MAKING DIGITAL DECISIONS

A GUIDE FOR HARNESSING THE POTENTIAL OF ONLINE LEARNING AND DIGITAL TECHNOLOGIES

DEVELOPED FOR HIGHER EDUCATION INSTITUTIONS IN SUB-SAHARAN AFRICA
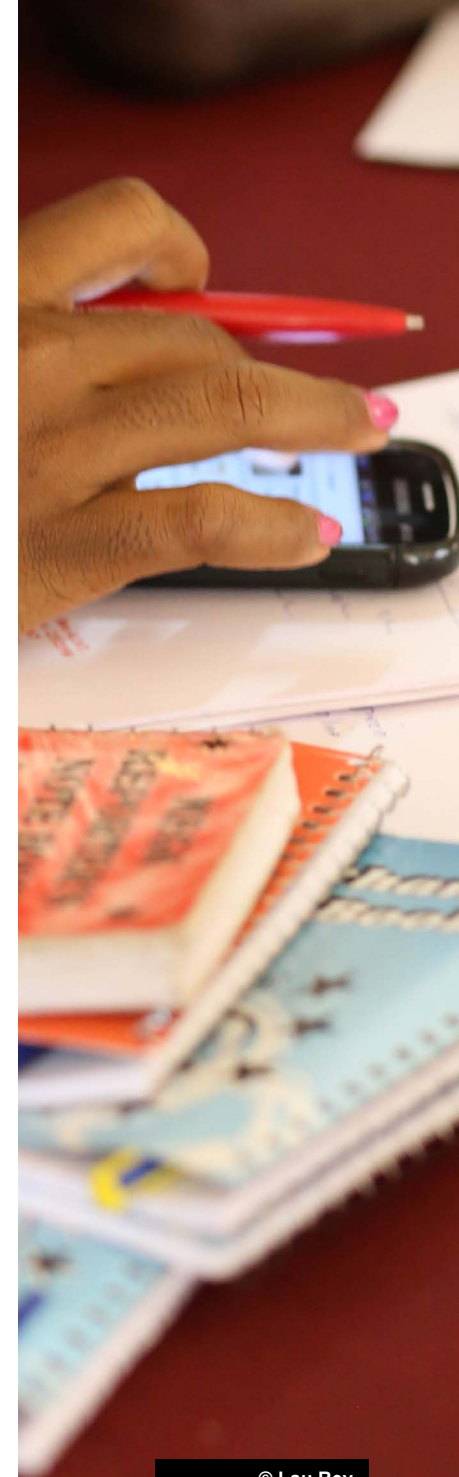
UPSKILLING STAFF AND STUDENTS

CHANGING THE PEDAGOGY

OVERCOMING BARRIERS

WORKING TOGETHER

EFFECTIVE STRATEGIES FOR TEACHING

ACHIEVING QUALITY

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Introduction

> " I feel that this has come at the right time, and it is here to stay, because it helps students become good with technology, and also it helps them try to learn on their own because their lecturer isn't there to help physically, but they help you online. "
>
> **Facilitator**

> " What we're doing locally is helping people nationwide and some of our students are abroad as well, so it places the imperative on me, to do well, deliver content well and be up to date with where the knowledge is. "
>
> **Faculty member**

The Digital Decisions project analysed how staff in higher education institutions in Ghana, Kenya, Nigeria and South Africa made decisions to make greater use of online learning. We explored challenges, how key decisions were made, and the impacts of these on students and staff. We also gathered views on good practices in digital decision making. The topics and the quotes found here are drawn from this.

Creating any form of quality online teaching requires time and strategic thought. Digital technologies can increase flexibility but need to be combined with appropriate pedagogy and support for staff and students. This guide can help you make decisions and apply good practices to the development of online and digital education.

The project was funded by the **British Council** and led by **The Open University** and the **African Council for Distance Education**. This guide was created with the help of educators from Kenyatta University Kenya, Laweh College Ghana, The National Open University of Nigeria, and UNISA, South Africa.

Visit the **Digital Decisions** site for an online introduction and more resources.

Asynchronous learning: activities that students engage with over a longer period, at times that suit them, for example, reading materials and discussion in an online forum.

Blended learning or hybrid learning: a combination of online learning and face-to-face learning. Hybrid learning can refer to offering the same course with options of studying online or face to face.

Learning Management System (LMS) or Virtual Learning Environment (VLE): online platforms designed to host teaching materials, guide students, and support communication and learning activities.

Online learning: teaching occurs and course materials are delivered through the internet.

