

Blackpool Digital Education Position Statement

Introduction

Education has had to adapt quickly and creatively since the first lockdown in March 2020, when all schools closed apart from serving the children of keyworkers and vulnerable children. Homeworking for many parents and carers has become the norm and over time schools have drawn on significant government investment and their own resources to provide a meaningful learning experience using devices and internet access as part of the education programmes. Observers have made clear that the country has progressed 5 times faster than the pre-pandemic rate of digital working and learning. Things will never be the same again. It is worth noting, however, that there remain millions of disadvantaged pupils and students without a viable home learning system either due to having no device or suitable broadband access. This is unfortunately still the case in Blackpool.

Blackpool has been subject to various interventions by central government to try and improve the education outcomes in the town. This has resulted in significant investment but has not always been well coordinated and aligned with the town's own ambitions until recently. Blackpool has created a Town Prospectus – 2030 Agenda for Action, which is a strategy for the regeneration of the town. It is seeking a strategic partnership from national government to deliver its social and economic plan. The strategy includes ambitious targets for significant investment supported by a significant 'town grant' from government. Digital is a key aspect of the strategy, with the 2030 Digital Vision launched recently. Last year, Blackpool was connected to America and Europe on the North Atlantic loop, a high capacity ultra-low latency network. This is a unique opportunity for the town. In addition, there is ambition to utilise the world famous tourism opportunities to make them more digitally immersive. In addition, there remains a need to establish better digital capability within the town's current and future businesses, and building on the back of the full fibre roll out currently taking place across the town. It is expected that some will be established in the town as core digital businesses as well as those that draw on digital skills to support their work.

In early 2021, a superfast broadband connection was established from across the Atlantic and this will be extended to the East Coast and then to Europe. This is a unique opportunity for the town. In addition, there is ambition to utilise the world-famous tourism opportunities to make them more digitally immersive. There remains a need to establish better digital capability within the town's current and future businesses. It is expected that some will be established as core digital businesses as well as those that draw on digital skills to support their work.

Currently, many Blackpool businesses feel there is insufficient digital capability within the town's young people, and this sadly sees highly valued and well remunerated appointments being offered to those living outside of the town. There is a significant shortage of high demand digital expertise across the country and places like Blackpool struggle to attract candidates who are drawn to well connected, and more dynamic cities such as Manchester and Leeds. So, Blackpool needs to ensure

that its education system delivers the highest standards so that local businesses can piggy-back off their efforts.

The town's ten-year improvement strategy includes ambitious proposals to establish a digital hub. This is intended to attract local and regional digital entrepreneurs who would, it is hoped, establish a buzz and excitement around all things digital.

There is no shortage of support for the development of STEM expertise including digital. In many respects the high number of agencies, charities and businesses in this area make it difficult for some, particularly schools, to understand how they can successfully connect with each other. This is why a Blackpool Digital Education Summit was held on 4 February to showcase what is available. An important outcome of the Summit was agreement that there was a need for a clearer pathway for developing digital skills and expertise.

Blackpool is fortunate to have individual schools and Colleges at the cutting edge of digital education but there is no clear digital town-wide education pathway for children to progress along. At times, it appears more by good fortune that young people emerge with the digital skills, aptitude and capability to succeed in a digital career.

It appears that the government has at last also got the message that more needs to be done to support schools in this area. They are proposing the introduction of a Quality Review Framework which is to be rolled out 'softly' in September 2021. The communication I have seen says,

'It has become increasingly clear that implementing Computing in schools needs a 'whole school' approach - without support from senior leaders, teachers will not be released for CPD, primary computing coordinators cannot influence colleagues teaching other classes, decisions about timetabling and options in secondary schools limit pupils' opportunities, and so on.

We have just received the green light to develop a Quality Review Framework as part of the NCCE. Set to soft launch in September, this will allow us to scale the successful school support work and provide a mechanism for hubs to tailor their offer to schools. The aim is to develop an online framework that allows schools (SLT and computing leads) to review their computing provision against several dimensions: Leadership and Management, Curriculum, Pedagogy, Resources - the list is not fixed yet.

Descriptors will be produced at five levels for each dimension, from just starting through to excelling. The online framework will set out suggested next steps for the school (to get to the next level) with pointers to the NCCE (and other) resources to help the school progress. At level 4 the school can apply to be awarded a 'Computing Mark'.

Schools may decide to wait for the Framework, but I believe this will take between 12-18 months to be launched and the unique moment we are now in could be wasted. I would urge all school leaders and governors to consider the way ahead for computing in their school, and to do this promptly.

