Jisc’s National Data Strategy Consultation response

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About Jisc

Jisc is the UK’s digital lifelong learning and research body. Its vision is for the UK to be the most digitally advanced education and research nation in the world. Jisc operates, protects and develops the Janet network – the ultra-fast UK National Research and Education Network (NREN), 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.

Jisc is passionate about the ability data offers in enabling widespread benefits for society, students and the economy. As part of Jisc’s Education 4.0 vision for education providers to prepare students for 2030 and the demands of Industry 4.0, there is a critical need to embrace the power of data in delivering teaching, learning and even exam-free assessment using transformational technologies and solutions such as data analytics. Jisc’s role in enabling the better use of data plays a critical role in the UK’s education and research sectors, this ranges from enabling the sharing of data across globally significant research projects, to the creation of new innovative services such as the UK’s first national learning analytics service enabling universities to use data in real time to support student wellbeing and attainment.

Consultation Questions

Q1. To what extent do you agree with the following statement: Taken as a whole, the missions and pillars of the National Data Strategy focus on the right priorities. Please explain your answer here, including any areas you think the government should explore in further depth.

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

Jisc agrees with the focus and scope of the missions and pillars of the National Data Strategy, and agree that all stated Pillars are essential if the benefits of the Missions are to be fully realised.

In addition to the economic benefits of the better use of data, there are huge potential social advantages to be gained that would benefit from further exploration from the Government. Jisc is
particularly concerned with the responsible use of data in education to help support the wellbeing and learning outcomes of students in tertiary education, as well as deliver better operational efficiencies. To that end, Jisc recently led a university sector report (Learning and Teaching Reimagined) which concluded that a shift toward personalised online learning in the wake of the Covid19 pandemic should become a fundamental part of the new Higher Education model. This would inevitably rely on the better use of learner data by staff (and students themselves) through existing tools such as learning analytics and enable developing solutions such as attendance monitoring and curriculum analytics.

This would in turn support Government initiatives such as the Lifetime Skills Guarantee which commits to making tertiary (Levels 3-5) education more flexible to facilitate lifelong learning, and to make it easy for adults and young people to break up their study into segments, transfer credits between colleges and universities, and enable more part-time study. The technological solutions required to facilitate this rely fundamentally on the better use of datasets across the education and skills landscape.

Jisc would also emphasise the importance of the more open use of data in research as paramount to this strategy’s success. Openly sharing research data enhances the reproducibility of research, increases opportunities for collaboration and facilitates wider scrutiny and (re-)use of data. There are significant potential societal and economic benefits, in stimulating economic growth, increasing transparency and trust, increasing efficiency, improving decision-making, and fostering greater inclusion and public engagement. The current efforts to move towards this also see benefits from the creation of a digital support environment, a national data infrastructure for researchers and institutions to make best use of digital capabilities. The Covid19 pandemic has exposed the importance of strategic government support for the implementation of an Open Research environment, where research outputs are made openly accessible, and where the underlying research data is made available.

Q2. We are interested in examples of how data was or should have been used to deliver public benefits during the coronavirus (COVID-19) pandemic, beyond its use directly in health and social care. Please give any examples that you can, including what, if anything, central government could do to build or develop them further.

There are several examples where Jisc has provided direct support to universities, colleges, the research sector and institutions throughout the Covid-19 crisis around the following key areas relating to the storage and use of data:

1. As part of its work supporting the HE sector, Jisc developed a suite of free dashboards to facilitate higher education providers’ longer term Covid-19 recovery planning. These dashboards include elements such as data on offshore HE provisions, a tool for student number planning and fee impact forecasting. These have been accessed over 1,200 times by more than 90 HE providers and some sector bodies.

2. Jisc provides the open access search service CORE in partnership with the Open University, providing immediate access to clinical and research findings and data relating to Covid-19 that has been critical to international efforts in tackling the pandemic. This has further demonstrated the need for, and benefits of, open access to research more generally by improving information flow, speeding up the process of research, and ultimately in achieving societal and economic benefits.