Open Educational Resources (OER): teaching and learning materials that are shared and licensed for reuse and adaptation by anyone at no cost.

Remote learning or distance learning: involves substantial distances between the student and teaching staff, without the need to meet in the s ame location.

Synchronous learning: activities that require a student to join at a particular time and engage in real-time, such as an online tutorial delivered at a particular date and time through video conferencing.

1. Upskilling staff and students

> **"**
> We enhanced the capacity of our lecturers to teach online by improving their training in e-facilitation. We also trained our students online on how to engage with digital learning, especially for the big number of face-to-face students who were used to the traditional lectures. **"**
>
> **Dean of School**

> **"**
> I have participated in a number of online CPD training workshops. There was a lot of upskilling of my teaching, and learning VLE skills and so forth. I'm now participating in the advanced online teaching and learning certificate. I gained people management skills; I gained emotional intelligence skills; I gained leadership skills; I gained technology and online skills. **"**
>
> **Faculty member**

Providing appropriate training and guidance for staff and for students is essential for any successful transition to greater use of online and digital learning.

Training staff

When computers become the primary means through which teaching and student support occurs, staff need to be proficient and feel comfortable in this world. The points below are important to consider:

- Training that is delivered online can get staff comfortable with online teaching and help them to see what their own students will experience.

- Encouraging staff to develop their skills and knowledge can bring benefits to the whole institution in adapting to change and making better use of technology.

- Online teaching can be observed or reviewed as a means to plan improvements and direct further personal development.

- Further training is often needed when moving platforms and introducing new tools.

Key decisions

● Plan for staff to be ready to teach with technology from the start of their course and continue to enhance their skills and understanding

● Introduce key tools and the development of digital literacies as part of the design of courses.

ⓘ For more on this topic go to the:
Upskilling staff and students area

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1. Upskilling staff and students

Training students

Students need support to study online and engage with digital technologies. At the same time, the digital literacies they gain will improve their personal development and career opportunities. Considerations for this include:

- Planning in time and support for all the technologies that students will be expected to use.

- Exploring frameworks for digital literacy and considering how the development of these can be built into teaching.

Example - Peer and alumni support:

'I invited former students to come to discuss online with the current students. I think the students found it very valuable, to realise that people almost of their age were capable of using the various tools and demonstrated their understanding of the applications. This helped the students then to connect with the course and motivated them to use the tools that we wanted to expose them to.'

(Director of Capacity Development and Associate Professor)

Key decisions

● Plan for staff to be ready to teach with technology from the start of their course and continue to enhance their skills and understanding

● Introduce key tools and the development of digital literacies as part of the design of courses.

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Upskilling staff and students area

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2. ⚙ Changing the pedagogy

," to prepare for online facilitation I discovered that perhaps the course models were not interactive enough. There was a need to make them more user friendly so that it is easy for the students to be guided – and they really, really needed guiding. „

Faculty member

," teaching and learning now is not teacher dominated, and the students have ownership, which is one of the advantages of blended learning. „

Faculty member

● Agree and adopt a consistent approach to the design of courses, using frameworks such as those found in learning design.

● Move away from final exams to continuous assessment that provides students with opportunities to show and gain feedback on their understanding as it develops.

● Decide on how course materials will be created and how existing materials such as OERs can be reviewed and used.

Digital technologies and online learning create the potential to teach in different ways. Substantial effort is needed to make these changes, but there are plenty of resources to help on the journey.

Learning design

Decisions in the creation of courses can be guided by principles and resources for learning design, and it has been found that different learning designs have a significant impact on student performance and satisfaction (Rienties and Toetenel, 2016). Important activities in learning design include:

● identifying the goals of the course and defining learning outcomes

● considering who the students are, their motivations, experiences and contexts

● representing the workload and balance of activity types used in the course

● adopting common language and tools so that course designs can be understood by all staff, and compared and evaluated.

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2. ⚙ Changing the pedagogy

Adapting to online teaching

It could be tempting to transfer the elements of an existing course into a digital form as simply as possible, but the question of quality emerges when we think about the strengths of an online approach and how to make learning more flexible and engaging. Areas for decision making include:

- finding, sharing and curating quality OERs rather than creating all course materials yourselves.

- planning for a balance of interaction types (student–student; student–teacher; student–content) to keep students engaged.

- exploring ways to build high-impact practices, such as learning communities and structured collaborative assignments, into online learning.

- exploring the features available that could support engagement and give early forms of feedback on learning during a course, such as quizzes and peer support.

