



Our Digital Ambition for Scotland's Colleges

September 2020

A Digital Ambition for Scotland's College's - Foreword

Colleges Scotland warmly welcomes the publication of the Digital Ambition for the college sector in Scotland. This document was commissioned to provide evidence on the sector's digital intentions for the Scottish Government and other key stakeholders. It will now also be a crucial document in taking forward the required planning for the new digital age emerging given of the uncertainties of the unprecedented COVID-19 crisis.

Whilst our Ambition is focused around digital, it is also people centred and has been developed to meet the needs of learners; both those in the workforce today and those working towards entering the workforce of the future. It aims to ensure that those learners have the opportunity to upskill digitally and reskill to prepare them as best as possible for the new working practices that will emerge through the new digital age. In order to ensure that our learners can take up these upskilling and reskilling opportunities, it is vital that the expansion of digital use in the sector is inclusive and provides equal opportunities for our learners. Therefore, in conjunction with the Scottish Government and its agencies, we must strive to ensure equipment, access and effective connectivity levels are delivered for our learners and staff.

Now, more than ever, a whole system approach to digital is required to ensure our strategic direction is clear; that we understand how to develop, promote and maximise our network infrastructure, systems and data, and to ensure the sector develops and maintains a well understood dynamic curriculum with the skills and pedagogy in place to deliver professional and expert learning and teaching.

We need to ensure the sector's capacity to deliver is both sustainable and resilient. It should allow colleges across Scotland to lead and contribute to strategic partnerships and collaborations to benefit businesses and communities whilst also enhancing opportunities and potential for inclusive economic growth for the country.

The Digital Ambition has been developed and agreed following consultation with hundreds of practitioners from across Scotland and discussions with key partners in digital industry. It is bold and inspirational and we would like to thank the Digital Ambition Short Life Working Group members, including Colleges Scotland, College Development Network, SFC, Jisc and senior professionals in the college sector, for taking the lead in its development.

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Our ambition for Scotland's colleges

Through moving towards this ambition, Scotland's colleges will:

- Encourage innovation and research informed practice to ensure inclusive, accessible approaches and digital pedagogies to enhance the learner's experience
- To seamlessly integrate digital technology into delivery of learning and assessment, and systems to support learning, teaching and assessment
 - Equip learners and staff with the digital capabilities, pedagogy and confidence they will need to succeed in everyday life, in learning and in work
 - Ensure that learners are digitally well educated, skilled and able to contribute to society, in support of the Scottish Government's National Performance Framework

Our digital ambition will deliver the following outcomes for learners in Scotland's colleges

- Be well prepared to participate in a globally competitive, entrepreneurial, inclusive and sustainable economy
- Be able to become a part of thriving and innovative businesses, and take up quality jobs
- Be able to be open, connected and able to make a positive contribution both domestically and internationally
- Be able to overcome disadvantage and the impact of poverty through access to digital technology

What will be important for a great learning experience at Scotland's colleges?

1. Digitally literate academic and support staff that make use of digital approaches to learning, teaching and assessment
2. Flexible options to study while working
3. Flexible study model
4. Close links between employers and college
5. Accessibility for all learners
6. Matching employer requested skills which are relevant to their demands
7. Opportunities for work experience
8. A careful balance between online training and teams-based project learning
9. Staff with up to date industry experience
10. Better provision for use of IT within teaching spaces

Delivering on our ambition, Scotland's colleges will:

1. Lead on flexible, adaptable and personalised technology-enhanced learning to:
 - increase access to education
 - improve attainment
 - increase choice of, and engagement with, lifelong learning.
2. Ensure a high level of resilience in order to ensure the ability to deliver in the context of existing and novel challenges.
3. Facilitate effective technology-enabled partnerships and collaboration as a sector, including with schools, universities, industry and other stakeholders. Making the best use of shared resources (including systems, learning, teaching and assessment materials, experience and expertise) facilitated through technology.
4. Support the development of effective and efficient technology-enabled processes and administration to focus resources on a sustainable education, skills development and learner support by:
 - facilitating effective sector collaboration
 - establishing sector-wide systems and learning resources
 - growing (or enhancing) partnerships and collaboration with schools, industry and stakeholders
 - advocating for a flexible and dynamic funding model.
5. Develop a collaborative national digital skills strategy and framework, in partnership with the Scottish Government, the Scottish Qualifications Authority (SQA), Skills Development Scotland (SDS) and industry bodies to meet the needs of the Scottish economy.

