

Update from the Digital Education Strategy Working Group

(a) Summary

This paper presents a review of progress since the previous digital education strategy and a draft set of priorities for the revised strategy. This draws on the findings of the initial phase which undertook a review of student feedback collected through the pandemic, staff consultation events, a review of existing online course provision and a benchmarking exercise with other universities. The priorities for the coming 4-5 years coalesce around three themes for digital education: inclusivity, innovation and openness/global reach. This update was discussed at Education Committee Week 8 MT21 and was endorsed for consultation with divisions, colleges and the wider university.

(b) Action required

Divisions, departments, faculties and colleges are asked to provide feedback on the attached draft (Annex 1) to contact@ctl.ox.ac.uk by Tuesday of 8th week Hilary term 2022 (Tuesday 8 March 2022).

In particular, we invite feedback on the following:

1. It is proposed that the priorities for digital education in the next four to five years focus on three themes: inclusivity, innovation and global reach. Do these themes reflect the intentions of your division? Do they go far enough?
2. Are the objectives what is needed to implement the vision? What is missing?
3. Does your division have specific objectives relating to digital education? How does the strategy align with these?
4. Where is investment most urgently needed to achieve the aims of the strategy? Note that these will be considered for inclusion in the implementation plan being developed in conjunction with the new strategy, and with the iTransform bid.
5. What is needed from our educational technology partnerships to extend Oxford's global reach?
6. What is likely to be the impact of the strategy in your area? How might indicators of progress be determined?

(c) Background

1. The University's Digital Education Strategy was endorsed in 2016 and established a framework for engagement in digital education by setting out the structures, resources and approaches to ensure that in 2020 Oxford would remain a premier institution for teaching, adopting the very best of teaching innovations that are made possible by digital technology. The intention was that the strategy would be refreshed in 2021. The life of the strategy was extended to allow our efforts to focus on education during the COVID-19 pandemic.
2. In Hilary term 2021, Education Committee approved the membership of a working group to review the digital education strategy, noting the review would be conducted in two stages: an initial stage, carried out in Trinity term 2021 and the Long Vacation to review the experiences of teaching in response to the pandemic and identify early priorities for funding to inform the next budget planning round for 2022-23; and a longer term review involving divisions, colleges and professional services, to agree an overarching vision, strategy and investment plan for digitally supported education at Oxford.
3. The working group have articulated an overarching vision for digital education in the next 4-5 years, informed by the University Strategic Plan (2018-2024), the IT Strategic Plan (2019-2024) and the emerging GLAM Digital Strategy, and which maintains Oxford's

distinctive personalised education and promotes an inclusive approach. In line with the One Oxford ethos, the draft strategy presented in **Annex 1** encompasses all of Oxford's digital education presence provided by departments, colleges and professional services.

(d) Examples of digital education at Oxford

4. Digital education takes many forms depending on its purpose. For example, creating and curating teaching materials in accessible digital forms is a key strand of the inclusive approach to teaching which supports our ambition to eliminate degree awarding gaps. Offering some or all components of courses online may be one way in which to widen access and grow student numbers in specific priority areas. Digital skills development supports wellbeing by providing routes to developing capabilities that are needed for productive participation in our educational community and society more broadly. Table 1 shares examples of such diverse digital education practices collected through a series of stakeholder interviews with colleagues at Oxford, and maps these to the current education priorities.

Education priority	Examples of digitally enabled practice
Widen undergraduate and postgraduate access	<p>Moving <u>UNIQ</u> and <u>UNIQ+</u> online has allowed these initiatives to continue during the pandemic and reach even more students than previously. Over 2500 students participated in UNIQ in 2021.</p> <p><u>Opportunity Oxford</u> also had an online component to support students prior to arrival at Oxford, using this to integrate earlier developments such as the online <u>MPLS bridging programme</u>.</p> <p>The <u>Inspire programme</u> at St. John's college shifted online through the pandemic. This outreach programme offers a series of events, visits and resources for pupils in Years 9-13, and their teachers and parents/carers in non-selective state schools in selected London boroughs.</p> <p><u>Classical Conversations</u> from the Faculty of Classics now offers opportunities for teachers and students to meet Oxford academics virtually.</p>
Eliminate degree awarding gaps	<p>Focussing the response to Covid restrictions around <u>Flexible Inclusive Teaching</u> ensured inclusive teaching practices that benefit all students were embedded to support all.</p> <p>Projects such as <u>Inclusive Teaching Enhancements</u> are taking this further through introducing new functionality within Canvas to make it easier for students to view accessible versions of course materials.</p> <p>The Language Centre have developed an <u>Academic English Resource Centre</u> which supports all students but especially those from under represented groups.</p> <p>The <u>e-Assessment project</u> is providing the infrastructure to continue the diversification of assessment that allows all students to demonstrate their full academic potential.</p>
Grow PGT and PGR student numbers and UG numbers in priority areas	<p>Medical Sciences Division (MSD) have been using digital education to support PGT programmes aimed at professional learners e.g. <u>MSc Sleep Medicine</u>. In collaboration with the Department for Continuing Education (OUDCE), MSD have also developed a suite of postgraduate courses in <u>Evidence-based</u></p>

	<p><u>healthcare</u> in a flexible modular programme that offers over 200 accredited short course places each year.</p> <p>The Institute for Government and EPSRC Centre for Doctoral Training are among many parts of the university that have used Canvas to deliver courses for PGR students in specialised skills.</p> <p>Part-time online Masters courses such as the <u>MSc in Applied Linguistics for Language Teaching</u> offered by the Department of Education have been giving busy teachers the opportunity to study remotely since 2012, with in-person elements worked around school holidays.</p>
Improve student wellbeing and mental health	<p>Digital education tools are being used across the university to support wellbeing and mental health initiatives, from the <u>Counselling Service recommended readings</u> being shared on Oxford Reading Lists Online (ORLO) to the Disability Advisory Service using Canvas to provide access to <u>remote study skills</u> resources and <u>transition materials</u> for disabled offer holders.</p> <p>Departments such as OUDCE are also building virtual 'common rooms' into their courses so students can use their online spaces for social as well as subject based interactions.</p>
Address racism and discrimination	<p>The <u>Changing the narrative</u> project led by the Bodleian Libraries has used ORLO to share reading lists on Black Lives Matter and LGBT+ across Oxford.</p> <p>In the Centre for Teaching and Learning, the student experience interns 2021 used Canvas to develop a toolkit for race and the curriculum at Oxford (to be launched in HT 2022).</p>

Table 1. Examples of strategically aligned digital education practices 2016-2021

(e) Reviews of progress: 2016-2021

- Following the publication of the Digital Education Strategy in 2016 (DES 2016), the University Strategic Plan 2018-23 confirmed the role of digital technology as one of the opportunities for innovation which underpin our commitment to retain and refresh the collegiate University's rich academic environment (Education Commitment 3). The overall ambition of the Digital Education Strategy was to establish a framework for engagement and creativity in innovation such as by identifying and supporting local innovations and extending the areas of excellence that existed to encourage the adoption of the very best of teaching innovations that are made possible by digital technology. The recommendation to develop the usability and functionality of key digital platforms was intended to support academic staff as innovative teachers. The working group has conducted a number of reviews to assess progress in digital education during the time period of the DES 2016.

Realising the ambitions of the Digital Education Strategy 2016-2020

- In order to review progress in relation to the objectives of the DES 2016, 20 interviews were conducted with individuals and groups across Oxford including MPLS, the Language Centre, Education Steering Group, OUDCE, EPS, Divisional Heads of Educational Planning, the Disability Advisory Service, Student Registry, Maths Institute, Bodleian Libraries, MSD Learning Technologists, CTL Student Experience Interns,

Blavatnik School of Government, IT Services and members of the Working Group. A summary of findings is presented in **Annex 2**.

7. In brief, this review found that the period covered by the DES 2016 has seen sustained growth in the use of technology to support teaching and learning at Oxford, fast tracked by the catalyst of the switch to remote teaching due to the COVID-19 pandemic. The widespread foundational digital education adoption is underpinned by the availability of core platforms (Canvas, Panopto, Teams, ORLO, Search Oxford Libraries Online (SOLO), Oxford Research Archive (ORA), and Digital Bodleian) and improvements in their functionality, usability and accessibility. Notable transformations have been in tools for digitally enabled inclusive teaching, a platform for e-assessment, and the growth of GLAM's digital collections.
8. However, there have been challenges in resourcing both innovative projects as they transition into a service (such as Oxford Podcasts and Cabinet), and the basic service levels needed to run the core tool kit and allied services. Although these were bolstered by emergency resources available to support the response to the COVID-19 pandemic, agreeing the level of resource required will be a crucial to the success of the next strategy.
9. The most significant barrier to implementation of the DES 2016 was judged to be the lack of direct budget for this work, or a team with capacity to proactively and systematically pursue the implementation activities identified. In this environment IT Services were vital in identifying key initiatives which did see major transformation in this space, implementing a new virtual learning environment (VLE) for Oxford (Canvas) in such a way that this became a digital education project as much as a technology replacement one. However, the reliance on IT project funding for major interventions does inevitably result in a limited set of activities so that work which might have progressed other strategy areas such as policy intervention or skills development had no resource to enable them.
10. A governance structure has recently been established for digital education technologies in the form a Digital Education Technologies Steering Group which provides strategic oversight, leadership and coordination of the Canvas, ORLO, MS Teams and Replay services with the aim of providing a seamlessly integrated suite of digital education tools accessed through Canvas. This group will be guided by the new Digital Education Strategy and coordinate activities to support its implementation.

Review of Oxford's online course provision

11. The working group conducted a review of online course provision resulting in a catalogue of 87 courses (**Annex 3**), comprising 29 award bearing courses and a further 58 courses certificated in some way. When extended to include OUDCE's flexible short online courses and Weekly Oxford Worldwide courses, there are currently over 500 Oxford courses fully or partially taught online. Subsequently, 35 individuals from over 20 departments/units were interviewed (or otherwise contacted) to provide further data on the courses and to validate the information collected in this catalogue. Divisional offices are currently performing further checks on these data.
12. The largest number of courses has been identified in Social Sciences Division, the majority of these being non-award courses delivered by the Saïd Business School. OUDCE offers the largest number of award-bearing courses in coordination with academic departments from across the Divisions. In addition to partnering with OUDCE, Divisions have entered into agreements with six other commercial partners (Esme, Pearson, GetSmarter, Insendi, Construct and EdX) who provide a range of services from

marketing support to learning technology development. The lack of a preferred partner for Oxford or a supported pathway for those developing online courses, has resulted in a proliferation of partnerships and platforms used by students to access Oxford's online courses. Such plurality of partners can help with innovation but may miss opportunities for economies of scale.

13. The potential for a global/international audience reach is by far the main reason given by departments for the development of online courses, notably to reach audiences in low- and middle-income countries through lower priced formats, and for professional audiences who are studying and working at the same time. Other reasons cited are revenue (e.g., to fund scholarships); wider tutor recruitment opportunities; opportunity to engage new markets, more convenient study schedules; asynchronous formats for technical tuition to increase time for advanced discussions in synchronous sessions; and reduced travel costs for students and academics resulting in lower carbon emissions.
14. The global demand for a variety of online formats has required departments to undertake more experimentation and adopt a more agile strategy for high-impact programme pedagogy. In departments which are trialling or running online courses, professional staff have undertaken personal development in developing and delivering online programmes which has transferred specialist industry knowledge from educational technology companies ('EdTechs') into departments. Such experience and development help to design high quality courses which mitigate the challenges of online delivery such as the impact of global time zones and perceived loss of personal contact. The technical knowledge required for high quality delivery and increased workload upfront make this a significant resource decision for departments; but one that with the right university support or EdTech partner, and opportunity to borrow or draw upon growing expertise across broader departments or a central area, can potentially be beneficial to the department in the ever-changing world today.

Review of student experiences during the COVID-19 pandemic

15. The experiences of the student body through the pandemic are reviewed in **Annex 4**. These students witnessed the rapid shift to remote and online learning and their experiences have been collected in numerous student surveys and feedback channels. The review of these data was undertaken to understand students' lived experiences, issues, concerns, queries and requests. The aim is to advise on what students want to keep from their digital learning during the pandemic to inform recommendations for what should be integrated into our core digital offer long term.
16. Students very much appreciated their tutors' and supervisors' considerable support, flexibility and acknowledgement of the challenges of the pandemic situation. PGR students experienced difficulties accessing physical resources and facilities, especially libraries. The need to access physical and full-length monographs, rather than individual chapters, was highlighted. Postgraduates also saw networking and research activities, including primary research (e.g. conducting interviews) curtailed due to travel restrictions. They commented on the convenience of online supervision meetings and access to global researcher communities, however many found working remotely to be a mixed experience: supra-University commitments made home environments unfavourable for study and research.
17. Survey responses register significant benefits for students' learning in the online environment beyond the pandemic, specifically in flexibility in accessing preparatory, supplementary and revision materials, an enhanced ability to manage the workload,

reducing inhibitions, and the potential for diverse engagements. Importantly, digital education allows students to make the most of moments of contact with tutors and lecturers. More opportunities for peer-to-peer engagement and collaboration and more opportunities for contact time and discussion with lecturers, whether online or in person, is consistently requested by students whose learning is mostly or completely online.

18. The most striking finding is the ways in which digital education can be employed to help students manage the demands of Oxford's demanding academic and social environments and complex ecosystem. Students report that Oxford's high expectations can be mitigated by consistency and clear communication of expectations and deadlines, and flexibility in workload management. This can be facilitated by having timely and extended access to communication and informational resources in a central portal. The incidence of requests for everything to be in 'one place' is significant. There are specific requests from both taught and research students to use Canvas to its full functionality to provide access to well-structured and accessible resources, and more diversity in learning formats.
19. Open book exams were perceived by students as less stressful, and more authentic and meaningful as the preparation necessitated deeper learning rather than memorisation. Suggestions for adoption beyond the pandemic included providing more specimen papers, the ability to bring notes into traditional exams, extension of the Inpera platform to collections, and continuing to allow remote vivas.

Review of staff experiences during the COVID-19 pandemic

20. Staff consultation was gathered by during online workshops on 22 July and 8 September 2021, attended by 30 staff and 28 staff respectively. The workshops canvassed the work being undertaken in the Digital Education Strategy Review and provided an opportunity to discuss key questions in breakout rooms facilitated by a member of the Digital Education Team from the Centre for Teaching and Learning. The staff consultation process has been corroborated by a rapid review of four surveys of staff experiences of teaching through the pandemic. The findings are summarised in **Annex 5**.
21. The pandemic has opened the appetite for more permanent digital education objectives to be established for Oxford to continue as a leading institution. Gathered responses register significant benefits on digital provisions in terms of enhanced communications, including access to global speakers, facility of flexible information sharing with students and the ability to share feedback ahead of tutorials. However, e-assessment was an area of concern, potentially conflated with the related issue of open-book assessments. Staff felt that whatever provisions are enabled, these should strive to reduce the workload for both staff and students and 'not always add more.' Training, guidance, support and practical help with course building are indispensable to staff to achieve the desired digital transformation. Requests are made for more deliberated reflection on lessons learned for the future.

Review of digital education IT programmes at selected universities

22. The benchmarking summary presented in **Annex 6** has been collated from consultations with selected Universities, supported with further internet searches. This shows that Oxford is keeping pace with our peers in all areas other than online courses. There is a lot of rich information gathered from our peers and this will be presented in a report over the coming months. It is important to note that this data represents the first horizon when forward planning. The items benchmarked are the basic level activities currently being carried out by Oxford and our peer group. The IT roadmap and prioritisation exercise will take a holistic forward looking view and present initiatives on how Oxford can expand

and develop this first horizon, plus how we can factor in emerging trends that represent horizons two and three.