3. Jisc continued to run the gov.uk domain for the Cabinet office and worked with the NHS to implement gov.uk in support of the Nightingale hospitals, deploying OpenAthens. The Cabinet Office acknowledged the significance of Jisc’s trust and identity services which have successfully maintained the gov.uk domain throughout the COVID-19 crisis. The infrastructure demonstrated a transfer of a 5TB COVID-related data set between the European Bioinformatics Institute (EBI) and Imperial College in under 3 hours at a data rate of around 500MB/s (4Gbit/s).
4. Jisc’s cyber security services responded to an increase in cyber-attacks during the summer, when the significant move to online learning and home working required ensuring the security of data across the FE, HE and research sectors. Jisc also provided free cloud consultancy advice to help upgrade critical digital infrastructure for colleges and universities that can house and store data safely. In the last six months alone Jisc has provided specific support to organisations directly involved in undertaking and supporting COVID research, including network level protection.

Jisc suggests a national education-sector facing campaign or the commissioning of sector guidance to promote the better use of data to improve student wellbeing and outcomes that could improve inclusivity and institutional efficiency.

Q3. If applicable, please provide any comments about the potential impact of the proposals outlined in this consultation may have on individuals with a protected characteristic under the Equality Act 2010?

n/a

Q4. We welcome any comments about the potential impact of the proposals outlined in this consultation on the UK across all areas, and any steps the government should take to ensure that they take account of regional inequalities and support the whole of the UK?

Jisc has supported the shift that colleges and universities have made to deliver online learning accelerated by the impact of the Covid-19 pandemic. The pandemic has however, created a digital divide for some learners in their ability to fully access online education. For the National Data Strategy to achieve its stated aim of delivering real change, it needs to consider the disparity in the online education that many institutions and consequently, students are experiencing. These are dependent upon geographical location and other circumstances including the ability to invest in robust digital infrastructure that supports the use of data, or the availability and affordability of mobile devices to enable remote online learning. The final missions of the strategy must take already existing disparities into account, consider how the Covid-19 pandemic has accelerated or heightened these, and align with the Government’s levelling up agenda.

Regional disparity in Further Education and Skills

There is a regional disparity between the strength and resilience of colleges’ digital infrastructure across the UK which would inevitably prevent the confident capture and use of data and prohibits ensuring the security and resilience of the infrastructure on which data relies. 13% of English FE (32 English colleges) have less than 1Gb/s primary connections despite Jisc providing 1Gb/s bandwidth as part of its subscription. Ensuring strategic investment into the infrastructure that supports the use of data in learning, by upgrading 32 colleges with sub-optimal connectivity to 1Gb, would help to alleviate the regional disparities learners currently experience. Levelling up resilient connections across England is also critical to giving the FE sector the motivation and confidence to digitally transform by bolstering their digital infrastructure to be future proof to threats.

Regional disparity in research

Ensuring there is commonality of access and infrastructure support across all research disciplines and UK regions, with parity of access to high-speed connectivity, security and data storage, will ensure the UK research sector can fulfil its potential in delivering innovative, world leading research, and maintain its position as a scientific superpower.

Jisc supported think tank Demos to carry out research into the impact of Artificial Intelligence on the research sector to support the digital transformation of research practises and unleash the power of data that many advanced technologies rely on. It is acknowledged that the increase in demand across all regions and disciplines for compute, data and connectivity services is resulting in a heightened
need for data storage capacity and fast network that can, for example, move large datasets quickly. The report recommended that a UK-wide audit of research computing and data infrastructure provision is conducted to consider how access might be levelled up nationally. This would enable Government and the sector to address any current disparity in access to critical digital research infrastructure services, that are vital in ensuring cutting edge research can be carried out across institutions and regions, securely and at pace.

Solutions for reducing the disparity of access to digital infrastructure and continuing to support development of Authentication, Authorisation and Accounting Infrastructure (AAAI) that could eventually enable a single set of credentials to log in to any digital research infrastructure resource, are of significant interest to Jisc. The growing role of AAAI as a vital component of the UK’s future e-infrastructure is a result of fast-paced developments over the last few years in the research process where Artificial Intelligence (AI) could play a stronger role in enabling these processes.

Mission one: Unlocking the value of data across the economy

Q5. Which sectors have the most to gain from better data availability? Please select all relevant options listed below, which are drawn from the Standardised Industry Classification (SIC) codes.