The document is laid out in five key areas:

- 1 Strategy and direction
- 2 Network infrastructure, systems and data
- 3 Learning, Teaching and Assessment
- 4 Capability
- 5 Partnership, collaboration and engagement

Ambition Statements

The following ambition statements offer clear direction as to where the college sector will be looking to enhance its digital activity and examples of the changes which we will see over time, as colleges take forward priority areas to meet the needs of the sector in both the short and long term.

1

Strategy & direction

Scottish colleges . . .

. . . will implement strategies informed by consideration of the opportunities afforded by digital technology for both quality and efficiency.

Change example:

In designing a programme to support workers in a declining industry with reskilling, the approach allows for a personalised curriculum depending on existing skills.

Scottish colleges . . .

. . . will ensure that strategy and policy decisions around the use of digital will be taken collaboratively with input from relevant stakeholders.

Change example:

A college decides to review its unified communications tools and starts with a conversation with students about their experience, expectations and ideas for the future service.

Scottish colleges . . .

. . . will lead in the use of data-driven decision-making to provide the best possible learning opportunities and the efficient and effective pursuit of strategic goals.

Change example:

A college reviewing its computing curriculum makes decisions informed on national and local economic data, cross-sector curriculum data, and demographic and learner journey data.

Scottish colleges . . .

. . . will, where appropriate, adopt shared digital tools, technologies and systems to address common needs.

Change example:

Through professional and industry collaboration, Scotland colleges procure a single learner management system together, with shared technical and practice support and potentially linked into other public body management systems such as SDS and SQA.

Scottish colleges . . .

. . . will use national and international resources to provide digital experience data upon which to base planning and investment decisions, to ensure the most effective and efficient use of technology.

Change example:

A college will review data around staff and student digital experience as part of the review and validate the choice of system in later surveys after adoption.

Scottish colleges . . .

. . . will have a digital strategy which will be informed by understanding of the environmental and sustainability consequences of resource use, reducing negative impact ahead of national targets and leading the way in responsible practice.

Change example:

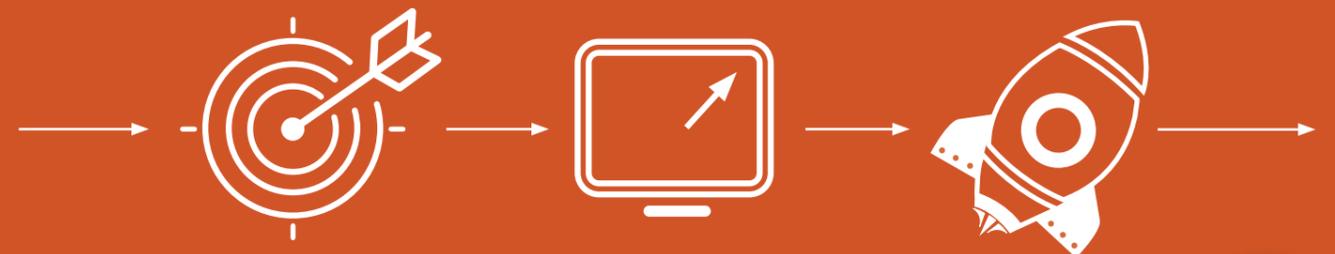
A college looking to invest in a new online learning environment system procures using guidance from APUC and Jisc as to the environmental consequences of the solutions available.

Scottish colleges . . .

. . . will ensure that the design and use of physical campus space allows the best use of digital technology in order to enhance the student's learning experience, and staff's work environment.

Change example:

A college looking to invest in a new online learning environment system procures using guidance from APUC and Jisc as to the environmental consequences of the solutions available.



2 Network infrastructure, systems & data

Scottish colleges . . .

. . . will ensure an appropriately secure infrastructure and cyber secure processes to allow learners, staff and visitors a safe digital environment to make the most of available technology.

Change example:

A college carries out regular reviews of its cybersecurity posture, taking account of Scottish Government and NCSC guidance, and other professional services.

Scottish colleges . . .

. . . will make optimum use of appropriate cloud solutions.

Change example:

When moving to a new CAD tool for engineering students, a college specifies a cloud-based system, improving resilience and security.