Assessment

Online and blended learning lends itself to continuous assessment throughout a course. Although forms of examination can be carried out online, other common forms of online assessment are written assignments, quizzes and engagement with discussion in forums (Kearns, 2012). Activities that offer chances to test knowledge during the course encourage students to gain experience and confidence with the assessment approach.

Example – changing the frequency of (formative) assessment:

'One of the good practices for online learning that I came across was that you have to always have a constant assignment for students. You put the students always on their toes. If you give assignments, almost weekly assignments, they can keep abreast of what you are teaching them.'

(Faculty Dean)

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Key decisions

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   Changing the pedagogy area

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3. ⊦″″⊦ Overcoming barriers

> " About three-quarters of the class have been able to use their smartphones to study, but there is a disadvantage for those who are coming from remote regions. "
>
> **Exam coordinator**

> " When I started my classes, two or three times I switch on the video so that they could see that I'm serious and I'm on duty and I'm there for them. Then to save on bandwidth I switch it off but continued engaging. "
>
> **Faculty member**

Greater use of digital technologies and online learning can remove some barriers to learning, but can create other barriers. It is important to be aware of the different contexts of students and to identify ways of reducing or removing any barriers they could face.

Connectivity and devices

Some approaches to online learning do require constant access to the internet and large quantities of data. However there is a range of approaches and ways to make online learning take into account any limitations. Students with sporadic or limited access can still engage and can be supported by ploys such as:

- Providing downloadable materials and recordings that can be studied offline.
- Reducing reliance on synchronous video, large images and media files.
- Providing alternative text versions of media.

There should also be clear guidance on the devices that students can use for their studies. Study should be possible with a range of devices and consideration of this should be given when deciding on tools and activities used in teaching.

Where students do not have access to the required devices and internet connectivity, what support is available to them? Can government initiatives support them? Could their families and communities also help them to overcome these barriers?

Key decisions

- Provide multiple ways to engage with activities and materials and make these accessible.

- Identify ways to improve access to connectivity and devices.

- Identify ways to improve the flexibility of assessment and early identification of challenges.

ⓘ For more on this topic go to the:
Overcoming barriers area

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3. ⌐⌐⌐ Overcoming barriers

Making learning accessible

Steps should be taken to improve the accessibility of digital and online content. It is also important to remember the value of providing material in advance and in multiple formats, and to support different forms of engagement in learning activities.

A popular framework used to improve access and inclusion is **Universal Design for Learning**. A good starting point for creating accessible web pages is the **Web Accessibility Initiative Easy Checks**.

> **Example – making online content available to students in advance of a session or activity:**
>
> 'the student will visit their course page to see if there are any upcoming activities. That gives the student prior knowledge of what is to take place within the week. And a student can visit the virtual library and access documents or books related to the upcoming topics.'
>
> *(Faculty member)*

Inclusive Assessment

Barriers to fair methods of assessment can be addressed if there is suitable flexibility in the assessment strategy, or if challenges are identified and responded to in a timely fashion. Using ongoing and continuous assessment offers opportunities to pick up issues early. Be proactive in supporting students who have difficulties meeting the assessment timeframe or format.

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ℹ For more on this topic go to the:
Overcoming barriers area

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4. 👥 Working together

> "
>
> There was division of labour, of sharing of responsibilities. Every department now called its staff and said, 'Okay, this is what we need to do.' If it is something that needs many people to do, we share the responsibility among the staff, and we do that through sending circulars, making phone calls, and other means of communication to the staff in the faculty. "
>
> **Director of Academic Planning**

> "
>
> Operating online we're able to share tutors and other staff. If I don't have it in one side of the country, then we can just meet online and the students are able to be supported. And that also increased collaborations a lot because we realise that we can no longer work in isolation.
>
> **Faculty member**
>
> "

● How staff will be able to collaborate in the creation of courses and make best use of their combined expertise.

● How expertise in technology and learning design can be built into the institution.

● How staff will be able to support students and complete actions effectively at a distance.

ⓘ For more on this topic go to the:
Working together area

Moving online leads to different forms of collaboration across an institution. Subject specialists should work with experts in technology to create effective learning experiences. Staff managing the administrative processes and support of students will need to consider their ways of working too.

Deciding on appropriate technologies for teaching

Online and digital teaching requires collaboration. Most teaching staff are subject specialists rather than technology experts and it is necessary to combine their knowledge with understanding of technologies and pedagogies that work online (Xu and Morris, 2007).

● Teachers should be supported to make decisions about appropriate tools and approaches.