In summary, we need to consider four main issues to help our pupils and students benefit even more from digital technology so that it assists their learning, including making learning more enjoyable and meaningful and enables them to develop their learning when they move on to further study or employment. They are:

- Infrastructure in schools the hardware and software
- EdTech how is technology being used to support teaching and learning across all subjects?

- · Computer science curriculum and subject knowledge of those teaching it.
- Digital business and careers staff and pupils/students understanding these in a local context

This paper is an attempt to open out the discussion to try and create a clearer digital pathway. It is not a template to follow but, I hope, a helpful guide.

Frank Norris

Independent Chair of Blackpool Education Improvement Board

A good step forward

Ok, you've read the introduction and you appreciate the importance of digital education but already you feel confused. Don't worry because you will not be alone in feeling this way. Many other teaching staff and leaders will be feeling the same as you.

This document will hopefully help but if you want to connect with local colleagues who can support you then these are the most useful connections for you. The colleagues listed below are there to support you. They want you to reach out to them, if your school hasn't already.

Kerry L. O. Harrison
Lead for the Lancashire Digital Skills Partnership



The Lancashire Digital Skills Partnership is a trailblazer established in conjunction with the Department for Digital, Culture, Media and Sport. It brings together public, private and charity sector organisations to address digital skills needs of the county working across four themes:

- Future Workforce helping young people to understand the importance of digital skills in all jobs and the array of interesting careers choices requiring specialist digital skills and how those careers can happen in a Lancashire business.
- Skilled and Productive Workforce helping local businesses to develop their digital skills to improve productivity and helping organisations needing tech talent to narrow the digital skills gap.
- Inclusive Workforce helping Lancashire residents to gain the digital skills they need for work and life alongside addressing the issue of digital poverty.
- Informed Approach ensuring an evidence base exists to determine all activity

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Sarah Myers Regional Network Lead for STEM Learning



Providing strategic support for STEM and Computing in primary and secondary schools across England, through resources, CPD opportunities, access to STEM Ambassador volunteer and enrichment opportunities.

STEM Learning is a partner in the National Centre for Computing Education (NCCE), through this programme Blackpool schools can access:

- Funded consultancy to audit **computing provision in your primary school** and support with creating an action plan for development and improvement.
- Bursary supported CPD for all levels of **primary computing teaching** from starting out to leading computing across a whole school.
- Bursary funded CPD to upskill **secondary teachers** to teach GCSE Computer Science via the Computer Science Accelerator (CSA) programme.
- Funded consultancy to audit **computing provision in secondary schools** and support creation of an action plan to develop and improve.

Contact details: s.myers@stem.org.uk / 07718 191 115





STEM Ambassador Hub Lancashire and Cumbria

STEMFirst is a Science, Technology, Engineering and Maths (STEM) Consultancy passionate about the wonderful world of STEM.

Everything we do is based around creating links between STEM Employers, STEM organisations , young people and their influencers. Our consultancy works with a huge range of partners acting as an expert consultant providing advice and support in the field of STEM outreach and educational engagement.

We offer:

FREE Advice and support to schools/teachers/STEM volunteers

Networking and training opportunities for Employers and Educationalists

Design and delivery of bespoke STEM Programmes

STEMFirst 'join the dots' on STEM outreach and are proud to have won the Women in Science and Engineering (WISE) Awards for STEM Outreach.

STEM Ambassadors

The STEM Ambassador Programme is a central Government funded programme, co-ordinated nationally by STEM Learning. There are over 38,000 STEM Ambassadors nationally who love Science, Technology, Engineering and Maths!

STEMFirst has been the STEM Ambassador Hub in Lancashire and latterly Cumbria since 2011 and recruits, trains and deploys 1800 STEM Ambassador volunteers across the North West. Our hub is seen as one of the most active Hubs in the UK, and we are proud of our amazing volunteers and the opportunities we have had the privilege to be involved in.

STEM Ambassadors are the golden thread that runs through many of the STEM Engagement in the UK. STEM Ambassadors are passionate about reaching out to support young people and teachers, and are a valuable FREE resource that schools, youth clubs and community groups can access. The UK has a STEM Skills gap, we do not have enough young people choosing to progress into STEM Careers. It is all of our responsibilities to help raise awareness of Science, Technology, Engineering and Maths opportunities and would love to hear form you if you would like to get involved.

To find out more and sign up to be a STEM Ambassador or, to find out how to access our volunteers, then go to www.stem.org.uk or contact us directly.