Scottish colleges . . .

. . . will make appropriate use of automation in order to reduce administrative burden for both staff and students, and to ensure staff time is most effective in curriculum delivery and student support.

Change example:

A student indicates on a college's app that they wish to change course. An appointment with an advisor is scheduled to suit availability and focuses on the student's motivation for the change and consequences. If the course change proves to be the best choice, the various processes and communications to effect it are done with minimum human intervention.

Scottish colleges . . .

. . . will ensure support for students, staff and visitors using their own device to engage with the college and its provision.

Change example:

A student with a disability enrolls on a sports coaching course. The college's systems are designed to allow her to use her own device, set up according to her preferences, wherever appropriate in her learning.

Scottish colleges . . .

. . . will be able to continue effective business continuity and operation despite the temporary closure of any physical campus, through business continuity planning and remote access to systems.

Change example:

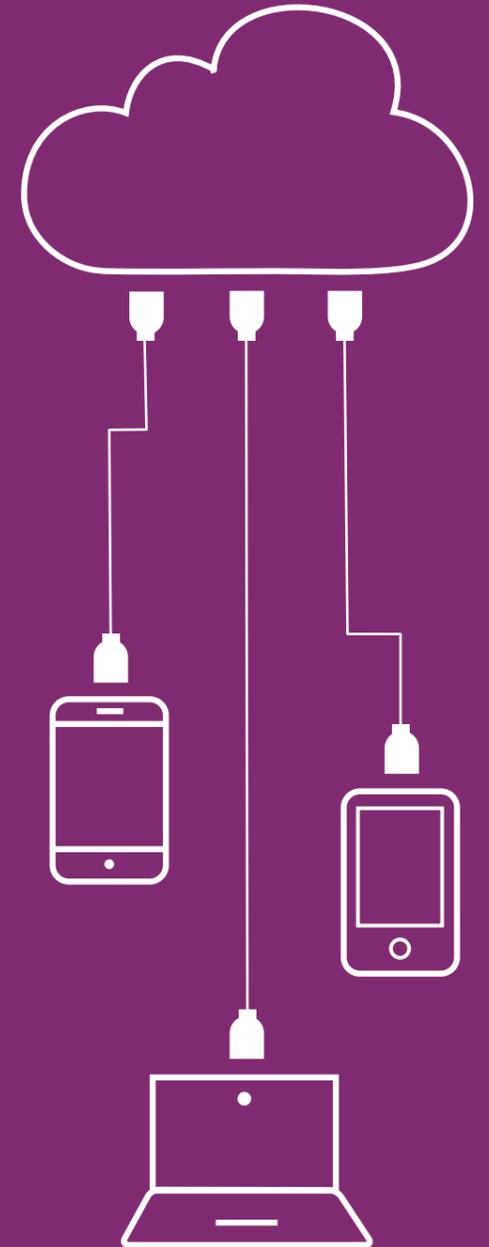
A fire causes extensive damage to a main college campus, leading to a prolonged closure. Use of college systems and online resources is unaffected as remote access is possible, leaving the college to arrange alternative temporary premises, where core 'in-person' work can continue.

Scottish colleges . . .

. . . will work within common data standards shared across the Scottish public sector to enable effective sharing of data and to enable strategic level analytics and business intelligence.

Change example:

Through strategies such as the AI Strategy for Scotland, colleges exchange data on learners seamlessly with schools, other education establishments, qualification providers, funders, bursary and grant providers and other appropriate bodies.



3

Learning, Teaching & Assessment

Scottish colleges . . .

. . . will ensure that all curriculum delivery incorporates digital skills development relevant to the curriculum area, level and depth of study.

Change example:

A college's curriculum review process explicitly considers the opportunities to raise quality and efficiency through introducing VR content to prepare students ahead of workplace experience.

Scottish colleges . . .

. . . will use appropriate tools to assess learners' digital skills on entry to learning, and on completion.

Change example:

At all times during engagement with a college, the student can assess her digital skills development and have this recorded and presentable as a statement of their competence.

Scottish colleges . . .

. . . will use technology to ensure the accessibility of further education in Scotland, and to ensure a variety of ways to engage in learning in order to meet learners' needs and preferences.

Change example:

A visually impaired student entering a college's accounting course finds the learning and teaching material already suitable for use with a screen reader, and with the flexibility to learn in different ways.