(a) Priorities for funding

23. In addition to informing the draft strategy, the purpose of this initial review was to identify early priorities for funding to inform the next budget planning round for 2022-23. This is identified as a task on the Education Risk Register in relation to Risk 6 – failure to exploit digital opportunities. The following priorities have been highlighted by the working group. It is noted that this is not a comprehensive list of the resources needed to implement the proposed strategy. Rather this is early prioritisation of activities in line with the direction proposed in the draft strategy. A fuller roadmap of investment is one of the next tasks for the working group (see section (h)).

- i. Further IT projects are likely to be needed to create and sustain an inclusive digitally enabled learning environment for all students. However, the implementation of the next digital education strategy should not be reliant solely on IT project funding. There also needs to be investment in digital skills development for staff and students, knowledge sharing across departments and creating the conditions which support innovation. The costs associated with this priority require scoping. Such an exercise is likely to involve ITLC and Bodleian Libraries who are both exploring digital skills frameworks for staff and students.
- ii. To support the current growth in online courses, there should be investment in developing a supported pathway for departments to scope, plan, design and build online courses which draws on the findings from the mapping of current process (para 27 iii), making use of existing centrally supported platforms and/or preferred EdTech partners as appropriate, while keeping knowledge internally. The location and staffing of this service should draw on subject experts across the university and digital learning design experts in OUDCE and/or the Centre for Teaching and Learning, and support the growing number of learning technologists being recruited into Divisions. A relatively small initial investment in a platform partnership and a small production team should generate ideas for outward and inward facing courses. These can serve impact, outreach, pedagogical, and recruitment aims. In time such a programme can develop the necessary pedagogical and technical expertise to deliver online or blended credit-bearing learning to enrolled students if desired. The example of other UK universities will be instructive here.
- iii. Following the closure of the Canvas programme, there needs to be continued investment in sustaining and developing Canvas and associated technologies, so that departments can use a centrally supported virtual learning environment to its full potential, providing students with supplementary resources and activities in one place as part of a flexible and inclusive educational approach. Short term funding was provided in 21/22 for two posts in CTL's digital education team and a software developer in the Canvas Applications Development group in IT services. Continuation of these posts is required to maintain the current services and support commensurate with the level of use of Canvas post pandemic.
- iv. Training, guidance, support and practical help with e-assessment are indispensable to staff to achieve their desired digital transformation of assessment. Continuation of the eAssessment project has been highly rated in the IT prioritisation exercise undertaken for Education IT Board this summer. However, the IT project does not cover the costs of the temporary post in the

Exams and Assessment team who is instrumental in pushing the rollout with Inspira forwards.

(b) Next steps

24. The draft strategy will be available for University-wide consultation by students and staff in Hilary term 2022. This will include focus groups, Town Hall events and an online survey. Details will be announced in the new year. The revised strategy will then be presented to Education Committee early in Trinity term 2022 and then to Council, with a view to it being implemented from Michaelmas term 2022.
25. In parallel to this consultation, the working group has three other specific tasks to complete:
 - i. **A roadmap of investment needed to achieve the vision, identifying potential areas for development and associated funding implications.** The roadmap will be informed by the IT prioritisation exercises undertaken for Education IT Board, the staff consultation events which initiated the IT Transform work, a benchmarking exercise with other universities, and the 20 interviews which have been conducted with internal stakeholders (see paragraph 6). An initial IT prioritisation exercise was carried out, in April '21, prior to the stakeholder consultations, to inform the Education IT Board of potential initiatives for future investment. This included initiatives such as the implementation of a Course Index with teaching unit management data, diversification of e-assessments, increasing staff digital capabilities through training, a pilot phase of centralised support for online graduate courses, a business intelligence tool proof of concept for digital education tools, such as Canvas, and improvements to accessing digital resources in a consistent manner. Papers, including the IT prioritisation exercise and stakeholder consultations, carried out during the Summer, are being prepared for IT Committee for the Development Plan, and Budget Subcommittee and Strategic Programme Planning Board to inform the 22/23 budget planning round.
 - ii. **A proposal for a Common Framework for digitally enabled inclusive teaching** for consideration by Taught Degrees Panel in Hilary term 2022. The review of student experiences through the pandemic highlights the need for attention to generic measures (practices) that will enhance inclusivity across the board, while also attending to student diversity and individual differences. The flexible and inclusive teaching (FIT) initiative was used to articulate a host of good practices aimed at enabling an excellent, high quality and above all, carefully tailored learning experience. The framework will outline what online content which students find inclusive should be retained after the pandemic and will provide continuity in these achievements after the termly 'teaching expectations' documents are no longer required.
 - iii. **Mapping of the current processes to set up, launch and deliver online courses.** This will lead to development of best practice guidance/decision trees to help other departments who wish to develop online offerings, especially in the area of delivery partners – whether from within the University or external commercial organisations. This guidance is intended to promote 'One Oxford' through sharing knowledge and expertise, improving capability, and simplifying the process for people setting up new online courses. This will contribute to a set of guidelines on developing online courses and recommendations for working with preferred partners.

26. The membership of the working group:

Professor Sir Nigel Shadbolt, Principal of Jesus College and Professor of Computing Science (chair).

Professor Susan James Relly, Associate Head Education, Social Sciences Division

Professor Tom Adcock, Associate Head of Department (Teaching), Engineering Science, MPLS

Professor Benjamin Thompson, Associate Head Education, Humanities

Professor Helen Christian, Medical Sciences Division and Chair of Education IT Board

Dr Jonathan Healey, History, Department for Continuing Education / Dr Alison Macdonald, Director of Undergraduate Studies, Department for Continuing Education

Dr Matthew Nicholls, Senior Tutor, St. Johns

Professor Kersti Börjars, Master of St Catherine's College

Safa Sadozai, VP Access and Academic, Student Union

Caroline Williams, Director, Open Executive Education, Saïd Business School

Professor Niall Winters, Professor of Education and Technology, Department of Education

Dr Alfonso Gazo, IT Manager, Department of Computer Science

Marion Manton, Head of Digital Education, Centre for Teaching and Learning

Dr Damion Young, Senior Educational Technologist, Medical Sciences Division

Professor Victoria Nash, Director, Oxford Internet Institute

Dave Smith, Enterprise IT Architect, IT Services

Professor Rhona Sharpe, Director, Centre for Teaching and Learning

Gemini Kahl, Digital Education Programme Manager

Louise Clarke, Interim Associate Director for Academic Library Services

Dr Amanda Tattersall, Education Policy Support

Rachel Dearlove, Education Policy Support

Annex 1: DRAFT DIGITAL EDUCATION STRATEGY 2022 - 2026

INTRODUCTION

Digital education is becoming central to our provision of ‘a personal education of each student... which equips them with the values, skills and intellectual discipline that will enable them to make a positive contribution to society.’ (Strategic Plan, 2018-2024). The IT Strategic Plan (2019-2024) provides a roadmap for improving IT provision across the university with a specific target to improve support for digital educational activities and facilities. The emerging GLAM Digital Strategy aims to facilitate teaching and lifelong learning through employing digital technologies to democratise access to collections. The Digital Education Strategy aims to build on these ambitions to articulate a vision for digitally enabled teaching and learning at Oxford which recognises the distinctive student experiences of tutorial, small group and college based teaching.

Within this context, the proposed strategy for digital education outlined below provides a framework for transitioning from the pandemic to new ways of inclusive teaching, creating conditions for innovation and experimentation, and expanding access to education at a global level. While these ambitions are not new, this strategy sets out a vision, statements of commitments and a prioritisation of objectives needed to achieve these goals.

The draft strategy has been created by a working group who undertook a review of progress since the previous Digital Education Strategy (2016), reviews of staff and student experiences of education through the pandemic, benchmarking against a peer group of universities, and a review of current online courses offered by Oxford. The findings of these reviews have been distilled down, leaving space for detail to be provided through a consultation period.

VISION

The ambition is to fully embed and integrate digital provision in the University’s educational offer in purposeful ways which support the student experience and the achievement of strategic goals. This will provide a strong foundation to enable innovative teaching methods to be extended across our diverse teaching and learning provision, both for students in Oxford and those worldwide who could benefit from access to our rich resources. The strategic objectives reflect these needs to both provide a resilient infrastructure for digital education and to support experimentation to ensure that teaching can adapt to meet changing needs. It is proposed that the priorities for the coming years focus on three themes for digital education: inclusivity, innovation and global reach.

THEME 1 – INCLUSIVITY

We recognise that for most students at Oxford their experience is a residential one, where they are primarily taught in small groups by leading academics who have autonomy over their choice of teaching methods and digital tools, with access to Oxford’s rich physical and digital resources. The complex ecosystem of the Oxford environment means that students are required to navigate through multiple organisational and communication systems. There is a tension between perceptions of the role this system plays in preparing students for a complex world and the extent to which it adds pressure to an already challenging and intense academic environment. Students have articulated the benefits of the flexible and inclusive educational approach adopted through the COVID-19 pandemic in mitigating the pressure and expressed a desire for some elements of this approach to continue.

As part of our strategic commitment to inclusive education, we will ensure that all students, no matter their background, prior experience, or disability have the chance to use digital learning materials, and tools to support their learning and digital assessment. We will harness the power of digital education to mitigate the effect of structural inequalities and enable equitable outcomes, including by providing multiple points and modes of engagement for students; enabling physical spaces for digital assessment, high quality recording and hybrid teaching; ensuring digital content meets accessibility requirements; improving wifi and providing a minimal technology specification for learning at Oxford and ensuring all students have access to this.

This will make sure that that the progress accelerated by the pandemic is not lost.

THEME 2 – INNOVATION

The foundation of fully embedded and integrated digital provision provides the basis on which to build. In line with the strategic commitment to innovation and excellence in teaching, we will support experimentation with digital technologies and new pedagogical models to ensure that teaching can adapt to meet changing needs.

We will capitalise on nimble, often local, innovation by providing lighter touch processes for funding, procurement, governance and risk frameworks. Providing a clear route to becoming a university service where appropriate, and vice versa. We will catalogue and signpost digital learning tools across the institution to aid discovery and avoid waste. We will mobilise our innovators to provide support for others.

We will engage regularly with staff and students to ensure we are developing innovative digital education practice at Oxford in collaboration with end users. We will build on existing networks and events such as the OXR Hub (Oxford X-Reality Hub) and hackathon to publicise new opportunities and partners with students and corporate partners to explore new visions and emerging tools for teaching and learning at Oxford. We will also use horizon scanning in collaboration with our global peers to identify new areas for exploration and share these.

This will make sure we are able to foster a culture of continuous improvement that ensures our digital education offering enhances Oxford's teaching and learning for students into the future.

THEME 3 – GLOBAL REACH

We can further develop digital education courses, resources and conversations based on the University's research and scholarship to open up aspects of Oxford's expertise to those around the globe who could benefit from learning from our world-changing education and research. Similarly, digital education offers opportunities for current students to benefit from engagement with experts worldwide. This aspiration for openness for the benefit of current students, potential students and academics is a significant driver for the development of online courses and activities. There is potential to expand Oxford's global offering further, focussing on extremely high quality digitally enabled education characterised by a personalised and inclusive educational approach, teaching from leading academics and access to Oxford's rich collections.

We will ensure that academic departments have a choice of preferred delivery partners, drawing on expertise within Oxford and from selected educational technology companies. The choice of partners will be guided by Oxford's strategic aims and commitments such as to open standards. There will be investment in the infrastructure required for the creation and management of digital assets and encouragement for these to be openly licensed to allow for wide use and reuse. Investment in Oxford's digital platforms will meet the needs of distance learners including for access to resources and tools for social learning. Support will be

coordinated to ensure timely and effective services are available to departments who are developing fully online provision.

OBJECTIVES

Achieving this vision will require oversight and coordination of a range of implementation activities and allocation of significant resources. The objectives below will guide progress to ensure that our educational offer will be characterised by digital infrastructure, services and activities which will enhance Oxford's specific teaching contexts.

1. Provide students with access to **a core digital offer** that builds on the most successful elements of teaching and supporting learning in the pandemic, permanently enhancing the student experience.
2. Sustain continued development of **a holistic and integrated digital learning environment** based on a centrally supported VLE integrated with other tools as appropriate to meet student and subject specific academic needs.
3. Enhance **physical infrastructure** to realise the full potential of the University's investment in digitally enabled teaching, learning and assessment.
4. Facilitate the **sharing of digital resources more openly**, providing clarity on copyright implications and making sharing easily available through centrally supported platforms.
5. Develop **governance structures** for the development of online courses.
6. Develop **student digital capabilities** to use digital resources and tools independently and critically, outside of core course delivery; to support their particular learning needs; to collaborate, create and communicate their work; and to operate effectively as citizens in a global and digital society.
7. Develop **staff roles and capabilities** as digitally skilled educators, reviewing staff roles and providing access to developmental pathways to extend teaching practices in line with the strategic themes.
8. Adapt to meet the **changing needs and expectations** of our students and staff, working in partnership together, and routinely monitoring and evaluating experiences of the role of digital tools in supporting their learning, personal and professional development and wellbeing.

EXAMPLE OF BRINGING THE VISION TO LIFE – INCLUSVITY

Xolisha Nilsson, Education
Correspondent

Digital Oxford: Paving the Way to Inclusivity

The onset of 2020 Covid pandemic kick-started an initiative to reshape the digital teaching and learning provisions in the city of dreaming spires.

Our education correspondent Xolisha Nilsson, speaks to Oxford Don Mark Pritchard and two of his college's students to understand this landmark turn around.

"Welcome to St. Judes", Mark greets me at the college lodge. We walk aside the lawned quad, through domed walkways and gardens, to take tea in the classic brown leather furnishings of the common room. It is quite something to think that, given these surrounds, much more could be done to improve the Oxford experience.

As we take our seats, we are joined by postgraduate student Joshi and biochemistry undergraduate, Shelia. "Just give me a second", Joshi indicates, as he taps his phone and arranges his walking stick in the stack. Shelia removes her coat to reveal a studded sari: "I have a formal dinner tonight," she smiles as she serves herself a cup of tea and takes a bourbon biscuit. Her iPhone alerts her that she has two new Canvas notifications. This afternoon's lecture has been cancelled and her tutorial slot has been moved forwards by a day. It is all synced with her calendars. She switches her phone to silent.

"These new digital provisions," Mark begins, "have done marvels at dispelling some of the myths of what it takes to succeed here." He continues, "I was hesitant at first. But the way it has been streamlined and the bite-sized training on offer, has made this much easier than I had imagined."

Shelia is in her third year and has witnessed the turnaround: "With just two clicks I can access my reading list, download a couple



of papers and identify a handful of helpful books and check they are available in the library." Coming from the US, Shelia is glad that despite its age, the University's thick walls can still accommodate a speedy internet connection.

More students amble into the common room. "Are you coming?" Joshi, from the classics department, is being called to a lecture on hermeneutics, from the faculty of philosophy. Joshi shakes his head, "not this time." Joshi is a keen and vibrant part of the transdisciplinary research community that has grown thanks to access to recorded lectures from other disciplines and international online events. It means time differences and scheduling clashes have finally been overcome.

