Brookes Briefing

Digital Inclusivity

The UK Government defines digital inclusion as '*making sure that people have the capability to use the internet to do things that benefit them day to day*' (Cabinet Office, 2014). There are three aspects to this digital capability: digital skills, connectivity and accessibility.

A digitally inclusive learning environment is focused on the needs of learners, it is designed to be accessible, to consider the barriers that are created by digital poverty and it builds in flexible and alternative ways to engage with materials, other learners and teachers. Crucially it also presents opportunities to develop digital capabilities.

At Brookes digitally-enabled teaching and learning is a pedagogic / andragogic approach which is designed to be inclusive, active, collaborative, and which makes appropriate use of digital teaching tools. We follow the four key principles of coherence, consistency, community and choice to encourage student engagement, belonging and independent learning, and facilitate the growth of student and staff digital know how.

The use of the internet and the digital tools associated with it is, and will likely remain, ubiquitous. 'Digital and information literacy' is a key element of the Brookes Graduate Attributes. Opportunities to develop those skills should be part of students' learning experience as we know that Brookes graduates will need digital capabilities in order to function critically and effectively in the digitally-enabled work environment. This includes the ability to adapt and maintain relevant digital skills over time (Coldwell-Neilson 2020) as well as the crucial well-being aspect: The ability to manage oneself in the digital world. To do this a growth mindset is required, the ability to engage with a socio-constructivist model of learning where knowledge is created in collaboration with others, in response to lived experience and active engagement. Graduates will continue to develop their digital skills and associated competencies as life-long learners, just as Brookes staff will develop their own skills and expertise through engagement with digital tools.

The principles outlined here apply to all digital environments and tools that are part of daily life at Brookes.

Principles and Practices for digital inclusivity

Prepare and plan: Design for inclusivity and adapt for accessibility

It is important to understand the difference in terminology and approach: we should always design for inclusivity, but sometimes we are obliged to adapt for accessibility.
- Designing for inclusivity means thinking about your students' needs and circumstances; the space and time available to you and them; considering why you are asking students to use digital tools or materials; and then making sure that those tools and materials are accessible to everyone.
- Adapting for accessibility means checking tools and materials already in use. Take a look at the resources at the end of this document.

Digital skills: not everyone knows how to use the digital tools we use for personal productivity or teaching and learning. Do not assume all students (or colleagues) are digitally literate and are able to access and make effective use of the digital tools in use. Embed opportunities to build up skills, introduce tools in a gradual way, use buddies or support groups, and make sure you have included or linked to a set of 'how to' instructions. Take the opportunity to try out new tools with colleagues before you use them with students, and take advantage of [development opportunities](#) for yourself.

Connectivity: According to the Office for Students the absence of one or more of six elements (an appropriate device; good connectivity; reliable back-up when things go wrong; relevant software; a trained teacher; and space in which to work) constitutes digital poverty (Barber, 2020). When planning to use digitally-enabled teaching and learning, consider how you can provide a blend of on-campus and online opportunities to engage all students, and signpost or provide access to on-campus facilities for those who may not have robust internet access.

Accessibility: Plan for failure, that is, make sure there are alternative ways of accessing materials or activities. Create a back-up plan just in case the technology does not work / is not available for some reason. Make use of templates and consistent structures so that students do not have to re-learn where to find things within your sites and documents and slides are clear and readable by screen readers. Take a look at the resources at the end of this document.

Learn about and apply effective design principles

The underlying design principles that guide digital inclusivity are human-centred and grounded in philosophy. This is what informs the IDEAS curriculum design model in use at Brookes. It requires us

- to know who our students are and define their needs (what do they need to know or have experience of in order to meet the learning outcomes for the module or programme?),
- to design and curate activities for them to engage in to allow them to meet those needs (this may include several stages of experimentation and refinement as activities and materials are developed), and finally
- to put them into practice, but evaluate their effectiveness in helping students meet the learning outcomes (might there need to be more formative opportunities or scaffolding for students?).

Learning design is successful when a student is guided and supported to achieve (and potentially surpass) the learning outcomes.

A second useful framework is that of universal design (UD). These principles were created in response to the personal experience of the architect Ronald Mace. He recognised that design could widen, or level, the divide between different demographic groups. UD is also 'known as design for accessibility, design for all, transgenerational design, and inclusive design'. Key principles are accessibility, useability and inclusivity**.** The 7 principles of universal design were created in order to make products and environments accessible to as broad a range of users as possible. They are: Equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, size and space for approach and use. In the early part of the 21st century UD principles were used to create the Universal Design for Learning (UDL) framework which recognised the need to design to create learning opportunities for every student in whichever mode (face-to-face, online or a blend) is being used.

