The UPPF Student Futures Commission

Call for written evidence.

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Please provide brief introduction to your organisation.

Jisc is the UK’s digital lifelong learning and research body. Its vision is for the UK to be a world leader in technology for education and research. At its heart is the super-fast national research and education network, Janet, enabling access to the digital infrastructure that UK education and research relies on, with built-in cyber security protection. Jisc provide technology solutions for colleges, universities and research institutions as well as public sector bodies, helping save time and money by negotiating sector-wide deals and providing advice and practical assistance on digital technology. Jisc is funded by the UK higher and further education and research funding bodies and member institutions.

Jisc has recently merged with HESA (the Higher Education Statistics Authority) enterprise, enhancing Jisc’s ability to support the education sector to use data to plan their business operations and improve efficiencies. Through Jisc’s merger with HECSU (the Higher Education Careers Service Unit) this year, the increased use of data to improve the careers, advice and employability of students in colleges and universities will support the Government’s priority in addressing post-Covid jobs.

Learning and Teaching Reimagined (LTR)

The resilience of the sector since the beginning of the Covid19 pandemic has demonstrated that with the right support, collaboration, advice and tools, universities will be able to embrace this uncertain future and learn from the 2020/2021 academic year.

To enable both the immediate transition to more technology enabled and blended learning models, in the Summer of 2020 Jisc established a ground-breaking partnership ‘Learning and Teaching Reimagined’, with 16 HE sector bodies including UUK, Advance HE and Emerge Education. From rethinking the role of the lecturer to identifying the best ways of investing in technology, the partnership provides university leaders with practical tools for digital delivery (to tackle immediate strategic challenges); as well as drive collective innovation and a vision for teaching and learning that enables the UK to offer a world leading digital student experience now and in the future. Set up in response to the Covid crisis, the work continues to engage every part of the HE ecosystem including students.

Findings from Learning and Teaching Reimagined are core to Jisc’s new Higher education strategy 2021-2024: ‘Powering UK Higher Education’. Jisc are already supporting the HE sector with a greater choice of digital resources for academics and students, strategy development with leaders, data and insight for planners, open research-enabling systems, help for students to find careers, and connectivity and cyber security protection for all. Jisc bring higher education communities together to solve problems and share experiences and in LTR we collaborated to highlight a new future and provided the tools to get there.

Section 1: Preparing for September 2021 and beyond.

As part of this Commission, we want to begin to share over the summer practical examples and recommendations on how universities are and should be preparing for the return of all students to campus in the Autumn.
Never have digital, data and technology been so important in meeting the challenges UK universities face, both for the immediate 2021 academic year but also longer term. Universities across the UK have been propelled to rapidly transform and change how they operated as the Covid-19 pandemic altered overnight how they had to deliver teaching and learning.

For the academic year 2021/2022, universities face the challenges of reduced numbers for both domestic and international students, reductions in funding and the necessity to ensure adequate measures in place for social distancing and other remaining Covid19 regulations. Jisc are focused on supporting universities, funders and government, bringing HE communities together to solve problems and share experiences, ready for the return of students to campuses in the Autumn and beyond.

There is much current debate about the approach universities should now take to retain the quality teaching and learning and value for investment in higher education, that students rightly expect in 2021/22. Jisc’s response draws on substantial collaborative work with the higher education sector carried out before and during the main lockdown periods which provides a positive consensus for a system that combines quality online teaching and learning with in-person teaching and interaction. This is a model where students can acquire the necessary academic knowledge through quality online lectures and other digitally-enhanced teaching formats, but also includes substantial face-to-face engagement with their peers and lecturers which equips them with the collaborative, communication and critical thinking skills that will benefit them in their chosen careers and learning pathways. This would also enable the flexibility required by the sector heading in 2025 that will be enhanced by the introduction of the Lifelong Learning Entitlement and also one that meets the demands of industry, as set out in Jisc’s vision for Education 4.0. There has been a huge amount of innovation in the sector in the last year that Jisc hopes the sector will maintain and evolve this and be encouraged to do so by Government and funders.

Preparing for 2021

In preparing for the next academic year there is common agreement that the main barriers to greater online learning and teaching relate to culture and not technology. Jisc’s Learning and Teaching Reimagined research identified seven sector challenges to full digital transformation of learning and teaching:

1. **Embed digital at the heart of university culture**: Leadership and vision are essential for transformation as digital becomes a central feature of learning and teaching.