Joshi continues, "I wouldn't have been able to get there in time and besides, the walk is just too much these days." Normally, Joshi reveals, he prefers watching the lectures live as he likes "being there", motivated by the presence of the other students and the ability to ask questions. The speaker is in the US and he will catch up with this hybrid lecture later. "I've got the presentation in Canvas, along with the notes and slides, and can listen to the audio. I prefer that to video, which is distracting". Over the past month, Joshi's cerebral palsy has been aggravated by the warm damp. He explains, "I love being there, but when I can't, I've got this next-best-thing option."

When it comes to molecular biochemistry, Shelia is more concerned with how the new digital provisions have enhanced her understanding of concept lens diagrams. "For lab prep, the pre-recorded instructional videos are great," she tells us. "The rest of my lectures are live streamed, and everyone can see the shared whiteboard, the diagrams, equations and algorithms. I used to take a photo at the end, and would have to locate, download and upload it to my computer. Now, I can go back and watch them unfold in real time and remind myself of how that conclusion was reached. I listen to the audio when cooking, so I don't forget to eat when I am revising!" she laughs.

Shelia continues, "The whiteboards are saved and are all automatically curated for me, together with the lecture resources, quizzes – they are great by the way – and my syllabi and assessment guidelines. Everything about my study and time at Oxford is personalised and all in one place. I know what is coming up and how to prioritise my time."

As they make to leave, she picks up her phone. There's a notification that she has got feedback from her Hilary term Collection Exam – that was quick! She opens up the Assignments tool and can see her exam paper (which was written on her own computer now the University have introduced e-exams) – her tutor has typed some annotated notes on the paper and has submitted some video feedback, it feels much more personalised than just text. She's pretty pleased with the feedback and notes the improvements her tutor suggested will help with her current assignment. Now, she reflects, she will be able to make the most of her face-to-face time when she next sees her tutor. She is off to collect those books from the library before dinner.

As we come to close, Mark invites me to his lecture. It is just next door, and Joshi is coming too.



Annex 2: Review of progress on digital education 2016-2021

The overarching aim of the DES 2016 was to encourage academic departments to look to those teaching innovations that already exist and review how digital methods might enhance their teaching and learning provision, building in the development of digital literacies. The strategy concluded with five recommendations:

1. To extend the areas of excellence in digital education that already exist and to ensure that all departments and faculties regularly review how digital methods might enhance their teaching and learning provision.
2. To use appropriate digital technologies to develop more inclusive provision for different learning needs.
3. To support academic staff as innovative teachers by developing the functionality and usability of key digital platforms.
4. To support students by making collections of resources more accessible and relevant to their learning.
5. To clarify, and agree the resources needed to develop digital education, where these might be most effectively situated, and how best funded

Progress on extending areas of excellence

1. The period covered by the DES 2016 has seen sustained growth in the use of technology to support teaching and learning at Oxford, fast tracked by the catalyst of the switch to remote teaching due to the COVID-19 pandemic. The widespread foundational digital education adoption is underpinned by the availability of core platforms (Canvas, Panopto, Teams and ORLO) which scaled up successfully during the pandemic. The method of rolling out Canvas is worthy of note. This took an expert led approach to transition so that every department was supported by dedicated learning technologists. These shared appropriate examples of best practice and worked with local experts to develop customised approaches, building on templates to promote consistency for students. This aimed to ensure discipline requirements were considered to allow fit for purpose implementation across the varied teaching and learning requirements found in Oxford.
2. As well as the Canvas rollout project, this period saw many initiatives to facilitate sharing of excellent practice across disciplines, modes of study and digital education tools. The recent consolidation of these into the Digital Education Technologies User Group, builds on collaborations initiated during the pandemic between groups such as IT services, the Centre for Teaching and Learning (CTL), the Bodleian Libraries and divisional/departmental teams. This is now allowing a holistic approach to this activity to ensure access to examples of excellent practice from the widest pool possible and dissemination in ways that make them easily accessible to staff across the university (see for example CTL Teaching Resources). This includes tapping into and supporting local networks where appropriate, with examples of thriving groups in the Language Centre and Blavatnik acting as a model which could be explored more widely.
3. Oxford had long had examples of excellent fully online teaching and learning happening in some parts of the University such as OUDCE and Medical Sciences Division. The period of the DES 2016 saw this grow considerably as more departments explored initiatives in this area from the Blavatnik MOOC 'From Poverty to Prosperity', the MSc in Sleep Medicine, to a growing portfolio of intensive, modular, development experiences from the Said Business School. This has seen colleagues explore a variety of models for development from MSD's low-cost approach, with minimal learning technologist input, through full service in-house teams such as TALL in OUDCE, to working with external development and delivery partners (some with marketing capabilities to attract

participants). This has meant that not all initiatives have benefitted from the expertise within Oxford, but it has enabled us to better understand the affordances of differing approaches and propose more coherent strategy for this space going forward.

4. As well as mainstream teaching and learning developments, this period saw the founding of the University's IT Innovation Seed Fund which acted as a valuable pump priming option for new projects, with a strong focus on digital education. Whilst this proved a valuable start up mechanism, several of the more successful projects such as Cabinet encountered the challenge of how to resource innovative projects as they transition into a service. Something not effectively resolved yet.
5. Finally, as well as tools or approach adoption, some parts of Oxford started to focus on digital skills. In particular, the Bodleian used the JISC digital capacity discovery tool as a mechanism to support a libraries wide approach to supporting and developing digital skills.

Progress on developing more inclusive provision

6. Inclusive teaching and learning supported through digital education is an area which has seen transformation in the duration of the DES 2016, through a combination of new tools, dedicated roles, targeted resource development and building from the start into wider activities such as the COVID-19 response of Flexible and Inclusive Teaching. This has been accelerated by legal requirements from new accessibility legislation.
7. All new digital education tools in use in Oxford are now evaluated from an accessibility perspective before implementation and several new tools or specific features in existing tools offer a transformed experience from a few years ago. These include Sensus Access which allows students to convert files into accessible formats and new features in Canvas such as the Immersive Reader and Search which allow staff and students more control over their use of the system. This will soon be enhanced by the implementation of BB Ally with additional functionality to ensure the accessibility of content in Canvas.
8. The CTL now has dedicated roles in the inclusive teaching and assistive technologies areas in both the Education Development and Digital Education teams who have developed a wealth of targeted resources such as An Introduction to Inclusive Teaching at Oxford course in Canvas, and the Accessibility guidance pages available through the CTL website.

Progress on developing functionality and usability of platforms

9. Migrating from WebLearn to Canvas has been the major factor in achieving the aim of improving functionality and usability of platforms for digital education in Oxford. The ability of Canvas to integrate with other core tools such as ORLO and Panopto has been vital, although further work is needed on the ORLO integration if it is to be universally useful. In addition, the ability to easily extend Canvas for particular requirements with additional (LTI) plug-ins for special use cases, ensures the platform can develop to meet evolving user needs. However, it is worth noting that, in aiming to provide an enterprise system for the entire university, it has not as yet been possible to accommodate all requirements for bespoke functionality required by particular disciplines/departments within the Canvas rollout. This has resulted in Maths and Computer Science choosing to adopt Moodle for 21/22 academic year. Furthermore, specific use cases such as Continuing Education short online courses are unlikely to move to Canvas due to a significant divergence in requirements which may point to the need to investigate additional platforms for use cases such as fully online distance learning as explored later in this report.
10. Surveys of staff and students show significant preference for the usability of Canvas over Weblearn with areas such as finding courses and information within them registering over 80% improvement for students between the two platforms. In addition, 88% of

students agreed Canvas supported inclusive teaching and learning with 92% satisfied they can access materials in the formats they need them. In this positive picture we also have evidence of non-trivial challenges for staff around adopting new tools which should not be ignored, but these are hard to disaggregate from issues caused by remote teaching. Ensuring there is resource for ongoing support for staff as Canvas and other digital tools continue their central role in teaching and learning is clearly a priority of the next few years.

11. This period has also seen huge uptake of tools not originally acquired for teaching and learning, such as Microsoft Teams, becoming a key digital education platform. Close working between teams in the CTL and IT services has ensured this has been done as seamlessly as possible within the constraints of the pandemic. It is worth noting proliferation of tools (centrally supported and not) with overlapping functionality, utilised in varying ways across Oxford ensures simple guidance and messages about their best use remain challenging to develop.
12. Finally, the e-assessment project during COVID-19 has seen the rapid transformation of digital exams and other digital assessment opportunities. The rapid timeframe of the rollout and the challenges of operating this at scale means there is much more to do and significant areas such as online marking and marks management have not yet been explored.

Progress on supporting students by making collections of resources more accessible

13. The duration of the DES 2016 has seen many of the major undertakings in this area move from projects to business as usual. Thus, aligned with the aims of the Digital Education Strategy, the Bodleian Libraries has established a Resource Discovery User Group and placed the user experience at the centre of service development. Over the last few years, the user interfaces of Search Oxford Libraries Online (SOLO), Oxford Research Archive (ORA), and Digital Bodleian have been redeveloped, and the new Bodleian Archives and Manuscripts digital catalogue (launched in 2019) has transformed the discoverability of archives. The digital collections have also grown, including over 1m images in Digital Bodleian and over 90,000 full-text items (including thousands of Oxford theses) in ORA. In the academic year 2020-21 there were 16.2m searches of SOLO, 12m downloads of ejournal articles, 2.5m ebook chapter downloads, and 2.3m downloads from ORA.
14. To help deliver the Digital Education Strategy, the Bodleian Libraries introduced a University-wide scanning service for reading list extracts under the CLA Licence (as part of the ORLO project), and the Curators of the University Libraries approved an 'e-first' policy for reading list provision to improve student access to taught-course materials. ORLO now holds 2,500 reading lists, 180,000 linked citations, and 5,300 scanned chapters for the 2021-22 academic year.
15. Digital methods have been embraced in the delivery of library skills training to help students make best use of library collections including webinars, videos, use of visualisers, polling tools, etc., with over 29,000 attendees (students, researchers and academics) in 2020-21. Workshops cover bibliographic and research data management skills, and are often embedded within departmental research methods training for students. Building on this foundation and the work of the Bodleian Centre for Digital Scholarship, the Bodleian is now partnering with the Humanities Division to teach a new MSc in Digital Scholarship (starts Oct 22).
16. Beyond libraries podcasts.ox.ac.uk continues to generate hundreds of free resources annually. For example, in 2020-21, Oxford Podcasts released 633 new episodes, in addition to the 673 new episodes in 2019/2020. These are available to learners in Oxford and globally. However, without the publicity new projects generate they awareness of the types of initiative are difficult to sustain. In addition, without funding to ensure

homepages etc are regularly redesigned these can rapidly look dated. However, the continued use of these platforms by end users to share resources publicly suggest at a local level these are reaching target audiences.

17. The requirement for teaching materials to be available online through the pandemic, acted as a spur for staff to explore new digital materials in the absence of physical options. This in conjunction with using Oxford Reading Lists Online (ORLO) to share these with students as part of their mainstream reading lists, has seen these types of resources more integrated into students' study experiences across Oxford than previously (with over 16,500 items shared in 20-21 lists) and offers new possibility for these approaches in the future.
18. This period has also seen the growth of smaller initiatives such as Cabinet, a welcome collaboration with GLAM that has seen many museum resources digitised and shared. It has also seen initiatives in individual departments such as the Language Centre who have developed an Academic English Resource Centre. Such collections support all students but especially underrepresented groups. Similarly, MSD's virtual microscopy system, CSlide, which provides web-based access to many 100s of digitised histological sections, moved from being used predominantly in-person practical classes, to being a mainstay of virtual practical classes. The Botanic Garden and Arboretum, Oxford University Herbaria, and the Department of Plant Sciences is highlighting 400 plants of scientific and cultural significance at Oxford Plants 400 <https://herbaria.plants.ox.ac.uk/bol/plants400>
19. Finally, this area of work also addressed the aspiration to see digital literacies and skills development embedded into the curriculum for students. Again this is an area where often initiatives were local such as the work in LMH which grew into the Oxford Study Skills Centre supporting many colleges but not available to all. More holistic approaches were developed as part of the rapid response to the COVID-19 restrictions, such as the Skills for Remote Study course developed by Student Welfare and Support Services.

Progress on agreeing the resources needed to develop digital education

20. The Technology Enhanced Learning (TEL) review undertaken as a result of the DES 2016, benchmarked Oxford's resource against comparable institutions such as Ivy League and Russell Group universities and identified there was significant underinvestment in this area. It also explored new models to structure and manage this resource which led to the founding of the CTL (although only towards the end of the original term of the strategy), bringing together educational development and digital education expertise in Oxford for the first time. This proved a significant and highly impactful undertaking in the context of the COVID-19 pandemic as the CTL acted as a central hub for activities across all teaching and learning and ensuring both technical and pedagogical aspects were considered in Oxford's approach to the response. Many of the networks, working approaches and collaborations now taking place at the University are due to this. Offering much richer opportunities for a sustained cross-Oxford approach to new opportunities in digital education would harness and build on these practices across the university community.
21. However even in this context, resourcing in digital education at Oxford remains a challenge. Both the move to remote working and the transition to BAU of Canvas showed that 'as is' there was not enough resource to support the basic service levels needed to run the core tool kit and allied services. Moreover, it is clear that the demand in this area has grown and there are many activities and projects that would need additional support to continue at the current level or greater if desired in the new strategic vision.
22. The situation has improved immeasurably in the last five years, especially bolstered by emergency resources available to support the response to the COVID-19 pandemic.

However, this took too long to be achieved during the period of the DES 2016 to fully realise the potential benefits. Agreeing the level of resource required to achieve the aims outlined here will be a crucial to the success of the next strategy

Commentary on benefits and barriers to implementation of the DES 2016

23. The period 2016-2021 has seen considerable achievements and a transformed picture in terms of engagement with digital education in Oxford. However much of this has been achieved in spite of, rather than because of, the DES 2016.
24. Major infrastructure projects such as the Canvas programme underpinned this transformation, and this would not have been possible without the clear mandate for this investment the previous strategy offered. However, successes in digital education in the last five years have also been marked by a piecemeal approach which is only recently being addressed by the foundation of the CTL and the temporary level of resource available in the digital education team currently to coordinate and support activities beyond basic services. This has been accompanied by the greater collaboration across units supporting digital education and a transformation in governance and user facing activities through groups such as the Digital Education Technologies Steering Group and User Group. This brings together previously separated consideration of intrinsically entwined technologies and practice, allowing a holistic approach for Oxford in the future with the potential for coordinated gains for our users not previously possible.
25. The most significant barrier to implementation of the initial strategy was the lack of direct budget for this work, or a team with capacity to proactively and systematically pursue the implementation activities identified. In this environment IT Services were vital in identifying key initiatives which did see major transformation in this space, in particular implementing a new VLE for Oxford (Canvas) in such a way that this became a digital education project as much as a technology replacement one. However, the reliance on IT project funding for major interventions does inevitably result in a limited set of activities so that work which might have progressed other strategy areas such as policy intervention or skills development had no resource to enable them.
26. It is also worth noting here that this period saw many significant activities undertaken by separate parts of the University but the lack of a centralised team to coordinate and support these until recently meant that the learning was restricted to the originating units.
27. In addition to resource issues, the lack of mandate around digital education activities makes all interventions more challenging to implement in Oxford than in many other institutions. Whilst the requirement to gain consensus for any large-scale interventions can result in stronger solutions in some cases, it can add immeasurably to the cost and complexity in others and actively prevent achieving certain aims such as a minimum standard or baseline for digital education provision that can be expected by students at Oxford.