- Accommodation and Food Service Activities
- **Administrative and Support Service Activities**
- Agriculture, Forestry and Fishing
- Arts, Entertainment and Recreation
- Central/Local Government inc. Defence
- **Charity or Non-Profit**
- Construction
- **Education**
- Electricity, Gas, Steam and Air Conditioning Supply
- Financial and Insurance Activities
- **Human Health and Social Work Activities**
- Information and Communication
- Manufacturing
- Mining and Quarrying
- Transportation and Storage
- Water Supply; Sewerage, Waste Management and Remediation Activities
- Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles
- **Professional, Scientific and Technical Activities**
- Real Estate Activities
- Other

Q6. What role do you think central government should have in enabling better availability of data across the wider economy?

Data and the infrastructure that the UK's research sector relies on plays a critical role in enabling the Government's goal of increasing the UK's expenditure on R&D to 2.4% of GDP by 2027. It also underpins one of the five key foundations of the Industrial Strategy, that of “a major upgrade to the UK’s infrastructure, and similarly the R&D roadmap ambition to “develop our digital research infrastructure capability – data, supercomputers, software, and people – by building an internationally leading national digital research infrastructure”.

There's an increasing reliance on data in the UK's research sector, specifically the ability to transfer and access large datasets quickly, and the use of technology in research is creating increased
pressure on existing national digital infrastructure, network capacity, security, connectivity and access management.

A new national data infrastructure for research would ensure that this critical national need would be met. Jisc, as the UK’s digital research body that operates the unique Janet Network, built-in cyber security and national access and authorisation infrastructure, could coordinate, implement and protect this infrastructure on behalf of universities, research institutions and multi-partner research consortia. The infrastructure would include a flexible set of technological solutions. including cloud and analysis tools, integrated with the seamless and secure movement, management and storage of the ever-increasing volumes of data.

The infrastructure would enable the protection of intellectual property, supporting the UK to maintain the technological leading edge; ‘levelling-up’ across the UK and avoiding inappropriate commercial lock-in. It will offer economies of scale, support innovation and interdisciplinary approaches by consolidating expertise and building capacity, developing existing infrastructures at scale, reducing technical debt in the research ecosystem. The opportunity is there to not only support research with leading-edge technologies, data and digital approaches but save the sector money doing so.

Research teams would no longer need to separately liaise with technology providers to access the best mix of technical and digital components for publicly funded research projects and collaborations, which are costly and inefficient.

Q6a. How should this role vary across sectors and applications?

Alongside strategic investment in the above infrastructure, continued support for the change to an Open Research environment, through funding policy incentives for basic research; support for change to commercial models of research publication using public money in research dissemination; support for change in centralised research assessment to incorporate open research practice.

Q7. To what extent do you agree with the following statement: The government has a role in supporting data foundations in the wider economy. Please explain your answer. If applicable, please indicate what you think the government’s enhanced role should be.

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly Agree

There is an opportunity for Government to enable huge innovation in the use of technology in higher education by supporting universities to develop their use of data-analytics in educational settings. This would be achieved by Government actively supporting common data standards - as referenced in the strategy’s definition of data foundations. Currently, in many university settings, data standards are predominantly defined within the HESA data as well as working with UK funders e.g., Office for Students (OfS) or the Higher Education Funding Council for Wales (HEFCW). However, there are several other data sources which do not use these common standards or structures and do not have the same level of quality assurance underpinning them, resulting in a significant amount of time and effort spent on cleansing the data. Jisc would welcome Government playing a role in enabling us to make this easier for providers and data users. This would deliver significant institutional efficiencies by enabling data to be collected just once and using it in multiple ways (data minimisation), linking between internal systems and external data sources that already use common data standards.

The enhanced level of data analytics delivered by this would in turn improve a provider’s forecasting, business and benchmarking modelling to assist strategic and operational planning and decision making covering all aspects of their core activity from business operations, course planning, research and student success providing colleges and universities the ability to shift from descriptive analytics to
prescriptive and predictive analytics. With the increased reliance and use of technology in education providing a rich digital landscape, a stronger data foundation would enable widespread innovation in the use of advanced technologies in teaching, learning, assessment and deliver sector-wide efficiencies.