2. **Invest in the short term but with a long-term strategic view**: Most university learning and teaching infrastructures need significant upgrades to support the expansion of online learning and teaching. As this is a rapidly maturing field, careful long-term planning is needed to ensure investment is strategic.

3. **Explore new economic models for high-quality blended learning at scale**: Scaling up high-quality blended learning and teaching takes considerable time and investment. If the shift is to be sustainable, affordable and widespread, work is needed on the economics that will allow transformation.

4. **Embrace blended learning in curriculum redesign**: Focusing on learning design, with student involvement, will ensure that it achieves high-quality outcomes and makes a difference by shaping fully accessible and inclusive learning.

5. **Expand the digital skills and confidence of students and staff**: Significant and rapid progress has been made in improving the digital capabilities of students, staff and leaders but there is much more to be done, and increasing all-round digital confidence remains a priority.

6. **Communicate the benefits of blended learning**: Jisc have evidenced a significant increase in the acceptance of digital learning and teaching, but further attention is required to understand and meet shifting perceptions, both within and beyond the sector.
7. Strengthen the response to digital poverty: The digital divide was brought into sharp relief in 2020 with students’ differing levels of digital access. This remains a priority concern for all groups and additional resources are needed to level up opportunities.

Throughout 2020, HE institutions needed to innovate, transform and develop new curriculum models that met the changing demands and needs of students, delivering courses either completely online or using a flexible hybrid model, and all the time observing the changing government guidelines on opening and social distancing, in the shadow of a potential further lockdown measures.

Our 2020-21 HE students digital experience insights survey clearly demonstrates areas for investment and improvement as universities continue to adapt a hybrid model – whilst 83% are motivated to use technology as an integral part of their learning, and only 33% of students felt they were informed about their health and wellbeing as a technology user. This issue of digital exclusion continues to be as a pressing issue. In the same survey, 1/5 of student respondents didn’t feel they had access to reliable Wi-Fi on campus. Early results from our recent DEI surveys (October 2020 – December 2021) are showing that 68% of HE students learning online in student accommodation had an issue of poor Wi-Fi connections, compared to 63% of students as a whole finding this an issue.

Section 2: Student experience and wellbeing.

Q1. How have students' mental health and wellbeing changed through the pandemic? What data or instances have you seen of changing health and wellbeing? Has this disproportionately affected any particular groups of students in your experience and if so, who?

In March 2020, at the start of the first lockdown, the wellbeing of learners and staff in tertiary education quickly become one of the most prevalent issues to address in the sudden shift to wholesale online delivery of teaching and learning. The impact of technologies and digital services on people’s mental, physical, social and emotional health can be wide-ranging and the challenge for universities is to keep pace with technology whilst providing learners with the support they need to use digital in a healthy and mindful way. Understanding the positive benefits and any potential negative aspects of engaging with digital activities is key to ensuring good learner wellbeing.

A key issue Jisc have seen change and worsen throughout the pandemic, that is coming through strongly in Jisc’s discussions with both staff and students, is around feelings of isolation and lack of connectedness with University’s. Creating a sense of community online that is of parallel value to that available on campus is a priority. Connecting students with peers, with academic and support staff, with essential services and with the wider learning community can help mitigate feelings of isolation, build support networks, friendships and maintain motivation to study. The 2020-DEI survey highlights that digitally mediated collaboration is not an activity that students often engage in. Low responses were recorded for activities such as discussing coursework with peers, working online with others and discussing digital skills development with other students. Yet, when asked what one thing their organisation should do to improve the quality of digital teaching and learning, “more interactivity and collaboration in digital learning” was the fourth most frequently cited response.

Jisc, alongside others in the sector, identify a need to rebuild these communities when students return to university across all levels of study, for example students returning in their second year who may not have met each other or had the experience they would have had being on campus and having a face-to-face induction.

4. How has the nature of physical university campuses - thinking about student living accommodation, lecture spaces, other learning spaces, and broader student spaces both internally and externally - changed during the pandemic? What of these changes do you think
ought to remain and / or continue after September 2021 to better support learning, socialising and student experience?