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Annex 3: Review of current online course provision

Context and Approach

The focus of this investigation was into courses that existed online pre-pandemic – i.e. those that were only developed as mainly online courses. However, where relevant, courses that have moved online (or partially online) as a result of the pandemic have been included here, where there are plans to retain the online elements going forward.

No comprehensive list of online courses previously existed, so starting from an earlier drafted list, and extensive trawling of University of Oxford websites this list has now been collated. 35 individuals from over 20 departments/units were interviewed (or otherwise contacted) to provide further data and to validate the information collected in the tables.

Where it was not possible to fully validate all course information the courses have been highlighted in yellow. It is likely that there are further courses that have not been identified via the web-based research, and due to start of term workloads engagement with some teams has been limited, but the list collected is a significant start to our understanding of the online courses across the university. Divisional offices are currently checking the data on award bearing courses. They are not able to validate departmentally owned non-award bearing courses.

As there is no single definition of what is an *online course*, the data collected only includes courses where registration is required and there is a structured delivery. Online activities which were felt to be events or one-off lectures have not been included.

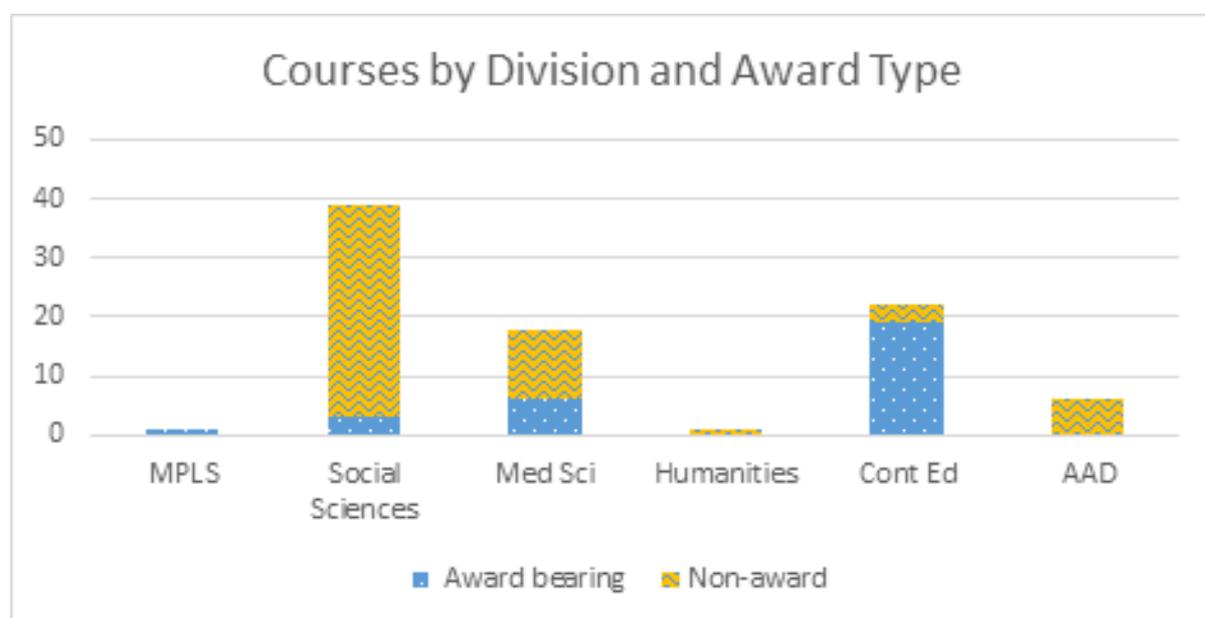
Caveat on data

Given the large volume of non-award courses managed by Continuing Education, these have been summarised at Programme level in the tables. Unless indicated, the references to course numbers in this summary **exclude** the Continuing Education Flexible Short Online courses (FSO) and Weekly Oxford Worldwide (WOW).

Overview and Findings

Including OUCDE's FSO and WOW courses, there are currently over 500 courses fully or partially taught online. 88 courses are documented in detail in the tables, the balance being FSO or WOW courses.

Division



The largest number of courses has been identified in Social Sciences, the majority of these being non-award courses delivered by the Saïd Business School. Continuing Education offers the largest number of award-bearing courses in co-ordination with academic departments from across the Divisions.

Course Type

The majority of online courses identified are non-award bearing short courses, for the general public, overseas and executive audiences. However, two MOOCs (Massive Open Online Courses), five skills training courses and divisional bridging courses were also identified. Note: further skills training courses are likely to exist but are not included here.

The audience reach of online education has meant there is a growing interest in both development of new open courses, and translation of existing courses into other languages to facilitate access to Faculty expertise and insights for participants in new markets.

Award

In total, 29 award bearing courses have been identified (excluding those where the award is credits and/or certificates). A further 59 identified courses are certificated in some way (either with a Certificate of Attendance, or a Certificate of Completion), including short modular courses, MOOCs etc. These courses are listed in Table 1 (award bearing) and Table 2 (non-award bearing) below.

Partners

A small number of courses are being run in conjunction with other universities. Several commercial partners are currently working with departments. Numbers indicate course numbers:

- Esme (6)
- Pearson (5)
- GetSmarter (18)
- Insendi (1)
- Construct (3)
- EdX (1)

The commercial partners that have been chosen vary depending on the type of external expertise that is required, e.g. Pearson, Esme and GetSmarter where marketing support is

needed, and Construct for learning technology development where transition of sessions from on-campus to virtual formats has occurred. The funding of development costs is an obvious incentive for the engagement of a partner, although the 60/40 (or similar) revenue split will also need to be considered.

Some of these are relatively new partnerships, but there is clear evidence that departments are sharing experiences already and as a result some of the partners are working with several departments.

Platform

A mix of Oxford 'internal' VLE platforms, collaborative tools and third-party commercial platforms are being used by students to access the online courses:

- Canvas (38)
- Moodle (8)
- GetSmarter platform (18)
- Esme platform (6)
- Open edX (7)
- Open Learn (1)
- Teams/Zoom (17)

Whilst all the award-bearing courses use supported Oxford VLE platforms (Canvas or Moodle), the platform choice for the non-award courses is influenced by a number of factors such as the size of team; strategic relevance of online delivery and technical experience within the team. The EdTech industry is undergoing consolidation and technology of the platforms is also rapidly changing and developing, e.g. the open-source edX platform having recently been purchased by 2U (MBA online commercial parent company of GetSmarter, headquartered in the USA), and the emergence of BrightSpace as an alternative platform.

Benefits of Online Teaching

The potential for a **global/international audience** reach is by far the main reason given by departments for the development of the current online courses, notably to reach audiences in low and middle income countries through lower priced formats, and for professional audiences who are studying and working at the same time. Other reasons cited are revenue (e.g. to fund scholarships); wider tutor recruitment opportunities; opportunity to engage new markets, more convenient study schedules, asynchronous formats for technical tuition to increase time for advanced discussions in synchronous sessions, and reduced travel costs for students and academics (resulting in lower carbon emissions).

Online courses offer **flexibility for students** – whether it is the only online course they are taking, or if the course is in addition to their Oxford UG or PG study e.g. language and skills courses.

By **removing the in-person need** for students and academics to be within the Oxford proximity, course directors have welcomed the ability to recruit academics/lecturers from outside Oxford (and indeed the UK), giving a richer pedagogical experience for tutors and students drawing on a much more worldwide experience of the subjects the courses cover.

It was noted during the interviews that the courses already being run online pre-Covid had little or no impact on their delivery during 2020/21. Some departments reported increased income as demand for online development accelerated.

Future Plans and Strategy

The first online-only course was launched in 1998, and since then there has been a slow increase in course numbers by one or two each year. A more significant rise in the number

of courses has been seen since 2019, with a peak where courses were moved online due to Covid.

A number of the departments approached for this research already have more online courses in development, or are considering further courses depending on the success of their current trial offerings. The global demand for a variety of online learning formats, has required departments to undertake more experimentation, and adopt a more agile strategy for high-impact programme pedagogy. At Saïd Business School, professional staff have undertaken personal development in developing and delivering programmes which has transferred specialist industry knowledge from EdTechs into the department.

The opportunities for innovative course delivery and the other benefits listed above, appear to be making the option of online delivery an interesting one for an increasing number of departments, to supplement and expand on the essential in-person Oxford experience.

However, it must be recognised that this is not a straightforward route to take as the impact of global time zones, perceived loss of personal contact if tutor models are not in place, technical knowledge required for high-quality delivery, and increased workload upfront to develop course content for a non-face-to-face experience, make this a significant resource decision for departments; but one that with the right university support or EdTech partner, and opportunity to borrow or draw upon growing expertise across broader departments or a central area, can potentially be beneficial to the department in the ever-changing world today.

Paper prepared 14th October 2021

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Table 1: Award bearing courses

Department	Division	Course	Estab. Year	Award	Audience/Profile of students	Student numbers/per intake/ per year	Course length	Teaching model	Partner	Platform	Mode of assessment	Matriculation/ other starting requirements	Why online?	In person expectations/ residency rules
Education	Social Sciences	MSc in Applied Linguistics for Language Teaching	2012	Masters	Working teachers/ professionals of TESOL or modern foreign languages	15	2yr part-time	Online - self-paced	n/a	Canvas	Assignments/written exams. 121 Teams meetings with Tutors	In absentia	Reach	Yes - 1 week residential in summer (when teachers not working).
Education	Social Sciences	MSc in Teaching and Learning	not known	Masters	Teachers, in primary and secondary schools and further education, including school leaders and school improvement officers, who are interested in developing a research-informed approach to their existing practice	??	2yr part-time	Blended	n/a	Canvas/Teams	Assignments, essays/reports, dissertation	Matriculated	Reach	Yes - teaching weekends and 2 day residential
Education	Social Sciences	MSc in Teacher Education	not known	Masters	new and experienced teacher educators involved in pre-service and in-service education who are interested in increasing their knowledge	??	2yr part-time	Blended	n/a	Canvas	Assignments and dissertation	Matriculated	Reach	Yes - 2 week long residential
Computer Science	MPLS	Software Engineering Programme - MSc / PG Dip / PG Cert	not known		IT/technical professionals.	70	2-4 yrs part-time	Blended	n/a	Computer Science	Written assignments + dissertation for MSc	Non-matriculated	Accessible for working professionals	None
NDM, Centre for Topical Medicine & Global Health	Med Sci	PGDip Global Health Research (pending approval)	2022	PG Dip	Suitably qualified/ experienced healthcare workers in resource-poor settings. To bring research capacity development to resource poor settings around the globe.	60 in year 1 increasing to 100 by year 5	14 months	Online-mixed	n/a	Canvas	tbc	Non-matriculated	Global overseas audience	None
Nuffield Department of Population Health	Med Sci	MSc in Clinical Trials	2020	Masters	Excellent graduates in medicine, biomedical sciences, statistics or other relevant background, who wish to expand their knowledge of clinical trials.	30 (intake)	2 years part-time	Blended	n/a	Canvas	Essays, presentations and exam	In absentia	Accessible for working professionals	1 week residential & option for 2nd residential
Nuffield Dept of Clinical Neurosciences (NDCN)	Med Sci	MSc in Sleep Medicine	2016	Masters	physicians; specialists who focus on 'behavioural sleep medicine; early career	15 plus 3 converting from PGDip	2 years part-time / 1 year for conversion from PGDip	Online - teacher led	n/a	Moodle	Essays/dissertation - Cont Ed manages	In absentia	Global need, Oxford expertise and SCNi funding. Very little competition.	Yes - summer school mandatory
Nuffield Dept of Clinical Neurosciences (NDCN)	Med Sci	PGDip in Sleep Medicine	2016	PG Dip	physicians; specialists who focus on 'behavioural sleep medicine; early career	18	2 years part-time	Online - teacher led	n/a	Moodle	Essays - Cont Ed manages	Non-matriculated	Global need, Oxford expertise and SCNi funding. Very little competition.	Yes - summer school mandatory
Nuffield Dept of Surgical Science (NDS)	Med Sci	MSc in Integrated Immunology	2023	Masters	Directors anticipate that candidates for the part-time course will usually be older, and typically in work as research scientists (e.g. in the pharmaceutical sector or working for medical SMEs) or clinicians.	12	2 years part-time	Online - teacher led	n/a	Canvas (with Teams or Zoom)	Same as II full time	In absentia	Reach	Yes - 1 residential week (mandatory)
Oncology	Med Sci	MSc Precision Cancer Medicine	2020	Masters	Health professionals from a variety of backgrounds working in all stages of target discovery and drug development	20 rising to 22 from	2yr part-time	Blended	n/a	Canvas	Written work, exam and disse	In absentia	Reach	Yes - 1 week residential
Continuing Education	Cont Ed	Undergraduate Advanced Diploma in Local History	1998	UG Advanced Dip	Anyone with interest in the localities and communities of the past	c45	1 yr part-time	Online - teacher	n/a	Moodle	5 written assessments and final project	Non-matriculated	Reach	None
Continuing Education	Cont Ed	Undergraduate Advanced Diploma in IT Systems Analysis and Design (Online)	2005	UG Advanced Dip	Those looking for career progression within IT, or to move into an IT role from another function	c38	1 yr part-time	Online - teacher led	n/a	Moodle	Marked assignments and team project	Non-matriculated	Reach	None

