill House
153 Great Titchfield Street
Fitzrovia, London W1W 5BD