Scottish colleges . . .

. . . will collaborate to develop and share high-quality up-to-date learning resources across common curriculum areas.

Change example:

Through the use of collaborative tools, staff across colleges work together to create and maintain high-quality learning resources, with adequate reward and recognition for doing so, and supported by shared production services such as learning design and copyright clearance.

Scottish colleges . . .

. . . will provide a range of physical learning spaces with appropriate technology provision in order to facilitate various modes of learning.

Change example:

A student spending a day at the college will be able to access suitable space for quiet, focussed study; space to collaborate with others on project-based learning; equipment-provided practical skills development; immersive reality space for use of VR and AR.

Scottish colleges . . .

. . . will use analytics to provide feedback to learners on their progress, to identify ways in which the student can be offered appropriate, personalised assistance, and to improve the operation of the college and delivery of curriculum.

Change example:

A student studying at college will receive data-driven guidance on achieving success and accessing support. At the same time, the college will be guided in how best to support that student, and at a course and institutional level, how to support students' learning better.

Scottish colleges . . .

. . . will provide extended-hours support for learners and staff through versatile helpdesks and data-connected AI-based bots.

Change example:

A shift worker engaging in a college's online learning at night is unable to access reading resources through a log-in difficulty. The student's use of an online bot leads to system diagnostics to be triggered, and an automated system reset. This clears the issue.

Scottish colleges . . .

. . . will use technology to give learners a close-to-industry and up-to-date skillset in their curriculum area, making appropriate use of technology-enhanced simulation, collaboration and project-based learning.

Change example:

A student will experience a workplace environment.

Scottish colleges . . .

. . . will promote learners, staff and collaborators having an appropriate level of awareness and responsibility in order to stay secure online, personally and in their dealings with the college.

Change example:

A course in English as a Second Language will include some cyber awareness training at its beginning, and further awareness raising integrated into the course's content.

Scottish colleges . . .

. . . will make use of digital technology to ensure each student receives a personalised learning experience best suited to maximise the student's attainment.

Change example:

A student accessing learning resources will get materials tailored by previous learning and attainment, and by preference as to medium and level of interactivity.

Scottish colleges . . .

. . . will use appropriate digital technologies within curriculum delivery to ensure that students leave college with up-to-date and practical digital skills relevant to their discipline/profession.

Change example:

A student studying a built environment course will leave the course with industry standard and industry leading digital skills usable in a relevant workplace.

Scottish colleges . . .

. . . will work with national agencies to develop effective new solutions for the delivery, marking and verification of digital assessment to create a more robust, agile assessment eco-system.

Change example:

A college works with JISC and SQA to develop an effective digital-first approach to assessment, including assessments, units and full courses which are delivered, marked (including feedback), and verified online. This may include assessment on-demand, and ensures that assessment is for learning at the heart of qualifications.

4

Capability

Scottish colleges . . .

. . . will adopt common minimum standards of digital skills required for key groups of staff, and the resources and support to ensure staff can meet the relevant standard.

Change example:

Teaching staff have an annually updated professional standards statement of required digital skill competence, with appropriate resources for development.

Scottish colleges . . .

. . . will provide high-quality opportunities for staff to improve their digital skills and use these effectively in the college's activities, including across learning, teaching and assessment.

Change example:

Staff members are qualified and certificated in new accredited courses.

Scottish colleges . . .

. . . will share experience and expertise in relation to digital technologies and skills.

Change example:

Using online collaboration tools and conferencing, staff engage frequently in cross-sector sharing of practice, at various levels of speciality.

Scottish colleges . . .

. . . will make high-quality flexible and accessible professional development resources, developed collaboratively, available to all staff.

Change example:

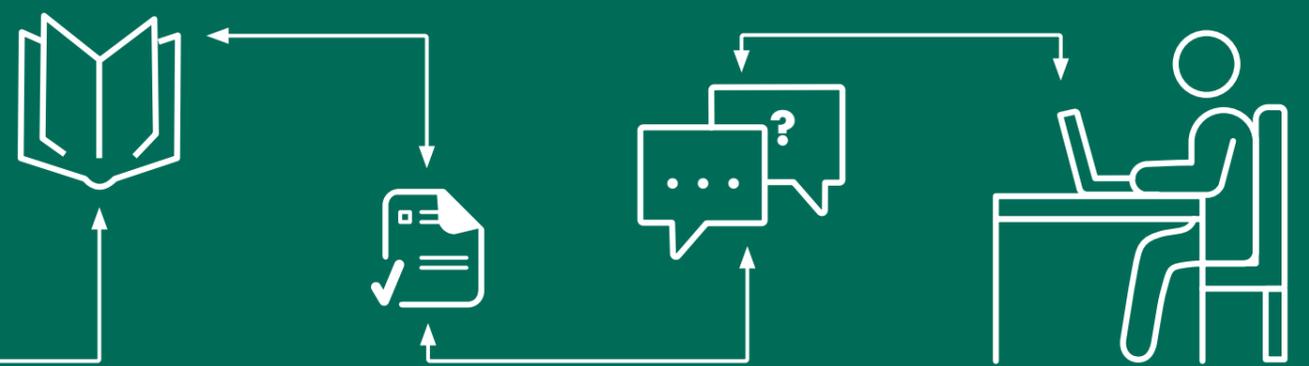
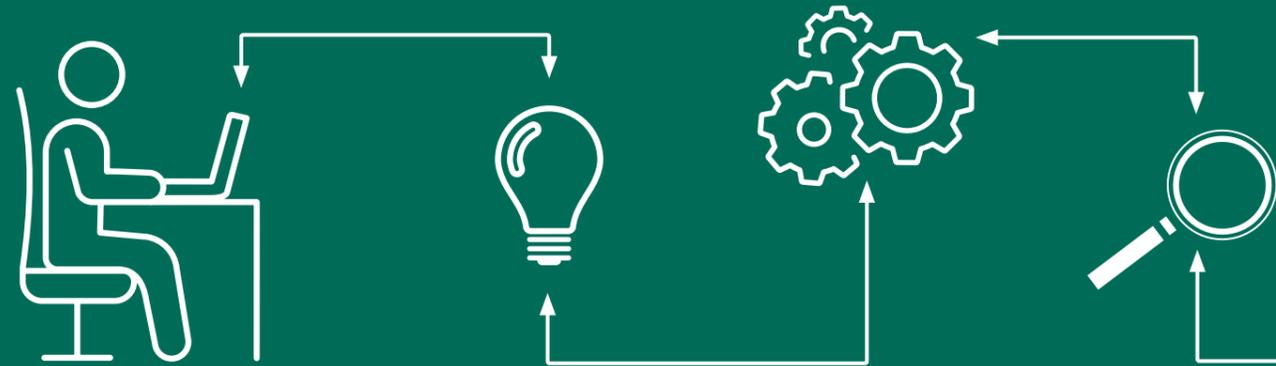
Through a sector-wide platform, a member of staff has access to a range of development materials, some produced in-sector, and others procured on behalf of the sector.

Scottish colleges . . .

. . . will support staff engagement with appropriate College Development Networks in order to promote the development and sharing of best practice within curriculum and support role areas.

Change example:

College staff in engineering are part of a CDN network sharing emerging practice in using simulations of tidal power equipment commissioning.



5

Partnership, collaboration & engagement

Scottish colleges . . .

. . . will lead on offering advanced communication and collaborative tools for effective and efficient partnership working towards their strategic goals.

Change example:

Colleges use a collaboration platform and at desk video conferencing in order to co-ordinate cybersecurity assurance with other Scottish public sector bodies.

Scottish colleges . . .

. . . will deploy digital technology to provide greater opportunity for employers and industry to contribute to the delivery and development of the college's offer.

Change example:

A college maintains an online discussion forum with occasional from-the-desk video conferencing to ensure input from and reporting back to local tourism service employers/suppliers.

Scottish colleges . . .

. . . will provide industry and our communities with the necessary skills and training to support economic and social recovery.

Change example:

Colleges work with industry and community partners to develop bespoke part time programmes which through local labour intelligence will enhance an individual learner's opportunity in their local market and delivered through a blended model of vocational, technical and on-line learning.

Scottish colleges . . .

. . . work in collaboration with national agencies such as SQA, JISC and other partners to lead on the design of innovative new opportunities in digital-first learning, teaching and assessment to create a robust, agile and coherent digital offering.

Change example:

A college works with IT provider and SQA to design a robust assessment which can be delivered securely from remote location across multiple devices, creating greater flexibility and opportunity.