Department	Division	Course	Estab. Year	Award	Audience/Profile of students	Student numbers/per intake/ per year	Course length	Teaching model	Partner	Platform	Mode of assessment	Matriculation/ other starting requirements	Why online?	In person expectations/ residency rules
Continuing Education	Cont Ed	Undergraduate Certificate of Higher Education	2012	UG Cert	Anyone	60-80	2-4 years part-time	Blended	n/a	Moodle	Assignments. No written exam	Non-matriculated	Reach	Yes - at least one course in Oxford
Continuing Education	Cont Ed	Master's in International Human Rights Law	2002	Masters	persons in all fields of human rights practice	c 35	2 years part-time	Blended	n/a	Canvas	20% coursework; 50% exams; 30% diss	Matriculated	reach and student accessibility	Yes 2 summer residences
Continuing Education	Cont Ed	Post Graduate Certificate in Ecological survey techniques	2012	PG Cert	students and professionals needing to up-skill in: Environmental management; Environmental assessment; Biodiversity monitoring.	c15	1 yr part-time	Online - teacher led	n/a	Canvas	Assignments, work journal etc	Non-matriculated	Reach	Yes - 1 week module
Continuing Education	Cont Ed	Post Graduate Diploma in Paediatric Infectious Diseases	2008	PG Dip	Doctors/clinicians who have experience in paediatrics and desire triaing in the sub-specialty of infectious diseases	25	2 years part-time	Blended	n/a	Weblearn/Moodle	three written assessments, one oral presentation and one MCQ exam.	Non-matriculated	Reach	Yes - 2 periods of in person required
Continuing Education	Cont Ed	UG Diploma in Creative Writing (online pathway)	2020	UG Dip	Anyone with interest	c 35	2 years part-time	Blended	n/a	Moodle	Assignments. No written exam	Non-matriculated	Reach	Yes - 3 week summer school
Continuing Education	Cont Ed	UG Foundation Certificate in English Language (parallel pathway)	2020	UG Cert	Anyone	c12	2 years part-time	Blended	n/a	Canvas	Assignments, and written exams	Non-matriculated	reach	Yes - 1 week module
Continuing Education/ Dept Engineering Science/ Begbroke Science Park	Cont Ed	MSc in Nanotechnology for Medicine and Health Care	2015	Masters	those working in the commercial or healthcare sectors, who use, or expect to use, nanotechnology in their work.	5 and 16	2-4 years	Blended	n/a	Canvas	6 written assignments and a dissertation	Matriculated	reach	In person teaching weeks (modules 4-6)
Continuing Education/Dept Engineering	Cont Ed	Postgraduate Certificate in Nanotechnology	2006	PG Cert	It will appeal to those working in the commercial or healthcare sectors, who use, or expect to use, nanotechnology in their work.	5	10 months part-time	Online - teacher led	n/a	Canvas	3 written assignments	Non-matriculated	International appeal	1 attendance in Oxford per year
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	MSc in Evidence-Based Health Care	2009?	Masters	Professional working in the health service or a health-related field	34	2-4 years part-time	Blended	n/a	Canvas	Assignments & disserttation	Matriculated	Covid - returning to f2f for for non PG Cert modules	Yes - short intensive weeks of study, some modules fully online
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	Postgraduate Certificate in Teaching Evidence-Based Health Care	2019	PG Cert	future leaders in qualitative research	8	1-2 years part-time	Blended	n/a	Canvas	Written assignments	Non-matriculated	reach	Yes - short intensive weeks of study, some modules fully online
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	Postgraduate Certificate in Qualitative Health Research Methods	2019	PG Cert	future leaders in qualitative research	8	1-2 years part-time	Blended	n/a	Canvas	Written assignments	Non-matriculated	reach	Yes - short intensive weeks of study, some modules fully online
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	Postgraduate Certificate in Health Research	2009	PG Cert	particularly suitable for academically gifted medical and dental trainees with the potential to be the independent researchers of the future	1	1-2 years part-time	Blended	n/a	Canvas	Written assignments	Non-matriculated	reach	Yes - short intensive weeks of study, some modules fully online
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	Postgraduate Diploma in Health Research	2009	PG Dip	particularly suitable for academically gifted medical and dental trainees with the potential to be the independent researchers of the future	18	1-3 years part-time	Blended	n/a	Canvas	Written assignments	Non-matriculated		Yes - short intensive weeks of study, some modules fully online
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	MSc in EBHC Teaching and Education	2022	Masters	Teaching professionals	8	2-4 years part-time	Blended	n/a	Canvas	Assingments and dissertation	Matriculated		Yes - short intensive weeks of study, some modules fully online

Department	Division	Course	Estab. Year	Award	Audience/Profile of students	Student numbers/per intake/ per year	Course length	Teaching model	Partner	Platform	Mode of assessment	Matriculation/ other starting requirements	Why online?	In person expectations/residency rules
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	MSc in EBHC Medical Statistics	2017	Masters	Doctors, nurses, pharmacists, midwives and other healthcare professionals, seeking to consolidate their understanding and ability in medical statistics	12	2-4 years part-time	Blended	n/a	Canvas	Assingments and dissertation	Matriculated		Yes - short intensive weeks of study, some modules fully online
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	DPhil in Evidence-Based Health Care	2007	Doctorate	Those with an MSc in Evidence-Based Health Care as well as students with a master's in a related subject.	6	4-8 years part-time	Blended	n/a	Canvas	Thesis	Matriculated		Yes - min 30 days/yr
Continuing Education/Nuffield Department of Primary Care Health Sciences Centre for Evidence-Based Medicine	Cont Ed	MSc in EBHC Systematic Reviews	2017	Masters	Health professionals who want to gain an understanding of the importance of systematic reviews in health care as well as the practical skills to conduct them	8	2-4 years part-time	Blended	n/a	Canvas	Assingments and dissertation	Matriculated		Yes - short intensive weeks of study, some modules fully online

Table 2: Non-award bearing courses

Department	Division	Course	Estab. Year	Type of Course	Award	Audience/Profile of students	Student numbers/per intake/per year	Course length	Teaching model	Partner	Platform	Mode of assessment	Matriculation/ other starting requirements	Why online?	In person expectations/ residency rules
Blavatnik School of Government	Social Sciences	Evidence in Public Policy	2020 April	Short course	Certificate of Completion	The course is designed for those who need to be able to evaluate the impact of policies. Master-level course, mid-career professionals	100-200/year (four cohorts)	8 weeks	Online - teacher led	Pearson/Construct	Open edX - moving to BrightSpace	A project of their choosing based on the programme, some short assignments, discussions & practical exercises	Non-matriculated	Revenue & audience reach	none
Blavatnik School of Government	Social Sciences	From Poverty to Prosperity: Understanding Economic Development	2017	MOOC Open course	Certificate of Completion	Anyone who is interested in the topic	100,000	6 weeks, 2-3 hours a week	Online - self-paced	EdX	Open edX	Peer assessment: Unit Quizzes; Self-graded discussion forum input, final assignment	Non-matriculated	Audience reach	none
Blavatnik School of Government	Social Sciences	Values and Public Policy	2021 Jan	Short course	Other/None	Public sector professionals looking for top up of knowledge	100-200/year (four cohorts)	8 weeks	Online - self-paced	Pearson/Construct	Open edX - moving to BrightSpace	Final assignment/essay, assignments, quizzes, discussions & practical exercises	Non-matriculated	Revenue & audience reach	none
Blavatnik School of Government	Social Sciences	Economics for Public Policy	2022 April	Short course	Other/None	Public sector professionals looking for top up of knowledge	100-200/year (four cohorts)	8 weeks	Online - self-paced	Pearson/Construct	Open edX - moving to BrightSpace	tbc	Non-matriculated	Revenue & audience reach	none
Blavatnik School of Government	Social Sciences	Digital Transformation	2021	Short course	Other/None	Ed Tech public sector leaders in developing countries	c30	2 weeks spread over 3 months	Blended	n/a	Canvas/Zoom	Project and short report	Non-matriculated	Revenue & audience reach	none
Blavatnik School of Government	Social Sciences	AIG Public Leaders Programme	2021 Sept	Short course	Other/None	Aspiring public sector leaders in Nigeria (mid-career)	50-100	4 months	Blended	Insendi	Zoom	Project presentations and assignments	Non-matriculated	Revenue & audience reach	One in person week
Law Faculty (Bonavero Institute)	Social Sciences	Freedom of Expression	2021 (May)	MOOC Open course	Certificate of Completion	Legal professionals from all justice systems with an interest in human rights.	3000 completed to date; 5000 registered	5 weeks	Online - self-paced	Other universities /institutions	Open edX	Test and quizzes	Non-matriculated	Approached by UNSECO - wanting to widen understanding of human rights understanding	None
Oxford Internet Institute	Social Sciences	Digital Leadership Academy (provisional title)	2021 (Nov)	Non-credit	Certificate of Completion	Professionals in Indonesian government	35	2/3 weeks	Online - teacher led	n/a	Zoom	n/a	Non-matriculated	Financial - to support scholarships	none
Saïd Business School	Social Sciences	Pathways to success - Oxford Digital Finance Executive Series 5 programmes	2021	Professional development	CPD & Cert of Attendance	Exec education	As per constituent programmes	3 Programmes	Online - self-paced	Esme	Esme	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Artificial Intelligence Programme (from 6/10/21)	2019	Short course	CPD & Cert of Attendance	managers, business leaders, and technical professionals	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Blockchain Strategy Programme	2021	Short course	CPD & Cert of Attendance	Professionals, entrepreneurs	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	Esme	Esme	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Cyber Security for Business Leaders Programme	2020	Short course	CPD & Cert of Attendance	Business leaders, executives, entrepreneurs	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	Esme & Mastercard	Esme	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Digital Marketing: Disruptive Strategy Programme	2018	Short course	CPD & Cert of Attendance	Marketing Managers	Av. 100-200 participants, per presentation	8 weeks	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Platforms and Digital Disruption Programme	2021	Short course	CPD & Cert of Attendance	Leadership, policy making, government, legal, and entrepreneurial roles	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	Esme	Esme	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Entrepreneurship: Venture Creation Programme	2020	Short course	CPD & Cert of Attendance	Those planning or involved in a new business, entrepreneurs	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Entrepreneurship: Venture Finance Programme	2019	Short course	CPD & Cert of Attendance	Those planning or involved in a new business, aspiring investors	Av. 100-200 participants, per presentation	8 weeks	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford AI in Fintech and Open Banking Programme	2021	Short course	CPD & Cert of Attendance	Business leaders, executives, entrepreneurs	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	Esme	Esme	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Algorithmic Trading Programme	2018	Short course	CPD & Cert of Attendance	Traders, investors	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	Get Smarter & OxfordMAN Inst	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Executive Finance Programme	2021	Short course	CPD & Cert of Attendance	Non-financial business leaders, senior executives, managers, business professionals	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Fintech Programme	2020	Short course	CPD & Cert of Attendance	Business leaders, executives, entrepreneurs	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	Esme	Esme	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Future of Real Estate Programme	2021	Short course	CPD & Cert of Attendance	Professionals, executives, functional experts, leaders, and decision makers in real estate, finance, investment, engineering, and construction	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none

Department	Division	Course	Estab. Year	Type of Course	Award	Audience/Profile of students	Student numbers/per intake/per year	Course length	Teaching model	Partner	Platform	Mode of assessment	Matriculation/ other starting requirements	Why online?	In person expectations/ residency rules
Saïd Business School	Social Sciences	Oxford Private Markets Investments Programme	2020	Short course	CPD & Cert of Attendance	Finance professionals	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Executive Leadership Programme	2019	Short course	CPD & Cert of Attendance	Leaders and managers at all levels	Av. 100-200 participants, per presentation	8 weeks	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Leading Professional Service Firms Programme	2021	Short course	CPD & Cert of Attendance	Senior managers or current and aspiring firm partners	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Leading Strategic Projects Programme	2020	Short course	CPD & Cert of Attendance	Professionals seeking to introduce strategic approaches and techniques for project leadership	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Leading Sustainable Corporations Programme	2020	Short course	CPD & Cert of Attendance	Professionals interested in leading and accounting for low carbon, circular and climate positive business transitions.	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Women's Leadership Development Programme	2019	Short course	CPD & Cert of Attendance	Female managers and executives	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Climate Emergency Programme	2021	Short course	CPD & Cert of Attendance	Designed for senior managers and leaders, as well as consultants, who want to understand the impact of climate change on business, and vice versa	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter & Smith School	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Executive Strategy Programme	2020	Short course	CPD & Cert of Attendance	Business leaders and senior executives	Av. 100-200 participants, per presentation	7 weeks	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Organisational Effectiveness Programme	2020	Short course	CPD & Cert of Attendance	Executives, directors, and business leaders tasked with operation transformation	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Organisational Resilience Programme	2021	Short course	CPD & Cert of Attendance	Leaders across industries	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
Saïd Business School	Social Sciences	Oxford Strategic Innovation Programme	2020	Short course	CPD & Cert of Attendance	Senior business professionals, leaders, entrepreneurs, or consultants who want to enable innovation within their organisation	Av. 100-200 participants, per presentation	6 weeks + orientation week	Online - self-paced	GetSmarter	GetSmarter	learning objectives - quizzes, essays, course work	Non-matriculated	Reach	none
School of Geography & the Environment (Environmental Change Institute)	Social Sciences	IFSTAL (Interdisciplinary Food Systems Teaching and Learning) Programme	not known	Non-credit	Certificate of Completion	All postgraduate students at the participating institutions: Oxford University,	??	1 year	Blended	Other universities /institutions	Moodle??	N/a	Non-matriculated		Yes - summer school and workshops
School of Geography & the Environment (Transport Studies Unit)	Social Sciences	Global Challenges in Transport Programme	c2000 (in person)	Non-credit	Certificate of Completion	Professionals in government, global banking etc who have transport experiences/interest.	15/yr	4 weeks	Blended	n/a	Canvas	N/a	Non-matriculated	Covid - but global opportunities for students and academics	WIP - possible 2 week summer school
Smith School of Enterprise & the Environment (SSEE)	Social Sciences	Future of Sustainable Business	2022 (Jan)	Non-credit	Certificate of Completion	Executive education - anyone with interest in sustainable business.	30 per cohort? Not sure yet	6-8 weeks	Online - mixed	Pearson	Open edX	Quizzes & Exams	Non-matriculated	Reach - worldwide market	none
Smith School of Enterprise & the Environment (SSEE)	Social Sciences	Sustainable Law	2022 (Jan)	Non-credit	Certificate of Completion	Executive education - anyone with interest in sustainable law.	30 per cohort? Not sure yet	6-8 weeks	Online - mixed	Pearson	Open edX	Quizzes & Exams	Non-matriculated	Reach - worldwide market	none
Oxford Department of International Development (ODID)		Leaders Programme: Using the MPI as a Policy Tool	2021	Non-credit		senior professionals with a strong interest in multidimensional poverty and a capacity for influencing public policy priorities at an international, national, subnational, and institutional levels	Not known	5 days		n/a	Zoom	None	Non-matriculated	Global reach	none
Centre for Rehabilitation Research, NDORMS	Med Sci	UK EQUATOR Centre Publication School	2015 moved online 2020	Short course	Certificate of Completion	Early-career researchers, students and clinicians who need help with writing and publishing research articles.	35	4 afternoons	Online - teacher led	n/a	Canvas/Zoom	None	Non-matriculated	Reach/wider international audience	None
MSD Training	Med Sci	MSD Skills Training Programme	2020	Skills Training	Certificate of Completion	Any researchers/PGs looking for guidance on whole range of skills (NB: all courses currently online until classroom teaching is available again. All are teacher led and scheduled, but some have self-paced elements in Canvas. Matlab is our only online self-paced course but it is not hosted in Canvas.)	30/term (200 so far)	varies	Online - self-paced	n/a	Canvas	None	Non-matriculated	Covid but good for reach/ no rooms to book	None
Nuffield Department of Population Health	Med Sci	OxREIN programme: Intro to Epidemiology	From 2022	Non-credit	Other/None	OxREIN nurses, midwives and allied health professionals (NMAHPs) with little or no research experience access the skills necessary for a clinical research career pathway.	??	1 week	Online - teacher led	??	??	??	Non-matriculated	Reach	Option for 12 week part-time research placement