● Experts in educational technology and online learning should be available to work with academics to explore how to support the learning they want to achieve.

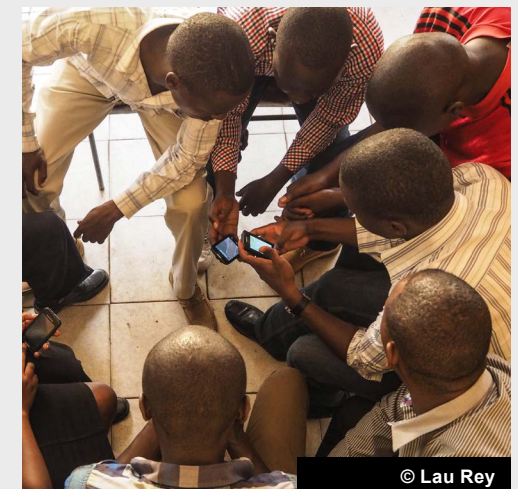● Decisions about technologies require collective decision making that crosses the institution.

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4. ⚲ **Working together**

> **Example – decisions about technology should be made collectively:**
>
> 'The directorate will now forward all the requirements for online learning and the management will take a decision, and then the department will also forward their requirements through the Dean in the Faculty through the Directorate of the LMS. These are how decisions are taken on technology.'
>
> (Director of Academic Planning)

Systems and processes

Technology and distance changes not only learning, but how institutions need to manage their administrative and support processes.

● Staff in all roles need to be equipped with technology to work wherever they can, and may also need support to cover the costs of internet access and data required to perform their work.

● Where students and staff are at a distance, alternatives to having to be at a specific location such as a campus will be needed.

Communicating and sharing

Working online supports sharing of resources and materials, and also sharing of workload if work is not dictated by location. Decisions may also be needed to create new means of communication between staff, that do not rely on them being in the same location, and to make sure that all staff are involved and have a voice regardless of their location. Use of messaging systems and internal communication platforms as well as emails can improve this ability to work together and form staff communities.

> **Example – sharing strategies to address issues:**
>
> 'I check with colleagues what they do in other places. I've called people who are running offices like mine to ask them how they are dealing with the issues. When we decided to have the students do assignments when they can't attend to quizzes, it's because others have done it somewhere else.'
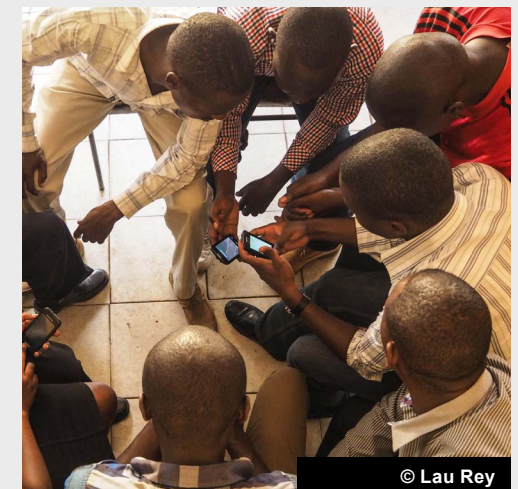>
> *(Chair of Department)*

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5. ◎ Effective strategies for teaching

Now we highlight the ways in which teaching modes can be combined, with examples, and consider some challenging areas of online learning, such as teaching practical subjects.

> **"**
> There have been other cases where the students miss a class and then they are able to listen to the recorded classes. Even after COVID I think it will be very important for us to be recording our classes. **"**
>
> **Faculty chair**

> **"**
> With time, people are beginning to embrace this kind of teaching and in fact a number of people who resisted it initially prefer to use the blended or virtual mode of teaching now. **"**
>
> **Department chair**

Communicating with students

Without proactive communication and clear guidance on timetables and expectations, students studying through technology may feel isolated and not know where to start or what to do. Consider how best to:

- provide a schedule that explains the timing and work involved in course activities.

- give students reminders and guidance about any synchronous teaching sessions which they will need to join through particular tools and at particular times.

- communicate with students through the tools they already use and are accessible to them.

- establish and agree on the forms of communication that will be used, so that students know where to expect information and teachers do not assume students will have received messages.

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Key decisions

- Develop a comprehensive approach to communicating timetables and expectations to students in advance, using communication channels that will reach them.

- Ensure that asynchronous teaching is used to support access and flexibility for all students, and that the advantages of synchronous activities are considered and used appropriately.

- Decide if and how in-person activities combine with online teaching and learning.