Consultancy

STEMFirst offers consultancy services to both the private and public sector. We have worked with major employers, professional institutions, Educationalists and Local and National Government and have designed and delivered STEM programmes for a range of partners including; Lake District National Parks, BAE Systems, Ministry of Defence, Siemens, the BBC, Leyland Trucks(PACCAR Group),

Southampton University, University Central Lancashire and have recently trained over 500 Primary Teachers to use our newly developed Engineering Fairy tales resource.

If you would like to find out how we can help your organisation engage more in STEM, increase diversity in your STEM workplace or create a bespoke offer then we would love to work with you. Please contact Helen Heggie directly: Helen Heggie, Director,

STEMFirst helen.heggie@stemfirst.com Twitter: @STEMFirst Web: www.stemfirst.com

Mob: 07808 646 493

These colleagues will help you determine what a decent outcome might be for your school in terms of digital education over say the first term, the first year and over the medium term. This document cannot do this because all schools are at different stages of awareness and development.



What is digital technology?

Finding a clear definition of digital technology is hard. Most dictionaries keep the explanation short and emphasise the use of the digits zero and one to transfer information. At its heart this is correct, but this isn't good enough for capturing the transformational power of digital technology. For this, it is important to view digital 'less as a thing and more of a way of doing things.' Clearly, digital technology requires knowledge and skills to create, enhance and benefit from it, but to successfully engage with it, and improve it, there is a need to have specific attitudes and behaviours or even a digital mindset.

In education, it is probably true to say that many pupils are unlikely to stumble across the knowledge, skills, attitudes and behaviours to be successful in the world of digital technology unless their teachers enable this to happen. This is why, all Blackpool teaching staff need to be more familiar with the benefits of digital technology and better understand why it is going to have a massive impact on their pupils' lives and therefore their future employment opportunities.



What are digital skills?

Digital skills are defined as a range of abilities to use digital devices, communication applications, and networks to access and manage information. They enable people to create and share digital content, communicate and collaborate, and solve problems for effective and creative self-fulfilment in life, learning, work, and social activities at large.

Early-level digital skills, meaning the basic skills required to make use of digital devices and online applications, are widely considered an important element of a new set of literacy skills in the digital era, with traditional reading, writing, and numeracy skills. Digital skills figures prominently in Blackpool's ten year strategy for education.

Higher levels of digital skills allow users to make use of digital technologies in empowering and transformative ways. Major digital transformations such as Artificial Intelligence (AI), machine learning, big data analytics, change skills requirements and, in turn, impact capacity building and skills development for the 21st century digital economy.

To thrive in the future connected economy and society, digital skills must align with other abilities such as strong literacy and numeracy skills, critical and innovative thinking, complex problem solving, an ability to collaborate and co-operate, and socio-emotional skills.

It is important to stress here that digital skills are far from just being about coding. If this is the mindset of a teacher then it excludes the vast majority of their pupils from benefiting and contributing to the future of digital technology.

Why is it important for children and young people to have confidence in using and applying digital technology?

The Digital Age is here, permeating through every aspect of our lives, and it is going to stay for a very long time. Those comfortable with using technology are at a higher advantage than those who are not. Why? The Digital Age demands a "digital" mindset; therefore, the "digitally savvy" are much better placed to develop a "digital" mindset significantly faster. A digital mindset is not merely the ability to use technology. Rather, it is a set of attitudes and behaviours that enable people and organizations to identify possibilities, to find solutions and to make improvements. Social Media, Big Data, Mobility, Cloud, AI and Robotics are some of the big digital forces that are disrupting and deconstructing the world today, permeating every aspect of life and business. They are bringing people of the world together and it is important that young people understand the opportunities, challenges and threats that this can pose. This is why digital is important for all teachers in every lesson.



The Scottish government produced a few snappy videos in 2018 explaining why digital technology was important. These videos capture the challenge and the opportunities for society and our children in the future. They are useful in trying to engage senior leaders, other staff, governors and parents. They don't provide answers but lay out a different future for our children.

(1) Future jobs and industry: responding to the speed of change - YouTube

Skills 4.0: Thriving in the future - YouTube

<u>Developing Metaskills - YouTube</u>

Why is now a good time to create an education digital pathway in Blackpool?

Things are moving in the right direction and there is real momentum in Blackpool schools and Colleges. Concerted effort, honest discussion and challenging expectations have changed the education landscape in the town. Blackpool is now in a position of strength, where it can build upon the networks that have been formed and the combined expertise that a school-led system has brought.

Blackpool is one of only a few towns in the country with a ten-year education strategy. It is called 'Strategy 2020-2030' and was conceived prior to the pandemic but was agreed during it. The strategy looks beyond the current challenges to ensure children and young people and their families and carers play their full part in realising the town's ambitious plans for the future. The development of digital skills and aptitude is a key element of the plan.