Jisc is working with the FE sector to help understand how Jisc and colleges can better enable the use of common data foundations to support learning and teaching. Jisc recently led a data discovery exercise with representatives from FE colleges, a sector that is creating significant quantities of data with real value for, data-based decisions but lack resource to make sense of that data and constantly come up against problems of quality and data integration. Jisc intends to work with a small number of FE providers to understand their problems in this area, provide them with solutions for understanding their data, and create data analytics to help solve issues such connecting curriculum to employability outcomes, student retention and more. Jisc would then take the outcome of this exercise to replicate the solutions for entire UK FE sector, bearing in mind that needs across FE providers in the devolved administrations are often different.

Q8. What could central government do beyond existing schemes to tackle the particular barriers that small and medium-sized enterprises (SMEs) face in using data effectively?

n/a

Q9. Beyond existing Smart Data plans, what, if any, further work do you think should be done to ensure that consumers’ data is put to work for them?

n/a

Mission two: Maintaining a pro-growth and trusted data regime

Q10. How can the UK’s data protection framework remain fit for purpose in an increasingly digital and data driven age?

Jisc has found that the existing framework already permits and provides helpful guidance for every ethical use of data that has been proposed. Even the use of student activity data to provide early warning of wellbeing problems – the subject of Jisc’s ICO sandbox engagement in 2019/20 - can be accommodated. Jisc believe that any significant change would both expose individuals to greater risk and put at risk the flow of data between the UK and EU that is critical to education and research, as well as to many other sectors.

Jisc welcomes the Information Commissioner’s recent detailed guidance on technical areas such as Artificial Intelligence (AI). A similar level of scrutiny of data collection and reuse could allow the UK and its businesses to become trusted global leaders in the safe reuse of data.

Q11. To what extent do you agree with the functions set out for the Centre for Data Ethics and Innovation (CDEI) - AI monitoring, partnership working and piloting and testing potential interventions in the tech landscape? Please explain your answer.

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree
Jisc is a member of the All-Party Parliamentary Group on Data Analytics, run by Policy Connect and as part of that has worked with the CDEI and are keen to continue working with the Centre. However, in order to be more effective, it must lead on functions that can develop into a coherent body of work. Jisc believes CDEI should work more collaboratively with other public sector bodies that help lead and shape digital strategies of key sectors and those involved in the effective sharing and use of data as the National Data Strategy is developed.

**Q11a. How would a change to statutory status support the CDEI to deliver its remit?**

Jisc welcomes the role that CDEI plays in advising government on how the benefits of technologies and data can be maximised.

The CDEI’s requirement to bring people together from across sectors and society to shape practical recommendations for the government, as well as advice for regulators, and industry, that support responsible innovation and help build a strong, trustworthy system of governance, is also welcome.

Jisc believes that the CDEI should work more closely with bodies like the Alan Turing Institute, the Office for Artificial Intelligence and third sector organisations like the ODI and Jisc. A proper coordinating body in Whitehall to bring these groups together would be valuable given the range of issues where data could play a more transformational role in key sectors such as health, policing and education.

**Mission three: Transforming government’s use of data to drive efficiency and improve public services**

**Q12. We have identified five broad areas of work as part of our mission for enabling better use of data across government:**

- Quality, availability and access
- Standards and assurance
- Capability, leadership and culture
- Accountability and productivity
- Ethics and public trust

We want to hear your views on any actions you think will have the biggest impact for transforming government’s use of data.

A key factor in enabling the better use of data to the benefit of learners, the education and research sector, and government, is improving connectivity and linkage between already 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). 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. For example, enabling better use of ULNs 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.

There is a discrepancy in the use of such types of data, in contrast to the inconsistent use of ULNs, the UK Provider Reference Number (UKPRN) is a unique number allocated to providers after successful registration on the UK Register of Learning Providers. The UKPRN is used extensively in education by funding bodies, sector agencies, UCAS, and Government bodies to identify and link data on providers. In higher education applicants and students are issued with a separate identifier by UCAS, HE providers, the Student Loan Company, HESA, professional bodies and others. Because
ULNs are not universally issued, providers and funders cannot rely on them under the current system. The issuing of a ULN to all UK learners and its use beyond secondary and further education should be made mandatory by Government, like the UKPRN. It is as portable, secure and useful as a national insurance number and would deliver long-term benefits to individuals, to Government and to the nation’s future prosperity in an increasingly digital world.