ⓘ For more on this topic go to the:
Effective strategies for teaching area

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5. ◎ Effective strategies for teaching

Synchronous and asynchronous approaches

Teaching may take place at the same time (synchronous mode) or with the students engaging with it at different times (asynchronous mode), or may rely on one of these approaches. Both can support similar achievements in learning (Johnson, 2008), but there are advantages and challenges to each as well.

Asynchronous teaching offers greater flexibility for learners and could allow them to overcome some barriers such as intermittent connectivity. It can also allow students to set their own pace through the materials or activities rather than having to keep up with their peers or a lecturer.

Synchronous teaching can better support a sense of 'social presence' (Moallem, 2015) which can increase student satisfaction (Richardson et al., 2017) and counter the potential to feel isolated.

Teaching practical subjects

It is possible to find ways to support students to learn almost any subject remotely. Good results can also be achieved by 'blending' online materials and activities with in-person teaching (Lovett et al., 2008, DeNuei and Dodge, 2006). If a blended approach is taken, decisions then need to be made about how best to combine these approaches in the structure of a course.

Development of practical skills and work-based activities in-person can be effectively combined with online learning. In 'flipped learning', course materials are delivered online in advance and the classroom becomes the space for students and teachers to discuss the material, apply their learning and engage with each other in a more active and focused way. This approach has been particularly popular and effective in subjects that combine theory and practice, such as engineering (Karabulut-Ilgu et al., 2018) and music.

Example – Combining theory and practice to teach music:

'You want the student to develop certain skills. You must separate the elements you want to teach. During the online learning we did more of the theory, and then when they came we decided to play the music that they were not able to hear online.'

(Exam coordinator)

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Key decisions

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● Ensure that asynchronous teaching is used to support access and flexibility for all students, and that the advantages of synchronous activities are considered and used appropriately.

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Effective strategies for teaching area

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6. ❋ Achieving quality

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>
> I made a decision to join into some of these classes just to monitor how the teaching was going on and this provided some feedback. The feedback was shared with them so that they could use it for future planning and for improvement. ❞
>
> **Chair of Department**

> ❝
>
> using social media students were able to post their questions which could be answered by the students or the tutor. However, these platforms were not backed up by the policies of the university. With COVID coming, the university was able to open up Teams so students could be supported. ❞
>
> **Head Facilitator**

Online and blended learning can be as effective, or more effective, than face-to-face tuition (Means et al., 2010). However there are differences, and particular areas for attention in achieving high quality teaching.

Quality in e-assessment

While it is important to identify approaches that can ensure integrity in e-assessment, it is also important to pay attention to the potential to exclude students. For example, can the assessment be completed by a student who has to share their study space with others? Does it require specific equipment or connectivity that is not achievable by all students? Is there scope for adjustments or alternatives to ensure all students are assessed fairly?

Students are likely to be unfamiliar with these assessment approaches and it is essential that clear rules and expectations are communicated. This will give students confidence that they are completing their assessments in an acceptable way.

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Key decisions

● identify processes to evaluate and improve teaching quality, such as observing, sharing and reviewing materials and activities.

● devise approaches to e-assessment that combine integrity and fairness.

● if increasing student numbers is a goal, develop approaches to achieve quality at scale.

ⓘ For more on this topic go to the:
Achieving quality area

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6. ✳ Achieving quality

> **Example – reconsider assessment settings and methods:**
>
> 'we need to move away from exams and assessment that force people to be in one room at the same time. That cannot work in an online space, especially in developing contexts. It is not possible for a student who is struggling with connectivity and data to be able to sit right through the exam. So, we need to come up with different assessment practices that will assist students to succeed.'
>
> *(Professor)*

Policies and processes

Policies should be used to ensure quality and appropriate use of technologies. Consistency should be encouraged across courses where this benefits students and staff. However, policies can also present barriers to innovation and responding to new situations. There needs to be scope for staff to take actions that support their students, and for policies to be updated to reflect new uses of technology.

Teaching at scale

One element of online teaching that can be attractive is that physical restrictions are removed and larger numbers of students can be taught than is possible in face-to-face classes. Reaching a larger number of students is possible, but this will create tensions with quality if appropriate resourcing and methods aren't in place. Quality in online and distance learning requires substantial human support and this needs to be able to increase to effectively support larger numbers of students.

● identify processes to evaluate and improve teaching quality, such as observing, sharing and reviewing materials and activities.

● devise approaches to e-assessment that combine integrity and fairness.

● if increasing student numbers is a goal, develop approaches to achieve quality at scale.

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Acknowledgements

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