Blackpool's children deserve the highest quality education. They deserve quality teaching, innovative curriculum delivery and caring, responsive pastoral care. If they receive these, they will have real, tangible opportunities to become a vital part of Blackpool's resurgence as a town and to become the drivers of change. Collectively or individually, they must bring their valuable skills to the workplace, building solid foundations for future generations.

The education strategy highlights the need to focus on improving outcomes at all ages and phases, so children thrive and achieve their potential in adulthood. The journey starts with the family and with pre-school settings. It continues through school, then college and into the world of training and work. The strategy emphasises the need for all to play their part in supporting and helping children and families to flourish. It is through collaborative endeavour that will make the difference.

The strategy focuses on the most important areas. These are

- Improving outcomes by addressing standards of literacy, including digital literacy
- Promoting inclusive practice
- Using a place-based approach
- Joining up the different programmes and funding streams

But, we need to improve teacher expertise in digital technology

Pedagogical knowledge is what we know about teaching and learning.

Content knowledge is what we know, as teachers, about our subject specialisms.

Technological knowledge is what we know about technology that can support the work of teachers and the processes involved in learning.

Much emphasis has been placed on pedagogical and content knowledge in recent years and much less on technological knowledge. This isn't a criticism because all three are needed to fully utilise and extend outcomes for the pupils and students, but technological knowledge is often thought of as an add-on and an afterthought.

The significant investment in devices and internet access as a means of reducing the negative impact of the home-schooling experience during the pandemic has resulted in many teachers developing technological expertise on the hoof. They have adopted and then adapted as they gauge the effectiveness of their approaches. But 'you don't know what you don't know', and so, when looking to develop a town-wide education digital strategy, it is important to encourage time and therefore resources to the professional development of all teaching staff in technological developments and capabilities. Prior to the pandemic many experts suggested 'you cannot purchase a lot of technology and just expect teachers to get on with it'. But, this is precisely what did happen. We now need to commit to giving teaching staff time to consider what they have learned about digital learning and the chance to share their experiences and approaches with others.

It is worth pointing out that Blackpool has a number of excellent schools that have utilised technology to integrate and support learning. If your school is trying to work out a way forward it is always useful to ask someone who has been down that road. Rather than list individual schools here it is worth contacting the Blackpool Education Director at the local authority or just ask around to find out where those schools are.



Evaluating what worked, and what didn't

Teaching staff will probably need assistance in identifying areas of possible impact as they discuss the approaches they adopted during the home-schooling period. These will include both qualitative and quantitative improvements and impacts. There are a variety of key things they could look for:

- Time saving
- Cost saving
- Supporting and enhancing learning
- Ease of use
- Ease of sharing
- Consistency of approach

Using technology itself, as shown through many research papers, does not automatically improve academic results or improve attitudes to learning. The benefits you find are often subtle and require the right attitudes to learning from students and uses of technology by teachers. Therefore, careful thinking about how to implement technology into a specific phase, subject area or topic is important to consider.

Commitment

Teachers need to be given time to:

- reflect on their distance teaching and have the opportunity to share these experiences with others
- consider the qualitative and quantitative outcomes
- consider whether changes in teaching and learning approaches are needed to improve student and pupil outcomes further
- reflect on the national curriculum expectations and whether there needs to be adaptations to what the school currently offers and expectations of pupils
- identify what they think should happen next



How deep an understanding do schools have of digital careers and opportunities?

Before we consider what is in the National Curriculum regarding computing, it is worth considering how well the school understands the skills, knowledge and understanding of computing required by local, regional, national and international businesses. It is also necessary to understand the **actual** skills, knowledge and understanding of current pupils and staff in the school. It is likely that some will have a strong awareness but there may be some with a lack of awareness. This is important because the following national curriculum requirements only make complete sense if they can be seen in the context of how useful they are for a child's future life chances, including their ability to develop an understanding of technology in the future.

It is clear, that many children currently in school are on an uncertain journey in terms of technological advancement. Their leisure interests, hobbies and everyday lives will be inextricably linked to technology but so will their future jobs and careers. This is crucially important for the future of Blackpool because the town's Strategic vision for 2030 relies on digital capability. If we are to see Blackpool children securing future employment in the town and helping to create a bright future, we need to ensure all are prepared, skilled and willing to play their part. So, it is worth reviewing the awareness levels of staff and consider how well they understand the current roles in a business that use digital skills to improve its performance (any major company) or a digital business that has been created to create and improve digital capability (Google etc).