The move and transformation of teaching and learning to incorporate aspects of digital and online learning into the curriculum has implications on the usage of learning spaces and the university estate.

The circumstances of the past year have meant that teaching and learning have taken place largely without utilising the university's physical campus. While there is no question that the campus’ physical spaces will still play a major role in teaching and education, there is an opportunity to take the best of the digital learning environment and redesign physical spaces and facilities to be used to best affect and not slip back to the “old way” of doing things.

Redesign of physical spaces and facilities is seen as important by some universities, however the implications and the challenges that growth in online learning will bring to learning spaces and the university campus will need to be explored and acted upon.

Universities will be required to think about the space required for online learning, both on campus and off campus. Students will be on campus for some in-person teaching and then will need to access online learning but will be on campus for this. Universities will also consider the space and design implications of delivering online teaching as well. The sector will need to reflect on a possible future where institutions are able to maximise the use of space as students have the flexibility to learn online, in-person and across a spectrum of blended possibilities.

Jisc is continuing our research into the intelligent campus, learning spaces and digital platforms, and how these improve a seamless student experience. This includes how digital and physical estates work together so that they are responsive to student journeys and interactions. In terms of support and admin staff there is a strong argument to accommodate more home working reducing the need for much of the current office space.

5. What information do you think students want and need and where do they get it from in advance of term starting in Autumn 2021?

A key recommendation from Jisc's Learning and Teaching Reimagined initiative stated that 'Universities and sector organisations [should] establish research to remain in step with the changing digital preferences and expectations of prospective higher education students.

Our research shows students expect their learning experience to be interactive, engaging, accessible and enjoyable. They especially like the flexible and convenient nature of learning online, however as society moves out of the 'emergency' pandemic phase and into the new normal of blended learning, it is critical that institutions remain ahead of the curve in understanding the digital preferences of HE learners and put in place plans to respond to changes in expectations.

Example: Access to support services via online routes

From Jisc's October – December 2020 digital experience insights survey data set, only 51% of HE students agreed they could access all the university support services the required online. The bettering of signposting to critical support services via online portals is needed to ensure that all aspects of student learning and wellbeing are accessible, even when ‘off campus’.

6. Who has felt left out and what do they feel left out of throughout this pandemic and how can this best be addressed by institutions and the sector more widely?

Digital and Data Poverty

The digital divide came into sharp relief through spring/summer 2020 with the differing levels of digital access students experienced when they were away from campus. According to a September 2020
survey by the Office for Students (OfS), during the lockdown 52% of students said their learning was impacted by a slow or unreliable internet connection and 18% were affected by lack of access to a computer, laptop or tablet device. Jisc recognises the OfS’s definition of digital poverty – when a student lacks access to one of the following: “an appropriate device; good connectivity; reliable back-up when things go wrong; relevant software; a trained teacher; and space in which to work”.

Our own research has uncovered problems of student access to network connectivity, suitable devices and a space to study. Also, notably for many students, access to printers and digital resources are considered important for learning.

Jisc recommend that universities, government and funders provide additional funding or means to reduce digital poverty as a barrier to students accessing higher education.

There is a broader opportunity to proliferate federated roaming networks across England to enable a ‘virtual campus’ benefitting thousands of learners. Jisc has worked with DfE to encourage all English Local Authorities with an existing Govroam network to also apply eduroam – the UK’s bespoke education roaming network – at no extra charge. Eduroam is used by participating colleges and universities country-wide meaning students can safely and securely sign into quality Wi-Fi and access online learning seamlessly. If local authorities are to switch on eduroam in public places – such as libraries and community centres – students will be able to access their educational network in a wider selection of locations across the country, reducing the reliance on home networks which can vary in quality due to location and number of household occupants.

Assistive Technology in HE

Whilst overall, students with disabilities have responded positively to the emergency provisional move to online learning, there is progress to be made in the training and development of staff in the support and use of Assistive Technology (AT) - something Jisc are seeing as an increasing concern being raised by our membership. Providing teaching staff in Higher Education Institutions (HEIs) with high quality support to deliver AT assessment, provisioning and ongoing support for students could radically improve outcomes for all students, not just those registered disabled.

Evidence from Jisc’s 2019 Digital experience insights survey of over 6,500 teaching staff from 61 organisations found that 17 per cent of FE and 15 per cent of HE teaching staff said they used assistive technologies in their role. Of these staff, nearly a quarter in FE and 40 per cent in HE said they did not have the support they needed to use assistive technology effectively.