**Learners’ trust in data use**

The long-term delivering of education is likely to include a hybrid model of face to face and blended online learning, teaching and assessment. Recent findings from Jisc’s Digital Experience Insight Survey showed that only 36% of HE students and 37% of FE students surveyed believed their organisation told them how their data was used. Considering the survey also found that both a notable number of students work with data on a weekly or more basis (FE: 35%, HE: 37%) and that almost a quarter of HE students said they never work with data (23%) – it is vital that any long-term strategy for data and the education sector must include plans to increase understanding and trust in how personal data is being accessed, and ensure learners are being provided with the skills to use data confidently.

Jisc set out the opportunity for better use of data to improve educational outcomes, as part of Policy Connect’s Trust, Transparency and Technology report run by the APPG on Data Analytics. The report recommends that data analytics must be employed by the institution for improved educational outcomes as well as for ‘administrative’ purposes if the full benefits are to be realised and an informed balance achieved between privacy and innovation.

Jisc has worked with the National Union of Students on a code of practice for learning analytics, which provides guidance to universities and colleges exploring the use of data analytics to support teaching and learning. The code of practice highlights universities and colleges’ responsibilities to carry out learning analytics responsibly and addresses legal, ethical and logistical issues which are likely to arise. These include making students aware of what data is required and the purpose of learning analytics: to benefit students in their academic journey. Similarly, Jisc worked with universities and colleges as part of the ICO’s Sandbox to create an innovative new code of practice for wellbeing and mental health analytics, investigating the use of student activity data to improve institutions provision of student support services. Data analytics applications have the potential to deliver wide-ranging benefits and support student wellbeing, however, this area also raises complex ethical and legal issues. Jisc’s code will help institutions assess their readiness and understand what they need to have in place to deliver benefits with confidence that they are meeting ethical and legal obligations.

**Q13. The Data Standards Authority is working with a range of public sector and external organisations to create a pipeline of data standards and standard practices that should be adopted. We welcome your views on standards that should be prioritised, building on the standards which have already been recommended.**

n/a

**Mission four: Ensuring the security and resilience of the infrastructure on which data relies**

**Q14. What responsibilities and requirements should be placed on virtual or physical data infrastructure service providers to provide data security, continuity and resilience of service supply?**

Jisc receives grant funding to operate the ultrafast Janet network with its built-in cyber protection that connects the UK’s HE, FE and research sectors. This bespoke National Research and Education Network (NREN) provides the digital backbone of all colleges, universities and research institutions,
allowing for the secure, scalable and cost-effective transport of petabytes of data. Jisc fulfils a role that the market cannot offer at the same cost-value or capability to its university, college and research members, particularly in relation to cyber security provision.

Jisc’s Computer Security and Incidence Response Team (CSIRT) is crucial to the UK’s economic and security interests. CSIRT works closely with the National Cyber Security Centre and other government agencies in the mitigation and protection against cyber-crime. Cyber security remains a persistent threat to Jisc members and can cause significant disruption and financial harm to colleges and universities, for example through Distributed Denial of Service (DDoS) attacks.

The resilience and security of the digital infrastructure in which the personal, business and research data relies on needs ongoing strategic investment via government grant funding in both the short and long term, to continuously upgrade the backbone and regional access components of the Janet network, and simultaneously further develop and strengthen Janet’s cyber security provision to users of the network.

Q14a. How do clients assess the robustness of security protocols when choosing data infrastructure services? How do they ensure that providers are keeping up with those protocols during their contract?

n/a

Q15. Demand for external data storage and processing services is growing. In order to maintain high standards of security and resilience for the infrastructure on which data use relies, what should be the respective roles of government, data service providers, their supply chain and their clients?

Public cloud providers have role to play in the ecosystem of storage platforms, not least because one cannot consider storage without also considering the processing that goes with it. It is not possible to divorce the two because of the costs (both time and money) of moving data from storage platforms to compute platforms and back again. Personal data and information are being increasingly held on devices outside of institutional premises, protecting that information, wherever it exists, has extended existing security challenges.