Regardless of current awareness levels it is important to enable children from the earliest age to understand what digital roles currently exist, what they involve and who fills those roles. Many

existing roles include titles such as UX Designer, Director of Conversion Rate Optimization, Ecommerce Digital Strategist, SEO Specialist, email marketing manager, Lead manager, Blogger, Marketing technologist, content strategist, organic social media manager and I've not even mentioned a host of programming roles. Schools need to enable their pupils and students to hear from colleagues engaged in these roles so that they can have a better understanding of the skills and talents they have and how much creativity and fun is involved in the digital industry.

We are fortunate in Blackpool to have access to **The Fylde Coast Responsible Business Network (RBN)**. This network was created to mobilise the Private Sector to work collaboratively and be a force for good in their local communities. It supports some of the Pride of Place objectives, such as raising the outcomes in Education on the Fylde Coast to ensure that young people in the future are more resilient, skilled and employable. It also supports those farthest from the world of work, back into employment and most recently improving the resilience of the Fylde Coast workforce.

Over the last three years the RBNs collaboration with the Careers Hub has been vital in increased and sustained benchmark achievement, particularly and most recently, Benchmark 5 (employer encounters) and Benchmark 6 (workplace visits) of the Gatsby Framework.

By connecting local schools and colleges with business, the RBN supports students' understanding of digital skills and digital technology in the workplace. Employers working in this space can help demystify what actual roles are in the digital sector and explain the often-confusing job titles.

Another project the RBN has supported is the 'Start in Lancashire' careers platform. During the initial lockdown in 2020, RBN approached businesses and collaborated to produce Work Experience Insights, a form of virtual work experience consisting of video content and tasks or challenges put together to help students gain a better understanding of the world of work remotely. Inspirational interviews with local employers have also been conducted to explain their own career journeys and pathways to where they are now. There is opportunity for this platform to assist in myth busting what careers are available in the digital sector and showcase how employers use digital skills and technology in their own organisation.

Using the contacts from both our Pride of Place Board members and other business organisations that we collaborate with, such as the Blackpool Business Leadership Group and Blackpool Unlimited, plus national contacts we have through Business in the Community and our B&B Alumnus, we can source speakers for events such as Cyber Girls First and DigiStem. If you want to know more you should contact Michelle.walker@bitc.org.uk

Commitment

Teachers need to be given time to:

- how well they understand the skills, knowledge and attributes required to be successful in a digital work environment
- how their school can improve the connections it has with digital businesses and those who work in them
- how their school can connect with a local Blackpool business that has a digital dependency (nearly all, by the way) and how employees can share their working experience
- consider how pupils and students can hear from digital employees, such as though the RBN, as to how they found themselves in a digital working environment and what it is like?



Leadership of computing across the school

This year, we have seen COVID-19 redefine, as if overnight, the way schools have had to deliver learning to their children, with a different emphasis on remote learning and maintaining effective communication with both peers and students. In addition, many schools have benefited from significant IT investment from the government in terms of devices and connectivity for pupils and students. This helpful support now requires a reconsideration of the future direction of the school in terms of computing. A few schools will now have all pupils and students with devices, and these are fully integrated into the learning experience but sadly many schools will not have reached this level of saturation, so a few decisions need to be made for the future. Largely, do we carry on as we are, or do we try to get to a position where all pupils and students have full access and consider how this will change learning in all classes? Whatever route is chosen, consideration needs to be given to a sensible replacement strategy. The great investment in devices by government (and possibly schools as well) in the past year will mean that these devices will become obsolete at about the same time! Oh, no!

Add to this that, last year saw a focus on protecting personal data (GDPR), as well as an ever-growing eye towards deploying Cloud-based technologies. Some have seen a more cautious approach to the Cloud and question the need to shift all data away from the local enterprise, but no matter what the driver, it only further validates the need to have a strategy in place. With staff costs accounting for typically 75-85% of a school's operational costs, it's no surprise that workload, retention and wellbeing continue to be a core concern for senior leaders, and the deployment of effective (and proven) solutions to reduce workload, help towards staff retention and, of course, support outstanding teaching practice, are never more important.