Jisc welcome initiatives such as the work completed at the University of Dundee which has resulted in the development of an MSc in Educational Assistive Technology which will train individuals on how to implement and support the use of technology within education to enable students with a broad range of learning difficulties and/or physical disabilities access curriculum. This course is being developed by expert practitioners and will involve substantive input from those active in the field, including Jisc subject specialists.

Section 3: Teaching and learning

Q2. Have you made, or are you planning on making, any changes to curriculum design or teaching plans in light of challenges to face to face learning throughout the pandemic?

Designing with inclusivity as the default is vital to avoid the potential for adverse impacts of online learning on disadvantaged groups. Curriculum redesign offers an opportunity to lower the barriers of access to higher education by ensuring all students’ needs are considered from the outset. In our leadership roundtables as part of LTR on the futures of learning and teaching, participants emphasised
the importance of creativity with curriculum design, involving students and lecturers and reconsidering aspects of course delivery and content.

Evidence from Jisc’s 2020-21 digital experience insights HE students' surveys on the perceived benefits of online learning included:

1. Replaying lecture recordings helps students to understand or catch up if unable to attend live sessions. Recordings allow students to manage the pace (slow down/speed up) and facilitate notetaking.
2. They help students for whom English is not first language and can be easier to hear than sessions in large lecture theatres.
3. Live sessions are more interactive and engaging than pre-records giving opportunities to ask questions and get timely responses.
4. Online learning is perceived as better by some students. The flexibility and convenience help students to schedule their studies around other commitments in a less rigid way.
5. Learning with and from peers is important to students - small group activities work better than larger task groups.
6. The effort that has gone into curriculum redesign, communication and support from academic and professional services staff support.

Alongside the above, the below features were areas where students highlighted aspects of online learning which needed improving:

1. Experiencing difficulties in accessing lectures and online resources
2. Timeliness, scheduling and timetabling
3. Student's report receiving too much work and expectations of a larger volume of independent work than usual but without the benefit of timely support.
4. Difficulty in concentrating. Too much screen time, some lectures too long, insufficient breaks, intenseness of delivery mode – causes fatigue and mental health concerns.
5. Communication issues – interactions in live sessions can be difficult if class size is large and if they don't know other students.
6. Isolation and loneliness

Taking the above student feedback into account, simple steps can be taken by HE institutions to improve the quality of online and digital learning and helping students to learn effectively online:

1. Get the basics right – ensuring stable Wi-Fi (on/off campus), reliable hardware and software, clear navigation to learning content, timetabling and session scheduling, audio and lighting.
2. Make online learning sessions more interactive e.g., quizzes, games, tests, small group tasks so they feel connected to each other, their course and their university.
3. Record lessons and make them available soon after delivery to aid personal learning preferences, revision and catch up.
4. Train and support lecturers to use online tools effectively in a pedagogically sound and inclusive way.
5. Think about the pace of delivery (too fast/too slow) and consider shorter bursts and regular breaks.
6. Create opportunities to talk to/ask questions of lecturers and fellow students and give timely individual and group support.
7. Offer timely feedback on formative and summative assessment activities.
It is important here to recognise how digital plays a critical role for students with additional needs, in delivering a successful and inclusive university experience. However, many disabled students still face barriers, with a quarter of DEI respondents rating the accessibility of their course as just one or two out of five in a recent report. Involving students as co-creators is a critical step for institutions in ensuring that the curriculum and learning environment is accessible to all.

**Case Study: The Open University (the OU) redesigning for success**

The OU uses a model that incorporates how students learn into the design of digitised modules, using multimedia to engage students, frequent formative assessment feedback to support personalised learning and analytics that can predict, with over 90% accuracy, whether a student is likely to pass or fail a module, informing early intervention and design improvements. An increasing number of its modules use augmented reality, and its OpenSTEM Labs enable students to operate scientific and engineering equipment at a distance using their laptop or tablet. A study app supports learning on a mobile device, including offline. While an OU module can have thousands of students studying the course, a key factor in students’ success is small group tuition, with each student in a tutorial group. To support student choice, one in five tutorials are normally in person, although during the pandemic all have been moved online.