The security provision that cloud providers supply set the benchmark for others to follow due to the investment in security technology and associated processes that they are and have previously been able to make. The shared responsibility model, a variant of which all the major cloud vendors have adopted, helps to clearly articulate the roles that cloud vendors themselves, end customers and intermediate partners must play in maintaining good security practices around data.

The government has a role to play in setting the legal framework within which cloud providers operate, particularly around privacy, data protection and the issues associated with data crossing jurisdictions and geographic boundaries.

Q16. What are the most important risk factors in managing the security and resilience of the infrastructure on which data use relies? For example, the physical security of sites, the geographic location where data is stored, the diversity and actors in the market and supply chains, or other factors?

Never before has there been such a reliance on strong, protected and resilient infrastructure to ensure the quick, safe and continuous transfer of data enabling the UK’s world leading education and research sectors can operate securely. Please refer to Question 14’s answer on this issue.

Q17. Do you agree that the government should play a greater role in ensuring that data does not negatively contribute to carbon usage? Please explain your answer. If applicable, please indicate how the government can effectively ensure that data does not negatively contribute to carbon usage.
Mission five: Championing the international flow of data

Q18. How can the UK improve on current international transfer mechanisms, while ensuring that the personal data of UK citizens is appropriately safeguarded?

Jisc connects all UK Universities, research institutions, national scale research instruments as well as other facilities of global significance such as the Large Hadron Collider at CERN with global partners. Jisc are currently a member of various European Commission e-infrastructure organisations including GÉANT – the pan-European research network that connects all Jisc members to the rest of the world. This enables Jisc to promote its services and ensure interoperability between networks and its UK university and research members, at an international level. Even in the event of a no deal Brexit, Jisc is committed to retaining Jisc’s membership of GEANT. In addition, Jisc would also expect the ability to transfer data through cloud services from the UK into EU organisations to be covered by contracts, including the EU-approved Standard Contractual Clauses (SCCs).

Q19. What are your views on future UK data adequacy arrangements (e.g. which countries are priorities) and how can the UK work with stakeholders to ensure the best possible outcome for the UK?

For both international and transnational education, China remains the main priority country. During the 2018-19 academic year there were 78,175 UK TNE students with Chinese students at UK HEIs making up 24.8% (120,385) of all international students, an increase of 13% on the previous year. Other priority countries for better access to and use of international student data would be India, Hong Kong, Malaysia and Nigeria. For transnational support, Malaysia and countries in the Middle East, such as the UAE, Bahrain and Qatar would be Jisc’s suggested focus from experience. There is a continuing and expanding challenge in capturing information on and to support international and transnational students. Whilst the UK is at the forefront of capturing such data, there is significant room for improvement to ensure better understanding of the needs of international cohorts and deliver high quality education and student experience.

The UK’s education and research sectors currently don’t have the same levels of data about international students as UK students and the resultant significant gap in data knowledge is of detriment to the UK given their contribution to both society and the economy. The Aggregate Offshore Record (AOR) data collection for students studying wholly outside the UK whilst registered at UK HEIs, collected and stored by HESA, needs refining and extending, and Jisc have fed into the review currently being undertaken of its scope and use. Keeping international student data accurate and secure is pivotal, so a reliable, efficient and secure infrastructure to support the flow of data (including personal data) and access to content for students and staff delivering international and transnational education is critical. As the UK’s NREN provider Jisc can provide this through its own infrastructure and global connections.

Fundamentally, data is needed on where students are, what do they have access to in terms of data and digital, including access to devices and connectivity, in order to address issues of digital poverty as a priority. Collection of data for learning analytics, with further emphasis on health and wellbeing, to ensure remoteness and access to training brings no detriment to their studies. And to develop and enhance a lifelong experience, supporting learning through all stages of any student with individualised records that follow the learner wherever they are in the world at whatever stage in their life. Following on from Jisc’s answer to question 12, better use of ULNs could enable learner
achievements can be tracked across regions, domestic and international borders to support global student mobility through global data portability in line with the UK’s international education strategy.

It is likely that transnational education (TNE) will increase in the medium term as students may decide to stay in their home country, or near to it, for their higher and further education. It is time to address this as a priority, and potentially as an international Data Strategy supported by relevant sector bodies including UKCISA, HESA, UUKI and Jisc. In summary, the UK sector must pay close and urgent attention to supporting international and transnational students through accurate, relevant and timely data.