Net Support Software offer an interesting point 'With the advent of Covid-19 and a different way of working, it brings back into question the rationale for replacing individual devices for teachers (laptops, typically) with front of-class PCs. Some schools have taken this approach to reduce IT costs and ensure a classroom is always operational from an IT perspective, but it leaves the onus on staff to have their own tech to use at home – and, as we have seen recently, that's not always viable or reasonable to expect. Staff having 1:1 devices makes a lot more sense in this new fluid and mobile world'

It is easy to assume that much needs to be done and therefore schools are best to crack on with things straightaway. But, it's fair to state that better long-term decisions are agreed when everyone is aware of where they are heading. If the school does not have a digital strategy then it is important to consider who needs to get involved? It might be tempting to identify one individual who is most able/enthusiastic to drive it forward, but it's important to ensure the strategy won't derail if they leave the school, so having more than one lead is a sensible approach. It is also useful to have some

external technical oversight so perhaps approaching a local Blackpool business to see if they would be willing to join the journey of development. The strategy might need to include the following issues:

- Leadership ensure all teaching staff have IT skills at a level to support implementation and are supportive of the journey
- Leadership/Teachers make sure leadership are on a shared journey with teachers by ensuring they know how to use edtech to support teaching and learning too.
- IT Management ensure a robust infrastructure is in place, secure and safeguard data
- Development develop a structured training programme for staff.
- Finance review current technology platforms and secure budget allocations for the next 5 years.
- Teachers research potential new technology platforms that facilitate both local and remote learning (ensure teaching and learning is at a capacity where adding digital solutions will enhance rather than impede)

Some possible Barriers

Other than budget and how that might impact the timeline for delivering a digital strategy, the biggest single barrier to successful implementation will be lack of 'buy-in' from staff of time allocated to execute it. This can partially be overcome by clear co-production of the strategy alongside its communication and vision, thereby setting a reasonable level of expectation for staff. Also, factoring in sufficient CPD time to familiarise and gain confidence will ensure equality of access to technology for teachers.

Leaders need to be given time to:

- how effective and relevant the school's digital strategy is
- establishing a digital strategy, if one doesn't currently exist
- how best to get everyone committed to the digital strategy and underlying approaches
- how best to secure sufficient finance to implement and maintain the digital strategy
- who is best to lead the work and who can support them
- how to engage external digital; expertise drawn from a local digital business



Governors and Trustees

Much of the leadership outlined above impacts directly on the strategic direction of a school and as such governors and trustees must be an integral part of the formulation of the digital strategy.

Within the remit of governance, the starting point for consideration is to understand whether the school has a digital strategy or, in other words, has the school considered (where appropriate) how technology can be most effectively used; what technologies aren't, but could be used; why specific digital approaches/devices have been adopted; and what the leadership plans for the next few years are – from a curriculum, management and financial perspective.

Technology plays a number of roles within a school. We can start with the obvious role it can play in supporting outstanding teaching and learning. We can also consider its potential role in reducing teacher workload and overall operational costs, delivering better internal and external communication, providing digital safeguarding in line with KCSIE and Prevent Duty obligations, and tighter management of the existing IT infrastructure.

Questions to consider:

- How many PCs and tablets do we have in the school?
- How often are they used each day?
- Is there sufficient protection for these devices, if needed, such as with tablets?
- Do we need to have a specific insurance policy for this equipment?
- How do we know they are all used regularly and, if not, should they be deployed somewhere else where there is a greater need?
- Should we buy more kit if we don't know how effectively the current kit is used?
- Have we reviewed how specific solutions could be deployed to reduce teachers' workload or improve visibility of student data? If so, how did we do that?
- What is our refresh plan, i.e. how often is our current technology renewed or replaced?
- We know budgets are tight, but do we set aside or plan within our finances for a renewal programme?
- What is our current provision for online learning?
- How do we measure its use and effectiveness?

Governors and Trustees have a role to challenge plans and progress so that equitable approaches are adopted by asking simple questions, such as:

- Is it accessible for all students?
- What about those who don't have equal access to technology?
- How do we maintain appropriate levels of communication with different cohorts of children remotely?
- How do we ensure our staff are able to collaborate and communicate effectively with both peers and students?
- How do we mix learning when students are live learning at the same time as the teacher with when students are learning remotely without live teacher input?
- Have we considered how we support and manage both staff and student wellbeing when working remotely?
- Typically, the reasons why existing edtech isn't used in the classroom regularly or effectively is either due to lack of relevant teacher training (so they lack confidence using the technology) or insufficient planning in updating the school's infrastructure (so the technology is unstable, unreliable or inconsistent).

The most effective digital strategy is one where all relevant stakeholders have been involved in defining the digital vision for the school. It ultimately should be led by teachers and shaped by the school development plan. Within that, a governor or trustee with relevant education or technology experience could and should be part of that discussion to support, challenge and ensure the broadest possible approaches are considered. Initially, front-line teachers, middle leaders and SLT should be considering how appropriate technology can be used to improve teaching and learning, its impact on outcomes and, ideally, its potential to reduce teacher workload.