4. What have been the successes and challenges of the blended model of teaching and learning, and how can these be built on and effectively transitioned into the post-Covid environment?

**Case Study: University of Northampton, successfully creating practical exercises online.**

From monitoring shopping centres remotely to giving evidence in virtual courtroom scenes, apprentices studying to be police officers at the University of Northampton shifted seamlessly to online for all their in-person training exercises in spring 2020.

Previously, students finished their training by ‘policing’ a shopping centre, using their newly acquired powers and procedures, and working under the supervision of an experienced instructor. After moving online, incidents of drink driving and allegations of robbery, shoplifting and suspicious activity in a shopping centre were recreated on video, via the virtual learning environment (VLE).

Students’ answers were discussed in a group webinar session where, for the first time, the whole class could learn from the experience. Webinar software was used successfully to replicate a mock courtroom scenario in which police officer apprentices presented statements from an incident, in front of two criminal barristers representing the defense and the prosecution. Students ‘attended’ court online and faced cross-examination by the two barristers on screen who had listened to their testimony. The process was equally challenging for the students, and all reported that it had been beneficial.

5. In what way has the role of grading, assessment practices and policies been adapted in light of the pandemic. Will any of this new way of working continue from Autumn 2021?

Assessment during the Covid-19 crisis has been one of the biggest challenges further and higher education providers have faced. As part of Jisc’s [vision for Education 4.0](https://www.jisc.ac.uk), Jisc see digital playing a positive role in making assessment smarter, faster, fairer and more effective. When online assessment is carried out properly, it drives improvement, shapes learner behaviour and provides accountability to employers and others. Crucially, harnessing advanced technologies to deliver exams in both vocational and academic subjects supports a more flexible system that moves away from high-stakes, end of year assessment. Jisc have set out a 10-year look-ahead into the opportunity technology offers in our recently published [Future of Assessment report](https://www.jisc.ac.uk), setting five targets for the next five years to learn from the pandemic and progress assessment towards being more...
1. **Authentic**: Assessments designed to prepare students for what they do next, using technology they will use in their careers
2. **Accessible**: Assessments designed with an accessibility-first principle
3. ** Appropriately automated**: A balance found of automated and human marking to deliver maximum benefit to students.
4. **Continuous**: Assessment data used to explore opportunities for continuous assessment to improve the learning experience
5. **Secure**: Authoring detection and biometric authentication adopted for identification and remote proctoring

**Learning from the cancellation of exams**

Jisc has been advising on how to transform existing assessment processes into online assessment, as well as how innovative digital solutions can be used to replace or replicate practice and lab-based assessments. Jisc have also provided thought leadership on some of the issues that arise when technology supports assessment such as virtual invigilation or ‘e-proctoring’ and will be undertaking a design and validation process for potential solutions to online assessment for tertiary education institutions.

Most universities have some model of online assessment and as a result of the Covid-19 crisis, most, if not all have interim solutions in place. However, there is a mixed picture across different year and subject groups. One notable challenge is in the area of practical and lab-based assessments, such as creative and performing arts, and the sciences. There will still be ongoing challenges in the 2021 academic year and for those universities who decided to deliver mainly online (for example to the international market) these include:

1. **Maintaining the academic standard and quality** as required by internal and external regulations, as they translate and convert existing practice into online modes.
2. **Ensuring staff have the necessary digital skills and capabilities** to successfully deliver online assessment, across the assessment lifecycle. Each step of the lifecycle will require different skills to deliver.
3. **Transform multiple modes of assessment to online versions at scale and at pace**. Many universities have experience of designing and delivering online assessment, however they will not have done this at scale or transformed at the pace required.
4. **Maintain student engagement** through the next few weeks and through the assessment process, as they continue to socially isolate and study remotely.
5. **Ensure student wellbeing during a time of crisis** remotely and consider the impact of online assessment on wellbeing as an extra pressure and source of stress.

6. **What has been the impact of the pandemic on university staff, so far as it affects engagement with students and the delivery of teaching and research?**

A clear learning from the pandemic is the further need to continuously support staff to innovate their digital practices and to embed sound principles of learning design into their practice as essential. This will enable higher quality online learning experiences for students underpinned by sound pedagogic principles.