Department	Division	Course	Estab. Year	Type of Course	Award	Audience/Profile of students	Student numbers/per intake/per year	Course length	Teaching model	Partner	Platform	Mode of assessment	Matriculation/ other starting requirements	Why online?	In person expectations/ residency rules
Nuffield Department of Population Health	Med Sci	OxREIN programme: Practical Stats for Health Research Using R	From 2022	Non-credit	Other/None	OxH nurses, midwives and allied health professionals (NMAHPs) with little or no research experience access the skills necessary for a clinical research career pathway.	??	2 weeks	Online - teacher led	??	??	??	Non-matriculated	Reach	Option for 12 week part-time research placement
Nuffield Department of Population Health, Health Economics Research Centre (HERC)	Med Sci	Introduction to Health Economic Evaluation	c. 1999	Short course	Certificate of Attendance	Academics in allied disciplines, health professionals and health researchers in NHS and pharma sector consultants. 80/20 split of delegates from UK/rest of world	30-60	1 day	Online - teacher led	n/a	Canvas/Zoom	Teacher-led exercises follow the taught modules but no formal assessment.	Non-matriculated	Reach & income	None
Nuffield Dept of Clinical Neurosciences (NDCN)	Med Sci	Cognitive Behaviour Therapy for Insomnia (CBTI)	2019	Non-credit	Certificate of Completion	Practicing clinicians (Psychologists, Doctors, Nurses etc) who hold professional licences	50	2 days	Online - teacher led	n/a	Zoom	None	Non-matriculated	Covid but good for reach/ numbers	None
Nuffield Dept of Population Health, (HERC)	Med Sci	Applied Methods of Cost-Effectiveness Analysis	c. 1999	Short course	Certificate of Attendance	Health economists and health professionals, with some knowledge of health economics. 60/40 split between public and private sector audience.	50-60	3 days	Online - teacher led	n/a	Canvas/Zoom	Teacher-led exercises follow the taught modules but no formal assessment.	Non-matriculated	Reach & income	None
Nuffield Dept of Population Health, (HERC)	Med Sci	Integrating Economic Evaluation into Clinical Trials	2020	Short course	Certificate of Attendance	Clinical investigators, managers, researchers and others working in clinical trials - predominantly hospital-based researchers and predominantly from UK.	25	2 days	Online - teacher led	n/a	Canvas/Zoom	Teacher-led exercises follow the taught modules but no formal assessment.	Non-matriculated	Reach & income	None
Nuffield Dept of Population Health, (HERC)	Med Sci	Understanding and Predicting Choice Behaviour in Health: Preference Elicitation and Analysis	2021 (Oct)	Short course	Certificate of Attendance	This first course is being delivered to 75 health care professionals from a Malaysian Health Authority and 25 external delegates who are a mix of academics in allied disciplines, health professionals and health researchers in NHS and pharma sector consultants.	100	4 days	Online - teacher led	n/a	Zoom	Teacher-led exercises follow the taught modules but no formal assessment.	Non-matriculated	Reach & income	None
Nuffield Dept of Surgical Science (NDS)	Med Sci	European Course of Minimally Invasive Neurological Therapy (ECMINT)	2020 online	Short course	CPD	It is aimed primarily at neurointerventional trainees and junior consultants practicing in neurointervention but would almost certainly serve as a useful refresher for more experienced practitioners.	100?	5 days per topic/2 yrs	Online - self-paced	n/a	Canvas & Orzone (Swiss remote exam company) for assessments	Exam at end of each topic	Non-matriculated	Covid but good for reach	Option for in person Diploma in Nice
Wellcome Centre for Integrative Neuroimaging	Med Sci	FSL Course	2002, online since 2020	Short course	Certificate of Completion	Researchers who need to learn FSL software for clinical inaging	Capped at 300 this year online	2 weeks/annual course	Blended	n/a	Zoom	n/a	Non-matriculated	Reach, less travel/visa workload for team	none
Wellcome Centre for Integrative Neuroimaging	Med Sci	MRI Graduate Programme	2003, online since 2020	Non-credit	Certificate of Completion	New reasearchers, PhD and Post Docs at Oxford who need to know the theory and practice of MRI neuroimaging. Available to some external local organisations Eg. Siemens	40	1 year	Blended	n/a	Canvas	Termly exams	Non-matriculated	Less travel for non-JR based students	none
Humanities division (Digital Humanities)	Humanities	Digital Humanities: Humanities research in the digital age	2020	MOOC Open course	Other/None	Anyone interested in digital humanities.	??	3 weeks	Online - self-paced	Other universities /institutions	OpenLearn	Quizzes and learning tracker if sign up.	Non-matriculated	part of joint OCC DTP	none
Continuing Education	Cont Ed	Oxford Online Advanced Pre-sessional Course for Graduate Students	2018	Non-credit	Certificate of Completion	Students (both native and non-native speakers of English) preparing for postgraduate degree programmes in the UK	c5	9 weeks	Blended	n/a	Canvas	Two essays of 2,000 words and formative assessment during the course	Non-matriculated	Reach	None
Continuing Education	Cont Ed	Flexible Short online courses 248 currently available (from 13/9/21) with credit option 259 total available	2004	Short course	Other/None	Any	32 max (20 for Creative writing)	10 weeks (mostly), some 5 or 20	Blended	n/a	Moodle	Coursework	Non-matriculated	Reach	none
Continuing Education	Cont Ed	Weekly Oxford Worldwide (WOW) 201 currently available (from 20/9/21) with credit option 170 offered in-person option 296 total available	2020	Short course	Other/None	Any	25 max (18 for some courses)	6, 11 or 21 meetings	Blended	n/a	Canvas/Teams	Coursework	Non-matriculated	Reach	If preferred
Language Centre	AAD	Introduction to Academic Writing and Language	2020 online	Skills Training	Certificate of Attendance	This course is designed for international students and other University members, with little or no experience in academic writing, who want to develop their basic knowledge of English syntax and academic writing.	657 total all courses 20/21	2-8 weeks	Online - mixed	n/a	Canvas/Zoom	None	Non-matriculated	Reach	None
Language Centre	AAD	Key Issues in Academic Written Communication	2020 online	Skills Training	Certificate of Attendance	A course for international postgraduate students who are looking to improve their writing for their degree course	see Intro course data	2-8 weeks	Online - mixed	n/a	Canvas/Zoom	None	Non-matriculated	Reach	None
Language Centre	AAD	Academic Spoken Communication and Pronunciation	2020 online	Skills Training	Certificate of Attendance	A course to help students understand academic speech and to participate in seminars	see Intro	2-8 weeks	Online - mixed	n/a	Canvas/Zoom	None	Non-matriculated	Reach	None

Department	Division	Course	Estab. Year	Type of Course	Award	Audience/Profile of students	Student numbers/per intake/per year	Course length	Teaching model	Partner	Platform	Mode of assessment	Matriculation/ other starting requirements	Why online?	In person expectations/ residency rules
Language Centre	AAD	Modern Language courses (12 languages)	2020 online	Non-credit	Certificate of Completion	Anyone (80% students, 10% staff/aumni, 10% public)	2900 20/21	2-8 weeks with fast track 1 yr options	Online - mixed	n/a	Canvas/Teams	Quizzes and presentations	Non-matriculated	Reach and tutor recruitment	None
Language Centre	AAD	Pre-sessional Course in Academic English	2020 online	Skills Training	Certificate of Completion	An Intensive online English course for international students - UG and PG	80	6 weeks	Online - mixed	n/a	Canvas	Assessments throughout the course	Non-matriculated	Reach	None
Undergraduate Admissions & Outreach Office	AAD	Opportunity Oxford (Oxford University's Academic Online Distance Learning Course)	2019	Bridging	Other/None	UG offer holders who have a condition on their offer to take course, based on criteria list to help them prepare for coming to Oxford.	1st year 100 - this year 426 due to Covid. Planning for c200/year	c2 months	Blended	n/a	Canvas	Submitted work marked by tutors.	Non-matriculated		1 day and 2 weeks residential

Annex 4: Learning from students' experiences of digital learning through the COVID-19 pandemic

This is a summary of a full report which is available on [CTL projects webpage](#)

The experience of the student body, witnessing the rapid shift to remote and online learning during the COVID-19 pandemic and adaptations over the 2020-2021 academic year, has been collected in numerous student surveys. In order to review these experiences, CTL conducted an analysis and review of lessons learnt about digital learning, in the context of COVID-19 and remote teaching, drawn from the cross-analysis of the teaching and learning surveys, open feedback channels, Barometer and National Student Survey (see below for full list of sources).

Data analysis involved the use of NVIVO v12 software, Jisc Online Surveys analysis and the Tableau server and draws on quantitative (closed questions) to identify trends and quantitative data (open question responses) to understand lived experiences, issues, concerns, queries and requests. The aim of this review was to advise on what students want to keep from their digital learning during the pandemic to inform recommendations for what should be our core digital offer beyond the pandemic.

Survey responses register significant benefits for students learning in the online environment, specifically in reducing inhibitions, accessing preparatory and revision materials, an enhanced ability to manage the workload and the potential for diverse engagements as well as access to supplementary resources. Importantly, it allows students to make the most of moments of contact with tutors and lecturers. More opportunities for peer-to-peer engagement and collaboration and more opportunities for contact time and discussion with lecturers, whether online or in person, is consistently requested.

Clear expectations and deadlines

The perception of Oxford as a work hard, play hard environment is clearly expressed as such by some undergraduates, who also note '*the demands are intense and the environment very stressful*' and that it is a '*challenging place*'. The Oxford experience combines high expectations with the provision of a learning environment - '*libraries and people and beautiful city*' - students reflect, which enhances study and work. In context, in-person teaching as well as social events, networking and sport are important parts of the Oxford experience.

Certain communicative and organisational practices of the collegiate University (central university, colleges divisions, faculties and departments), together with specific features of Oxford's learning environment, as constituted by lectures, classes, tutorials, readings and independent study, aim to balance student autonomy and dependence on and within, the Oxford ecosystem (Figure 1). Within this, there is a clear indication that some give – some agility and flexibility - is needed in the system, both within and beyond the exceptional circumstances of the pandemic and long Covid.

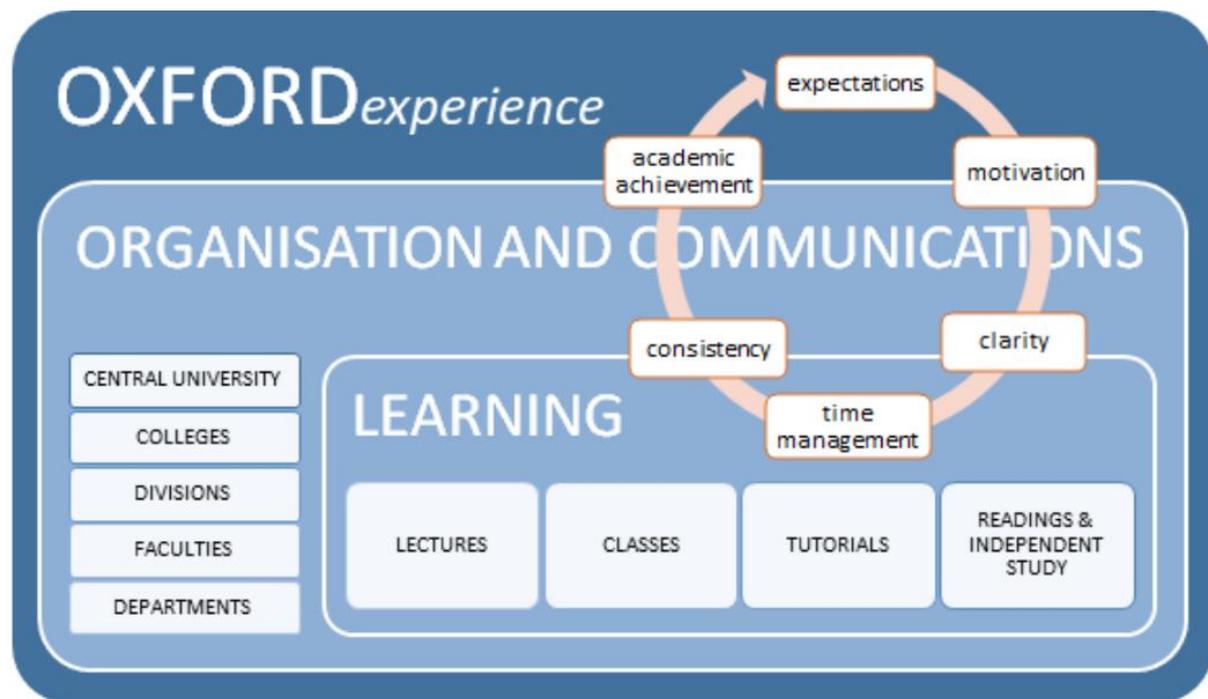


FIGURE 1: The Oxford Eco-system, operations and experiences

Expectations was a key word arising from the feedback channels, especially in Michaelmas and Hilary terms. High expectations can be mitigated by clear expectations and deadlines and flexibility in the time management of the workload. The request for *'Better communication/management of expectations'*, was qualified with well honed examples, including being given a timetable of content to expect, but still *'missing key bits of content planed in that outline.'* Others point to several more general areas, coalescing around **lack of clarity, consistency, timeliness and workload management.**

Reflecting on greater systemic concerns, the lack of course specific organisation was highlighted with requests for *'Putting things up on time / early would be very useful'*, mitigating a need for clarification via email. Consistency and the clear communication of expectations, are key themes arising in this context, as is a more systematised organisation of courses themselves.

Canvas, a one stop shop

Since the Canvas early adopters' phase (2018-2019), 2019 to 2021 has witnessed a 354% increase in the daily use of Canvas, that is a 140% increase in student and staff members using the service; constituting 88% of programmes of study at Oxford. Responses to the questions in independent surveys over the past year about what is 'working for you', 'one thing that has helped' and 'what one thing could improve your experience', many students simply responded with one word: 'Canvas'. Such positive mentions of Canvas constitute perhaps 90% of student spontaneous free text responses and point to its general acceptance and potential to operate as an integrated platform. This is irrespective of the Canvas survey data. One geography post-grad surmising what is working for them, specifies: *'posting all required content and prep-work on Canvas and emailing about action items.'* The incidence of requests for everything to be in *'one place'* is significant.

The potential to integrate communications and organise informational resources in one place, including but not limited to course specific material, is highly desired. The provision of one information source, that integrates and manages information from the central university,

divisions, departments, faculties, colleges (e.g., links to specific available resources, wellbeing and other support services, examination and course information, etc.) and channels communications and announcements, promises to have significant impact on issues related to clarity, consistency, timeliness and workload management, for students and staff alike.

More diversity in digital learning formats

The value of Canvas as a common repository is underscored by students, with a key asset being the ability to host a variety of digital formats and complementary material. The potential for Canvas to host resources in multiple multimedia formats, and the potential to include these formats thanks to the existence of the platform itself, is clearly articulated by students. There are specific requests to use Canvas to its full functionality, that includes more diversity in learning formats. This constitutes an important advancement for the inclusivity agenda and many staff are already using this space to provide resources, such as lecture notes, slides and problem sheets.

There is a recurrent request for dynamism and diverse formats: *'make it fun!'*, *'have online quizzes'* and for lectures to include *'images, quotes and videos'*, *'dynamic images'* and to *'add pictures, interesting facts, short videos'*. Sometimes explicitly, and sometimes implicitly, students are requesting training in digital pedagogy that actively addresses issues including *'video and audio lags and....people do not speak up out of fear of talking over each other when in a large group.'* Some identify 'video conferencing skills' as a professional development area for staff.

Online alternatives to lectures

Perhaps the greatest success story for online learning has been online lectures; which are far more useful when accompanied by slides and lecture notes. Lectures are a key and noticeable area of improvement, evinced by the Student Barometer. Scheduled lectures, whether this be the release date or date of live recorded lecture, the use of supporting material (e.g. slides or whiteboards), access to a range of well-structured resources (e.g. handouts or lecture notes) and opportunities for clarification, either in person or via discussion fora or chat, are details that make a difference for student engagement.

As with Canvas itself, *'online lectures'* was the overwhelming response to *'we want to hear things that are working for you'*. Consistently, students comment: *'Panopto recordings work well'*, *'good online lectures'*, *'the courses recorded on Panopto are well structured and accessible'*, *'online lectures are really useful for being able to pause, rewatch and take notes'*. Students enjoyed the ability to repeatedly access the resource, to pause and take notes, to rewind and clarify, and to speed up or slow down lecturers' audio. Overwhelming, video, ideally accompanied by slides, is preferable to audio alone.