Governors need to be given time to consider:

- how effective and relevant the school's digital strategy is
- whether a digital strategy needs to be developed and how this impacts on the school overall strategic plan/direction,
- how are governors/trustees going to support the strategy bearing in mind teaching staff and leaders will implement and report on progress
- how governors and trustees can support the engagement of external digital expertise drawn from local digital businesses

Digital can open up opportunities for all, particularly for those with SEND and those poorly represented in digital industries

Digital technologies have the potential to enhance the learning experience for all pupils but particularly for those with SEND, when used appropriately. Understanding how to create accessible resources or being able to signpost learners to guides on how to change their own device to support their learning needs can really make a difference. This poster provides a summary of some of the simpler adaptations that teachers can consider with links to viable and cost-free solutions.

Make Technology Work for You poster FINAL.pdf (excellencegateway.org.uk)

We know that the proportion of females working in the digital world is low and it is vitally important we address this. Blackpool is working with InnovateHer to encourage more girls to consider career paths that lead to employment in digital industries. It is vital that we do not convince pupils and ourselves that the industry only requires coding skills. This is totally wrong! You can find out more about the work of InnovateHer at

www.innovateHer.co.uk

How does this digital development link to Blackpool's ambitious plans for the next 10 years?

The town recently brought together representatives from across the town to consider what needed to happen to make Blackpool a thriving place in the future. They summarised their thoughts in this town-wide strategy for growth and development.

Riding the digital wave to economic and social prosperity

We are Blackpool and the Fylde Coast.

An icon of the world and the UK's capital of enjoyment

We are Strictly.

We are Tourism.

We are Festivals.

We are the home of variety and entertainment.

We are fish and chips.

We are fresh air and fun.

We gave the world a Tower.

And 135 years after electric trams-we continue to innovate.

We are Silicon Sands.

And we are connected.

We are unique.

We are ready!



Connectivity and infrastructure

Connectivity has always driven prosperity. Trains and trams brought huge numbers of people into Blackpool and over 18million visitors still come today!

The connectivity of the industrial revolution became the life blood that fuelled Blackpool to prosper. Today, the industrial revolution has been replaced by digital transformation and Blackpool is at the forefront of digital connectivity. The arteries of our internet are built with fibre optics and when it comes to fibre, Blackpool has it all.

Whether it is Gigabit local connectivity to homes and businesses, or split-second connectivity across the Atlantic, Blackpool is the place for business. The local and international fibre backbones have made Blackpool a major node on the North Atlantic Loop, a high-capacity ultra-low latency network which connects America to Europe. It connects hyperscale data centres -used by the world's largest internet companies-to Blackpool and boasts round trip data speeds of around 60milleseconds to New York, offering affordable transatlantic connections with speed and capacity that surpasses London.

Local fibre runs the full length of the Fylde Coast, from Starr Gate to Fleetwood, connecting both the Blackpool Airport and Hillhouse Enterprise Zones. Both harness renewable energy sources for power, feeding into our 2030 carbon-neutral commitment. Free public Wi-Fi along the full length of the tramway provides Blackpool with its smart promenade capabilities and 5G coverage in Blackpool grows by the day. Blackpool digital's infrastructure is ready to serve.

Digital communities and digital citizens

We truly want a better Blackpool for its people and businesses, and we will help deliver that by maximising the opportunity presented by this new and essential digital infrastructure. We want all residents and businesses to have affordable high-speed internet access, so citizens and businesses can participate in the global network of information. We will ensure a digital democracy, where politicians are more accessible to the electorate. All voices should be heard, and communities empowered and connected, working together to solve local issues. Our digital inclusivity will transform communities and create a vibrant and well-resourced Civil Society. We will aim to level up our communities and improve outcomes for citizens through digital literacy and inclusion —no one will be left behind. There will be access to devices, training, and connectivity for every citizen. Together we are working to reduce digital poverty and inequality.

Digital skills Education and learning are lifelong processes

Literacy is the active ingredient in an empowered and prosperous democracy. It has given individuals the tools for empowerment, regardless of age or socio-economic background. In order for individuals to have the same empowerment and prosperity opportunities in the 21st century, digital literacy is an essential life skill. We will cultivate a thriving digital business community, with an ecosystem for tech skills and a pipeline of talent that encourages investors. We will grow, nurture and retain our talent. Through primary and secondary, we will equip all young people with the right digital skills to prosper. We will inspire them to be digitally competent, so they are equipped for employment and entrepreneurship in a digital world. Employers will have one of the highest digitally skilled workforces in the north of England and access to a pipeline of qualifying digital professionals. We will end the digital brain drain as newly qualified professionals remain —and return -to work and build their businesses. Our citizens will be both digitally enabled and digitally literate, even in the most challenged neighbourhoods. No one will be left behind.