In response to the question, “What one thing could universities do to improve the quality of digital teaching and learning?” One of the top themes was: “Help teaching staff to develop digital skills so they can support students effectively”. With lecturers leading the responses to ‘Who supports you most to use technology in your learning’ (34%) highlights a need to ensure there is at least an equal emphasis on the skills development and support of staff as there is learners.

There is an opportunity for students and staff to work more closely in partnership to design their online learning, especially as prior to the pandemic student partnerships were seen to be driving curriculum
innovation and digital practices. The pulse data from DEI surveys (Oct-Dec 2020) reported that only 36% of HE students agreed they were given the chance to be involved in decisions about online learning whilst only 34% agreed the concerns of students and their representatives were being heard. Involving students in all aspects of their digital experience was a recommendation of the OfS’s Gravity Assist report and an area for development for universities. Despite the pandemic and the prevalence of online learning, only 40 universities in the UK participated in the Jisc digital experience insights surveys this year which still shows the lack of importance shown to gathering students’ experiences of their use of technology.

Section 4: Employability

Q2. How do you think the pandemic has affected students’ future job market preparation and employability outcomes?

There is a greater need for labour market intelligence and careers advice at all levels of tertiary education. Students preparing for work are expected to be digitally proficient and a key question emerging for HE institutions is how can they prepare learners for the digital demands of their future workplace whilst ensuring students develop soft skills into learning to increase their employment prospects?

Early findings from Jisc’s 2020/21 survey of the student digital experience completed by 21,697 higher education (HE) students found that only 17% of students said they were offered support to develop information and data literacy skills, and just 28% said they were supported to develop basic IT skills. While high numbers of students reported having experienced transactional digital activities such as live and recorded online lectures, access to resources and assignment submissions in their learning; far fewer had taken part in collaborative projects and online research – skills employers highly value.

Of note, only 42% of HE students agreed they received guidance about the digital skills needed for their course and 25% of HE students agreed they were able to assess their digital skills and training needs.

Q3. In view of 2 above, how have you changed or enhanced your careers and employability support for students?

Jisc proposes that micro-credentials to enable a ‘Lifelong Learning Record’ should be introduced as part of the Government’s Lifetime Skills Guarantee. To deliver modularised, flexible learning efficiently in both colleges and universities, a digital record of a learners’ accreditation for prior working as well as prior learning is vital for employers, providers and students alike.

Through the micro-credentialing of bite-size knowledge, skills and behaviours, the ‘system’ will be able to identify when a learner has displayed competence in different aspects of their learning and add these to a lifelong learning record. As the expectations of employers change these micro-credentials will be able to map a learners’ knowledge and skills to these new requirements. Microcredentials would also help identify skills deficits by employers and employees needed to upskill to a level required for a new role as well as provide a means for transitioning to different occupations with more efficiency. Following Jisc’s merge with HECSU who provide careers advice and guidance for HE students, Jisc is developing a similar service for FE learners.

Underpinning the ability to introduce microcredentials for post-16 learners, is the better availability and use of data as well as improving connectivity and linkage between existing data sets. Notably, there is significant potential for increasing the connecting of learner focussed data within Government, by expanding and bettering the use of and access to Unique Learner Numbers (ULNs) in Higher Education in particular. Most UK learners have been issued with ULNs that are linked to their Personal Learner Record.
(PLR). ULNs have tremendous potential to support and enable Lifelong Learning by linking data on learner education, training, and skills to capture qualifications and accredited learning wherever and whenever it occurs.

Lifelong learning records provide a means of underpinning the opportunity for high quality careers and advice services and can also be used to help learners articulate their wider skills and connect different elements of learning. Prospects, now part of Jisc, collaborates with government, universities and employers to improve student and graduate career outcomes through information, guidance and opportunities. A well-managed approach to lifelong learning record’s offers students, staff and employers’ ways of:

1. Evidencing employability skills and graduate attributes
2. Making sense of learning and achievements across disparate parts of the curriculum
3. Engaging with personal and continuing professional development
4. Making coherent links between different stages of learning
5. Developing lifelong learning skills.

Enabling better use of ULNs across the lifelong learning journey (especially in higher education) could facilitate credit transfer for students switching courses or institutions and enable portfolio or accumulated learning over time. It will also support the growth in demand for accredited and verifiable micro-credentials linked to learner records.