Pre-recorded lectures are valued when they are short or broken up into chunks, have video switched on and have accompanying lecture notes or handouts. Students appreciate when lectures are *'broken up'*, organised into sections or themes, with several shorter videos of 15-20minutes, being requested, with students considering *'there is no real reason to keep it all together in one long lecture'*. Another student comments, *'anything over 1hour is not useful.'* Instructional videos are considered very useful for explaining protocols, for instance before accessing the labs.

Some students find that pre-recorded lecturers, make you feel like *'you are just watching a video.'* Live streamed lectures offer opportunities for clarification. There is an explicit preference for scheduled and recorded, live streamed videos with Q&A. Student comments are insightful with how lectures can better engage them in their learning. For some, this is

simply managing classroom dynamics in such a way as to facilitate conversations and dialogue rather than *'asking if anyone has any questions and waiting in silence'*.

In addition to more dynamic, interpersonal pedagogy, the provision of complementary resources - handouts, lecture notes, and having the PowerPoint slides available - are overwhelmingly cited by students. Comments include *'It is helpful if lecture slides/notes provided include writing as well as diagrams'* or *'I really appreciate it when all the written materials (such as lecture handouts) are designed to be self-contained.'* and finally *'Lecturers that provide lecture notes are very helpful -- it's a lot harder to engage with online/recorded lectures, which makes not having access to well-formatted and written notes a lot more difficult.'*

Timely delivery and well organised course resources have a significant positive impact on students who experience this. Lectures that *'are released early so it gives me an opportunity to work through the material at my own pace'* and lectures that are clearly paired with resources, is experienced positively. Students are requesting that the lectures are *'uploaded in a predictable fashion'*.

The Oxford tutorial online

The tutorial experience has not been overly affected by remote engagements, as required during lockdown. Rating of tutorial experiences remains in the 90% bracket and is only marginally lower in 2020 than in 2011. Integrated, well-structured and engaging tutorial encounters, timely annotated feedback prior to the tutorial itself, small classes and opportunities for discussion in reduced group sizes, were the main areas of positive learning experiences, whether online or in person. Online tutorials, where the tutor has provided written feedback in advance, were a clear crunching point. The key benefits are screensharing, worked examples, demonstrations and so forth. The main complaints for online tutorials are poor quality audio and video, and lack of engaged online pedagogy.

Many comments focus on feedback, with a lower-than-average satisfaction registered on the barometer for this year. Receiving legible, typed text or annotated feedback prior to the tutorial and follow up, consolidating opportunities, allowing students to make the most of their time during the tutorial, is highly valued by students: *'If tutors marked the tutorial problem sheets and returned them before the tutorial there they would know where to focus and us students would know where we need to improve.'* Another student notes, *'Send answers to the tutes afterwards and mark what we got right and wrong- some tutors don't do this and so you don't know what you have to write down.'*

As with online lectures, integrated resources and the provision of supporting or complementary asynchronous discussion with which to engage, is a recurring comment: *'Having a forum through which we can share and comment on material for tutorials is helpful in contributing to a sense of collaboration between tutors and students and between peers. It also means that all information and discussion is in one place; everything is clearly laid out and it prevents things getting lost in transmission.'* The online library facilitates were poorly evaluated, but ORLO and especially Canvas integration, widely appreciated.

Academic digital capability

Student comments range from praise for lecturers and tutors' active online engagement to dismay at a perceived lack of pedagogical skills and specific digital competencies, to the extent that some classes were cancelled as an online equivalent or some kind of substitute, was assumed to be impossible; perhaps due to lack of training or other challenges. The brunt of recommendations hedge around practices and pedagogy, including instruction and training in digital, remote and virtual learning environments. While there are technical areas that need addressing, specific tweaks to software and the provision of devices, especially output devices such as microphones and cameras, non-technical issues are at the forefront

of recommendations. Rather than the online learning per se, students are requesting capacity-building in digital pedagogy.

Learning technology for remote learners

The learning technology also remains wanting (with students registering a similarly poor level of satisfaction with college's learning technologies as departments). This is highlighted by specific examples, such as poor audio and video quality, commented upon by the students themselves. Compiled observations, particularly prevalent for 2020 and patterning out in 2021 include: *'video calls are poor quality so I can barely hear anything in the sessions'* or *'it's really horrible to learn using crackly audio with background buzzing'*.

Students are asking for *'decent quality microphones for recorded lectures'*, for lecturers to *'use good microphones'* and specific requests, such as: *'equip all staff teaching online with good microphones/headsets to improve sound quality'*. Others specified, *'when the lecturer presents to an empty room far away from their computer microphone it is sometimes very difficult to hear'*. Others still homed in on *'improve cameras'* or simply *'have better devices'* and note connectivity issues, including referencing Eduroam and noting lags during meetings.

Students request both greater use of digital whiteboards as well as more efficient software (not always specified. Whiteboards are deemed essential especially for Stem and maths teams and equation writing, with screensharing or the camera pointing at a blank piece of paper on which the lecturer draws, considered reasonable alternative options.

Sources used in review of student digital learning experiences during the pandemic

1) TT20 Student Feedback Channel (CTL and SU)

All students, UF, PGT and PGR invited; 361 respondents; survey open 4th May to 30th June 2020. [Part of the rapid review report.](#)

2) MT20 Student Feedback Channel (CTL and SU)

All students, UF, PGT and PGR invited; 128 responses; survey open 26th November to 13th December 2020. [See report.](#)

3) HT21 Student Feedback Channel (CTL and SU)

All students, UF, PGT and PGR invited; 169 responses; survey open 28th January to 26th March 2021. [See report.](#)

4) TT21 Student Feedback Channel (CTL and SU)

All students, UF, PGT and PGR invited: 60 responses; survey open 7th May to 4th July 2021. [See report.](#)

5) TT20 Student Survey of Teaching and Assessment (CTL and SDMA)

All taught students, UG and PGT (17,000 students invited); 3,188 responses (18% response rate); survey open 8 Jun-17 Jul 2020.

6) MT20 Teaching and Learning Survey for disabled students (DAS)

All DAS registered UG, PGT, PGR students. (approx. 5k, 5,372); 30 respondents; survey open 18 June to 1 July 2021.

7) MT20 Student Survey of Teaching and Assessment (CTL and SDMA)

All taught students, UG and PGT (19,708 students invited); 3,325 responses (17% response rate); survey open 12 Nov – 3- Dec 2020.

8) TT20 Canvas Student Survey (CTL)

All students, UF, PGT and PGR; 591 respondents. Survey open 5th March to 8th May 2021.

9) TT21 Canvas Student Survey (CTL)

All students, UF, PGT and PGR; 1,166 respondents. Survey open 17th May to 6 June 2021.

10) TT21 Disabled Student Consultation on Lecture Recordings (DAS)

All DAS registered UG, PGT, PGR students (approx. 5k, 5,372). Four students participated in a focus group consultation. 1st July 2021.

11) National Student Survey (2016-2020) (Office for Students, Ipsos MORI, SDMA)

External survey managed by Ipsos-MORI, data for 2021: 3066 students invited; 1366 responses (45% response rate); Final year UG; usually runs between Jan and April

12) Student Barometer (MT wk6-HT wk2 2020, plus 2010-2020 comparative data) (i-graduate, SDMA)

External survey managed by i-graduate, data for 2020 (survey runs in MT); around 24,000 invited/4003 respondents (18% response rate), all students (including NSS students and PGR).

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Annex 5: Summary of staff consultation feedback

Staff consultation was gathered from online workshops taking place on the 22nd July and 8th September 2021, attended by 30 staff and 28 staff respectively, with a total of 58 staff members consulted. The workshops canvassed the work being undertaken in the Digital Education Strategy Review and provided an opportunity to discuss key questions in breakout rooms facilitated by a member of the Digital Education Team from the Centre for Teaching and Learning. Individual responses were self-recorded on forms during the activity; these and the list of questions can be seen below. Invitations were issued to all staff, however there were more attendees from administration and support roles than academic ones. Nonetheless, the latter's engagement was significant during discussion and feedback.

The staff consultation process is here corroborated by a rapid review of four staff surveys: 1) Remote teaching: a survey for teaching staff, opening on the 14 May 2020 and closing on 3 Jul 2020, with 265 respondents; 2) Remote teaching: a survey for teaching staff 2021, opening on the 29 Jan 2021 and closing on 26 Mar 2021, with 55 respondents; 3) Canvas Staff Survey 2020, opened 5 Mar 2020 and closing on 8 May 2020, with 27 responses and; 4) Canvas Staff Survey 2021, opening 10 May 2021 and closing on 30 May 2021, with 64 respondents.

The pandemic has opened the appetite for more permeant digital education objectives to be established for Oxford to continue as a leading institution. Gathered responses register significant benefits on digital provisions in terms of enhanced communications, including access to global speakers (through Teams), facility of flexible information sharing with students (e.g. recorded lectures) and the ability to share feedback ahead of tutorials. However, e-assessment was an area of concern, potentially conflated with the related issue of open-book assessments. Digital education was understood to be a tool to strengthen Oxford's existing core strongholds, with a focus on streamlining basics. Staff felt that whatever provisions are enabled, these should strive to reduce the workload for both staff and students and 'not always add more.'

Training, guidance, support and practical help with course building are indispensable to staff to achieve desired digital transformation, as is a 'new etiquette/culture' that proactively recognises 'the fluidity of new ways of working'. Requests are made for more deliberate and sustained reflection on 'lessons learned' for the future.

Digital education in and for Oxford

Staff concur that digital education at Oxford needs to focus on enhancing existing strengths and streamlining basics. This request is envisaged to work across 'all elements of education', specifically to enhance opportunities for discussion, provide access to training materials and resources and to offer a variety of 'dynamic' media. This involves 'exploiting the great opportunities and tools available' - in a fully integrated fashion - in such a way to complement face-to-face teaching and not remain as a 'parallel or replacement provision.' There is concern here that 'the tool serves the pedagogical need, not the other way around.' Oxford should not 'be made to fit into the standards created by leading digital platforms', but tailor this to specific and identified needs and interests. Some of these needs may come from students, who should be listened but 'not pandered to'. Rather, strong indications from 'student feedback data' should be attended to. Staff are keen to avoid an online mandate and are concerned that guidelines be 'fit for purpose'.

Oxford's 'global reach' as a leading institution is significantly enabled by digital provisions. This manifests in the ability to reach and include diverse audiences and speakers and to be less limited by geography and venue size. Oxford's place as a world leader that supports students with digital provisions is understood as essential for both student satisfaction as well as when compared to other institutions. This is expressed as the potential for 'other institutions...[to] fill any vacuum'. Sometimes innovations are hedged within wider, framing

societal trends, acknowledged and accepted as the 'expectation....to make use of the range of resources that are available to us'. However, this need be informed by a critical reflection as to '(unintended) consequences of new ways of working'.

There is also some appetite for Oxford to be at the forefront of concrete opportunities for pedagogical innovation. The latter includes a desire to invite 'the real-world into the classroom (or vice-versa), providing transformational experiences to students and staff' and 'simulation' for activities that make new knowledge and experiences possible. A desire to exploit the transformative potential of education is summarised by the following statement:

'As part of a holistic educational vision, digital education opens doors, provides teachers with new ways of sharing their knowledge and enthusiasm and lets students learn how and when they want to. Good digital education supports and enhances all of education, it can even make what was impossible - possible.'

There is also appetite for more collaborative opportunities afforded by, but not limited to, the use of digital tools. It is suggested that when this is 'managed as part of a course, digital interaction between participants can be greater than that enabled in person and can also be immediately recorded and documented via digital whiteboards etc.' Workload, as a theme entangled with digital education, is addressed by incisive comments such as: 'The QAA has pulled Oxford up on multiple times about student workload. Digital communication often intensifies and isolates/hides work. Is there going to be a systematic consideration of student workload in the digital education strategy? I worry that otherwise digital education will inflate student workload.' Staff workload is a concern, with the recognition that it takes 'time to create multiple types of content' and that while lecture capture is valued, this format requires extra work. Teaching online has increased the workload for staff. Another staff member notes this process as 'a great chance to build momentum behind a systematic review of student workloads, which are far too high in Oxford.' Some surveyed staff members identified only an initial increase in their usual workload as it took time to learn how to engage with digital technologies.

Enhanced communications and information sharing thanks to Teams 'in ways that we couldn't have imagined before the pandemic', are appreciated. Opportunities to enhance organisation and communications are mentioned in relation to Teams and Canvas, with the word 'consistency' arising on several occasions and suggestions as to how calendar and timetabling software can reduce workloads for all.

Digital education and the inclusivity agenda

Staff recognise the ability of digital provisions to 'remove barriers', with a will to offer 'more diversity and inclusion while keeping the high standards expected from Oxford.' Overall, there is consensus that digitalisation and digital environments enhance flexibility in ways that attend to physical, psychological, and other access issues. Geographical reach, access to 'new audiences' including student diverse populations, are understood to specifically benefit. However, digitalisation should not be considered a 'panacea'. This important point draws on experience to reflect: 'I've found that students who tended to struggle with non-digital education also find digital formats difficult.'

The flexibility afforded by blended learning and hybrid teaching, which 'will (and should) become the norm...will give flexibility for many reasons (inclusion/ managing sickness/ addressing assessment gaps etc).' This is corroborated by the ability of online teaching to 'break down logistical and habitual barriers, changing behaviours'. Here, digital environments help cater and attend to 'introvert/extrovert learning styles in students' and enable those who are 'shy or neurodivergent to participate and communicate in classes / discussions.' The platforms alone cannot enable this, however. Rather, it is only those that are 'managed well' that can 'provide a voice for those who do not always come forward.'

Digitalisation and the provision of a 'digital corpus' is understood to enable a more inclusive experience, especially 'benefiting weaker students for example' as well as 'non-native

speakers' and attending to 'individual needs'. Lecture capture in particular is identified as 'brilliant for students to be able to access materials anytime.' One staff member elucidates: 'A resource that it is possible to return to and review in the light of later learning or for revision, especially for those students with specific learning disabilities or physical disabilities which may mean that having a digital resource alongside other types of teaching enhances learning. This is also important for all students, for example if a student experiences a life-event such as illness or bereavement, they can be confident that 'missed' lectures etc are still available.' ORLO is also specifically mentioned in this context. Staff recognise that the 'Accessibility Support for students with specific learning needs is excellent.'

Thinking of inclusion, staff distinguish between areas in which more flexibility can be achieved, and other areas where this may be more challenging, suggesting a separation of the two: 'Clearing barriers to covering material that just needs 'doing' and can be delivered online, probably without any live input.' Blended and/or hybrid learning in particular is considered 'a more efficient way of delivering teaching and increas[ing] the capacity and accessibility for students and researchers.'

The benefits of core tools within Oxford's educational model

Lecture capture, curated resources on Canvas in which clear expectations are formulated, and course information and deadlines all in one place, are the three principal areas of staff interest, with hybrid options well valued. In response to the question of which teaching practices and technologies they would prefer to drop, the answer was overwhelming 'nothing'. Canvas as a space to curate resources is widely appreciated, with staff considering they wouldn't have known what to do without it. The electronic marking of tutorial feedback, for both the humanities and the sciences, is a key area that staff recognise as beneficial for learning. Providing feedback ahead of time, and using the grading system on Canvas, were aspects that staff want to retain post-pandemic.

Miro and virtual whiteboards are also mentioned during staff consultation. Three of the four staff survey data sets consistently refer to digital whiteboards, with requests for a "workable whiteboard" that staff can engage with effectively and which students can also use. The skills and training to know how to best make use of them is also mentioned. There is concern for the whiteboard to hold "large amounts of legible handwriting" as "shared writing surfaces" is considered essential. These are invaluable when they can also be saved.