A third way of thinking about inclusivity and a potential way to stretch students is to include a variety of learning types through the activities you design; this will provide experience in different ways of learning and facilitate the development of additional skills. Laurillard (2008) identified six learning types: Acquisition, Collaboration, Discussion, Investigation, Practice, Production. You can hear her explaining the types here.

Take time to develop your own digital skills and capabilities

It is expected that Brookes staff develop their own proficiency in the tools that are used for teaching and the support of learning, as well as for their own productivity and organisation, this is referred to as Digital know-how and is about enhancing your own confidence and wellbeing, as well as ensuring a smooth student teaching experience. The benefits are that your proficiency with the tools will increase, your stress levels will likely decrease, and you will be able to share your learning journey with your students and resolve some of the issues that

students might have from your own experience. You can find more support and guidance at the end of this briefing and via the [Brookes Digital Services pages](#) or by accessing [third party provision](#) offered via Brookes..

1. **Select your tools**: Stick to institutionally supported tools if unsure and make sure you can explain why you are using a particular tool, especially if it's a new or unusual tool. Start small and build use of digital tools to build familiarity with the capabilities of [the Moodle platform](#) and tools like [Padlet](#) and [Jamboard](#). More digital tools such as the referencing software [Endnote](#) can be found via the Brookes software hub [AppsAnywhere](#).

   It is possible to broaden the options and functionality available by using free versions of apps like [Mentimeter](#) (polling, including the creation of word clouds), and [Canva](#) (a graphic design tool) or collaborative tools like [Notion](#) and [Slack](#). Digital tools that support the development of ideas and thinking are also useful, take a look at [the University of Waterloo's guide to concept mapping tools](#).

2. **"Test" the tools** to ensure they can actually do what you require them to do in your plan for teaching and the support of learning. Consider exactly how you want the students to use the tool and try to replicate that while considering some main variables:
   - Check student view in Moodle, try accessing materials from different devices like a phone and laptop, a pc and a mac, on and offline, writing and dictating, with and without a mouse.
   - Check that the digital tools work with your lecture slides, with Moodle, Google and Microsoft software, and TurnItIn.
   - Take advantage of training and development opportunities (link to Brookes offers), involve colleagues in 'tryout' / practice sessions (this can be great fun), and
   - Invite conversations with students about your choice of tools; ask them what was challenging and why, what was straightforward?

3. Consider how you can **learn alongside your students**. Introduce digital tools progressively for short activities, or model their use in your teaching. Do not assume that students are digitally literate, they too may need to learn how to use digital tools effectively for learning.
   - Digital tools have powerful affordances for breaking down barriers and supporting community building. Consider how you can build a shared online space or connect your students to other online disciplinary communities.
   - Think about temporality and space / place. Digital tools could be used to build community outside contact time, to prepare or follow up on in-class activities. Activities do not always have to happen in real time or immediately, time for thinking might benefit some and teach additional time management lessons to others.

- Encourage students to stay connected to each other outside class time, but encourage the use of digitally inclusive spaces that can be accessed by everyone: by facilitating a negotiation of which space is used.
- Explain why you are asking students to use digital tools to undertake an activity and ask them for feedback on use so that you can understand how effective and appropriate this was.

References, resources and further reading

Barber, M. (2020) *Digital teaching and learning: the opportunity'*. Office for Students blog, 30 October. Available at: https://www.officeforstudents.org.uk/news-blog-and-events/blog/digital-teaching-and-learning-the-opportunity/ (Accessed: 11 November 2022)

Cabinet Office (2014) *Government digital Inclusion strategy.* Policy Paper Updated 4 December 2014. Available at https://www.gov.uk/government/publications/government-digital-inclusion-strategy/government-digital-inclusion-strategy (Accessed: 11 November 2022)

JISC (No Date) *Individual digital capabilities.* Available at: https://digitalcapability.jisc.ac.uk/what-is-digital-capability/individual-digital-capabilities/ (Accessed 11 November 2022)

Mitrasinovic, M. (2008) 'Universal Design' in: Erlhoff, M. & Marshall, T. (eds.) *Design Dictionary: Perspectives on Design Terminology*. Basel: Birkhäuser Basel.

CAST (No Date) *About Universal Design for Learning.* Available at: https://www.cast.org/impact/universal-design-for-learning-udl (Accessed 11 November 2022)

Centre for Excellence in Universal Design, 2020, *The 7 principles.* Available at: https://universaldesign.ie/what-is-universal-design/the-7-principles/ (Accessed 11 November 2022)

Brookes resources:

Accessibility checklist tutorial
Design of student materials
How to create an accessible document
Inclusive teaching and learning
Presentation templates

Cite this article: Morón-García,S. & Rickard, L. (2022). Digital Inclusivity. Brookes Briefing: Oxford Brookes