Teams is mentioned for its capacity for enhanced communications and information sharing, as well as information recording. Online Tutorials and small-group classes are deemed to be 'not great, but they are a viable substitute when necessary'. Staff have found managing larger groups online challenging.

Strong general consensus asserts that lecture capture is 'brilliant for students to be able to access materials anytime.' These also offer the ability to invite guest lectures – or seminar speakers - from afar. This is tempered by the recognition that it is hard for courses who have many lecturers who teach one or two sessions to encourage them to engage with the tools on offer, as it would involve lots of additional work on their part. Recorded, live-streamed lectures are the preference. However, whilst in 'an ideal world in order to benefit students and researchers, we would have live online, pre-recorded content (and face-to-face when we can) to be as accessible as possible', live online and pre-recorded supporting material is significant work for lecturers.

Some lecturers are concerned with the new authority given to lectures when captured and are concerned that this be seen as some kind of 'comprehensive syllabus (which lectures are not!)'. This is well captured by the statement: 'Having lectures recorded allows and perhaps encourages students to place far more emphasis on individual lectures than is intended. Rather than developing the skills of selecting and prioritising information and note-taking, having a springboard introduction or a useful consolidation.' Other staff note that 'job

satisfaction' may be compromised by a mandate for recorded lectures, asking for reflection on the difference between a lecture and a podcast.

Sometimes, the support required falls in the hands of departmental administrators who have been struggling with extensive 'audio and video editing', including caption editing. There is also a need for scheduling of lectures. With these benefits, comes a need for student support on how to make best use of the materials on offer: 'students: need support in terms of managing their time and to make best use of the learning materials provided (e.g. how to use recorded lectures for revision)

There is also reflection as to the possibility for important amendments to Oxford's educational model. This focuses on more opportunity for transformative learning by expanding certain areas of current practice and reducing others. This is well captured by practices like 'flipped classroom' and the statement: 'Developing a digital strategy that continues to highlight what Oxford is best at... providing high quality small group tutorial support and access to experts in the field. This can be achieved digitally, if more emphasis is placed on small group tutorials online and less on traditional lecture delivery (which is increasingly recognised as not really a good way to learn anyway, whether face to face or online)'.

Access to physical libraries is deemed an important part of the learning experience. 'Information literacy', the ability to find and identify the usefulness of informational sources as a key research skill, is expressed by Bodleian library staff who foreground the role of libraries in supporting student and researcher activity. Support and training in managing information resources (Open Access, Research Data Management, copyright, literature searching) as well as the skills to recognise and evaluate the quality of literature sources, are key areas that support the 'Oxford experience'.

The support required to use core tools digital and formative

Acknowledging the need to 'have to embed what we do in the current technological context', there is also the recognition that we 'don't know how to do it'. Both learning new skills and implementing them take time. Requests are made for 'digital literacy' and 'time to learn these new technologies'. Many staff members feel they have been 'stumbling through, making do and managing', rather than using the tools effectively and efficiently. Dedicated time to 'skill-up', in order to 'best meet their needs and their students' needs' is a request not for 'one-off sessions', but for 'sustained training': that is a comprehensive and coordinated training schedule, with regular training and updates. Access to 'tips', reminders and prompters to best practice as well as discipline specific training is also requested. Here, a focus on consolidating 'the basics' combined with 'opportunities to practice' are requested as well as 'more targeted training support'. Some suggest that staff be empowered 'to identify their own training needs', so that they can then 'work with confidence'. Others suggest that a 'mandatory digital literacy course that staff do yearly (like the InfoSec one) that covers things like accessibility, inclusivity, communication channel etiquette, etc. as well as InfoSec.' is needed. Student training is also noted here, as some students 'lack basic computer skills.'

The development of a new skill sets for lectures and administration staff, requires recognition. Some suggest that being a 'co-creator of online learning' is something that makes admin jobs 'much more attractive'; and that this be formally written into new job descriptions. It is suggested that encouragement from departmental heads is needed to ensure that staff take up digital provisions effectively and engage with the relevant training. This extends to 'Some kind of compulsory or obligatory training in accessibility' and pedagogical support 'on the different style of teaching'. In order for staff to be able to deliver to the best of their ability, they need well-conditioned spaces that enable this to happen and not reliance on home or existent facilities.

While focusing on departments, there is also a need for more college involvement and a 'parity of access/equipment' is requested. Requests are made for the 'support of experts....

who help with the technical aspects of creating or editing online content.' Specifically, the request is for 'More support staff and resources to help putting resources online (reading lists, moderating hybrid teaching), more engagement from teaching staff with pedagogies adapted to different media of teaching.' Here, 'having more support to prepare materials in advance would be useful: e.g. could we draft slides and send them to someone to make accessible?' Blackboard Ally, as part of The Inclusive Teaching Enhancements Project, should attend to the latter request, as is the request for a 'health check' and evaluation of staff's existing work.

More specific areas of development are how to manage non-standard virtual spaces with and for students: 'Guidance on allowing students to communicate and share. Creating online palliative care areas for non-academic discussion e.g. Tea break channel'

The establishment of both an etiquette as well as a protocol for storing and sharing files, on Teams and SharePoint, is requested. Understanding the reach, temporal and spatial, of information sharing online and its consequences, is an area of considerable ambiguity. Examples given include 'the administrator seemed to go through and delete all the meetings that had happened. I don't know if this is something that's required for security, but I haven't deleted any of my meetings/classes, and sometimes when I have deleted them I believe everyone who was invited gets notified that they are being deleted (this isn't great!)'. The following statement offers a good summary of key concerns: 'Rather than drop any innovations there should be a focus on interoperability between digital solutions so that they are even easier to use for both student and lecturer. Additional consideration and investment is needed to support course administrators so that they are able to support and help lecturers to make the most confident and effective use of the technologies available. Funding revenue expenditure is vital alongside any capital funding for digital teaching opportunities.'

A framework for digital education technologies

Conversations surrounding a common framework for core digital education technologies and their use in Oxford, is understood to require 'a higher level mandate', 'top to bottom.' Oxford's diversity is considered one of its great strengths, however staff agree that students need to know what to expect from their courses, and this should include 'a course calendar and course information to be available online and up to date, and for lectures, recordings and learning materials to be made available online as standard provision.' Consistency is again a word that appears in this context. One staff member speaks to this by noting that if Oxford is to 'compete effectively with other online providers worldwide, and provide some level of consistency for students' online experience (both in terms of technical quality standards/accessibility on different devices....[then].... some level of standards expectations of module templates)' are necessary. This is also deemed important for institutional accountability.

A common framework is understood to make the best use of staff and student time. One staff member notes that 'It is a waste of student time to go hunting around for resources that can be easily linked. Oxford has millions of resources and without clear guidance it is overwhelming to new students, many of whom have not been taught library/ research skills before.' Further, 'Online calendars by course - that synchronise with Outlook/Teams' 'Timetabling software - costing thousands in hours of staff time piecing them together manually' are further identified areas. With respect to already identified training needs, these would be well supported by 'A baseline level/standard for e.g. remote teaching (for Teams/Canvas). Speaking back to possible 'unintended consequences of new ways of working', the example given here is that of students auditing lectures in person, specifically a second-year student having access to third year resources. From this stems the question: 'Can they watch this' and 'Should they be able to?' A type of certification to demonstrate and reassure staff of their level of competence (a bit like the annual Infosec quiz) is suggested'. This is parallel to suggestions for the mandatory induction for students, 'where they are

introduced to the digital environment all the technologies they will use during their career at Oxford'

Canvas is cited as a place to implement a shared framework. Based on last year's experience, one staff member reflects, 'I hate to think how we would have handled the shift to online learning without it.' The suggestion is: 'Populating and using Canvas for all courses in the same manner.' Informational silos are mentioned as a potential issue for Canvas, especially when integrating software.

The struggle for a unified framework 'that fits for everything' is acknowledged, due to diversity, that is appreciated. The preference is for 'having a set of broad guidelines and expectations that support quality, innovation, accessibility and responsiveness to students would be useful.' Here it is 'principles rather than prescriptive rules' that are requested: 'It's a good idea to establish parity at a high level (as the other frameworks do) without prizing consistency (which may involve so many compromises that it stops things working well and coherently internally). The subjects and programme structures at Oxford are diverse and that diversity will show. This is a safe training ground for students to get used to the multiplicity of platforms, structures and expectations they will encounter in the world beyond university. The priority should be high-level parity and clear communication of local implementation of these high level principles.' A student-centred approach is suggested for focusing operations and activities, cited a 'brilliant way of gaining cooperation' of diverse operating bodies.

Supervision is identified as needed to ensure that implementation is effective, and support is envisaged as needed along the way. Here emerge concerns with costs associated with monitoring and auditing a new framework. Further, there are requests for an evidence base for pedagogic innovations, examples of best practice and the dissemination of work. This extends to evidence to support the adoption of a common framework.

Digitally enhanced assessment

Digitally enhanced assessment 'should be there to stay and be added to assessment routes'. This is a general consensus of those attending the meetings, however there was acknowledgement that other colleagues prefer 'invigilated, closed-book, type-written exams' and preferences are subject-specific: 'I think that written assessments being submitted online is much better than handing in at the exam schools. However, I think for certain subjects in-person exams are a necessity because of the sort of material the courses have. Some subjects might benefit from being able to digitally enhanced assessments in that they can do assessments that are more diverse e.g. allowing upload of various file types.' Digital assessment is a better reflection of 'the current marketplace' and existent skill sets. Conversely, there are concerns as to student ability are also expressed, 'I wonder whether different technical abilities will impact students' assessments, especially if they have an additional requirement which means they have difficulties, for instance typing. And also students who have not previously had extensive access to technology at school/6th form.'

Online proctoring/remote invigilation was an area identified to be 'dropped' and there were significant concerns as to plagiarism online. One staff member notes that 'at other universities with upwards of 60% of students being investigated for colluding during examinations. This is not a problem we can just ignore.' Digitally enhanced assessment is understood as bringing advantages to the marker, for whom typed scripts are easier to mark than handwritten ones. One member reflects that 'Online exams worked well, though they're harder to set and mark.' Here, support is requested for the 'exam process', in which administration associated with this is streamlined. Some suggested that this happen via Canvas, as a 'unified tool'.

One incisive comment reflects on this experience: 'The difficulty of providing feedback on 2020 and 2021 is that digital assessment has been combined and for many is conflated with open book assessment. These are not the same and do not go hand in hand. There are many frustrating and undeniable problems with Inspira as it was employed in 2021....'

suspect that much of the feedback that will be received on online exams will, on closer inspection, concern the open-book nature of these exams. The focus of transition (perhaps understandably) has been on the digital aspect but arguably this distracted from the more radical transition to open book assessment. The latter has not been well handled in all cases and in a lot of cases, I think relatively little adjustment was made. The 2020 and 2021 experience of digitally enhanced assessment is experience of hastily imposed open book assessment and that will need to be teased apart.'

Innovation in assessment methods is evinced by comments such as 'Exams should only be a part of the final assessment.' and that 'A variety of assessment types would be interesting.' This is also seen in the staff survey data, where both 'alternative' forms of assessment, as well as more opportunities for formative assessments, are mentioned. Evidence is requested to support a shift to digitally enhanced exams, including how they attend to inclusivity.

Questions used for staff consultation

Theme 1: Reflection, learning from last year and what next?

1. What innovations in teaching practice and technologies have been used this year that we want to retain?
2. And which ones would we prefer to drop?
3. What are we still missing?

Theme 2: Barriers and opportunities

1. Where are the barriers that digital education can solve?
2. What skills and support to engage in digital education do staff and students need they are not currently getting?
3. What is the best approach for us to support you in developing fully online courses?

Theme 3: Digital baseline?

1. Should we have a shared framework for core digital education technologies and their use in Oxford?
2. If no, why not? If yes, what should it include?

Theme 4: Pedagogy and FIT?

1. What is the role of lectures and recorded lectures in Oxford's future educational model?
2. What is the future of digitally enhanced assessment at Oxford?
3. What's important about digital education and how could we reflect that in a vision?

Back to plenary meeting (10 mins) (Wrap up and complete Form No. 5 – one open question)

Please let us know any other thoughts and comments about the digital education strategy review that have not been captured elsewhere.

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Annex 6 - Digital Education IT Programme Benchmarking summary

Area	Digital capability	Oxford	Cambridge	Bristol	Edinburgh	UCL	Bath	Princeton	Harvard	Yale
Teaching and learning	Common VLE used by a large percentage of university	4	4	4	4	4	4	4	4	4
	VLE centrally supported	4	4	4	4	4	4	4	4	4
	Wide use of Lecture Capture tools (e.g. Panopto)	4	4	4	4	4	4	4	4	3
	Wide use of videoconferencing tools for teaching (e.g. Teams, Zoom)	4	4	4	4	4	4	4	4	4
	Lab based digital tools in use			1		3	3			
	Implementation of a student mobile app	1		3		3	4	3	3	4
	Hybrid teaching spaces available	3	3	3	3	3	3	4	3	3
	Development of synchronous vs. asynchronous material (blended mode)	3	3	3	3	3	3	3	3	3
Exams & Assessment	Online tool for E-assessment in use for the long term	3	3	3	3	3	3	4	4	4
	Diversification of assessment (both summative and formative)	3	3	3	3	3	3	3	3	3
	Grading functionality (in tool) for assessment			3			3	4	4	4
	Online proctored exams in use	1	3	1	1		1		3	3
Online courses/Open education	Online graduate courses offered, non-accredited/professional	3	4	4	4	4	4	3	4	4
	Accredited online courses offered	3	1	4	2	3	1	1	3	3
	MOOCs offered	3	4	4	4	4	4	4	4	4
	Centralised offer partnering with external company (e.g. edX, Future Learn)	1	4	4	4	4	4	4	4	4
Measuring the effectiveness of digital education	Basic metrics from digital education tools being analysed and reported	4					4			
	Learner analytics implemented and actionable insights utilised	2		2		2	2	2		

	Tool used to provide this data (e.g. Power BI, Tableau)	2					3			
Immersive technology	Centrally supported (with lab facilities, or equipment provided)	3							4	
	Independent usage at the local level			3		3	3	3	3	3
Staff upskilling	Programme of training offered to staff on digital education tools	3	2	3	3	4	4	3	4	3
	Linked to CPD	1			4					

KEY:

	4 - Currently doing with good effect
	3 - Partially done, more work to be carried out
	2 - Planned
	1 - Not currently doing
	Not known

Questions asked during the meetings:

1. What teaching and learning changes implemented during the pandemic worked well, and you plan to keep moving forwards?
2. What teaching and learning changes implemented are you planning to build upon?
3. What have you done in the area of online assessment in the last year that has worked well? How will you now diversify assessment further?
4. What large areas/tools/systems, perhaps that don't already exist, are you planning to invest in over the next five to ten years?

Other questions when time permitted:

5. What level of centralised support is provided to Departments and faculties? Are you planning to increase/decrease this support?
6. Are you looking at upskilling academic staff on digital education, and its associated tools and systems? What have you done, and has this been effective? Are there plans to do more?
7. How do you report on the effectiveness of online learning and teaching? Which tools do you use for reporting? What data are you tracking?
8. Which immersive technology tools are you currently using to good effect? Which other tools will you invest in this area in the future?
9. Have you partnered with companies to provide fully online courses, and how has this worked for you