Business Silicon Sands is where speed and connectivity meet the essence of Blackpoolentrepreneurial spirit. At the heart of the ultra-high-speed transatlantic data cable connecting New York, the U.K. and Northern Europe is Blackpool, which can connect you to New York 10 milliseconds faster than London. The cable presents an ideal opportunity for businesses to both establish and relocate to Blackpool to take advantage of the ultra-high-speed connectivity. Data centres, fintech, electronic gaming and shared business services are all opportunities to be discovered. The consolidation of a civil service hub in Blackpool will be more operationally and cost effective—and with lower overheads and living costs It makes Blackpool an ideal location for a northern civil service hub. Building on an ecosystem of 'meet-ups' and mentoring, our Hub will build a community that nurtures talent and innovation for tech. We will Start-up and Scale Up, Incubate and Collaborate. Talent and ideas will be fed into bigger digital businesses, giving opportunity to capitalise on the opportunity and grow. For digital entrepreneurs, we will seek to develop access to capital, provide space and infrastructure, and find appropriate networks to grow your business. With an engaged youth and a talented generation emerging, job opportunities will be there for people to aspire to.

Tourism & Hospitality

We will embrace technology to deliver a world-class digital offer. Heritage and innovation will meet to create a unique world-class experience! England's best fresh air is free to all. Our Smart Promenade means that families can expect cleanliness and creative ways to be entertained and have fun. Data will drive incredible guest experience We will develop a connected and improved guest experience through shared data in a Resort App, which will start to link things together. It will complement the Resort Pass and make the best of residents' and visitors' time.

Tourism will thrive through the new Conference Centre as emerging markets of entertainment such as E-Sports take advantage of space, connectivity and low latency, in order to compete nationally and internationally.

Health

With the best fresh air, golden sands and blue flag beaches, our Smart Promenade is the best medicine for health and wellbeing. The health of our citizens matters! Through the Internet of Things, we will digitally activate citizens, promoting and driving wellbeing along the coast. Inclusion will enable literacy and advocacy. We will collaborate and secure our data, so we can share it anonymously, in order to improve services and outcomes. We will shift culture and mindset away from health only being thought of as when you are poorly-we will promote wellbeing. We will encourage knowledge, skills and learning, to ensure that digital activation and health literacy is not a barrier. We will aim to make this simple. We will empower all citizens to improve their mental health.



Summary

Thank you for reading this document. If you know what to do then just get on with it!

If you don't, then return to the 'A good step forward' section and contact one of the colleagues listed. They will help you work through what needs to happen next.

Good luck!

ANNEX A

What are the National Curriculum requirements and expectations?

To assist in this process, I am grateful to Sarah Myers, Regional Lead for STEM Learning, for granting permission to share a summary of the IT national curriculum developed by Sam Jackson, Lancashire Computing Hub Lead. This also includes indications of activities that work well in delivery.

Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. It all has a place in other aspects of the curriculum and is increasingly central to art, physical education and music.

The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content.

Computing also ensures pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

The computing national curriculum has 4 key aims, and these aims are addressed at each key stage (KS1, KS2, KS3, KS4):

Aims:

The national curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve problems
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Are responsible, competent, confident and creative users of information and communication technology

Key Stage 1

- Pupils should be taught:
- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school

Use technology safely and respectfully, keeping personal information private: identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

So what does this look like?



PDA Reception @PDA_Rec · Nov 21, 2019

Today we have used all the skills we have learnt over the past few weeks to create pictures of a house 🏠 we had to use shapes, different colours and brushes to create our amazing pictures...#pdaeyfs #pdacomputing





PDA Y1 @PDA_Y1 · Jan 28

Today we have learnt that 'tinkering' means changing something to see what happens. We had great fun finding out how to use Bee-Bots and then we gave our partners instructions to follow! #pdacomputing



Other examples include:

- •Computing systems and networks Technology around us, IT around us
- •Creating media Digital painting, Digital photography
- •Creating media Digital writing, Making music
- •Data and information Grouping data, Pictograms
- •Programming Moving a robot, Introduction to animation, Robot Algorithms, An introduction to quizzes

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms
 of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

So what does this look like?





Other examples include:

Computer systems and networks – Connecting computers, The Internet, Sharing information, Communication,

Creating media – Animation, Audio editing, Photo editing, 3D modelling
Creating media – Desktop publishing, Vector drawing, Video editing, Web page creation
Data and information – Branching Databases, Data logging, Flat file databases, Spreadsheets
Programming – Sequencing in music, Events and actions, Repetition in shapes, Repetition in games,
Selection in physical computing, Selectin in Quizzes, Variables in games, Sensing

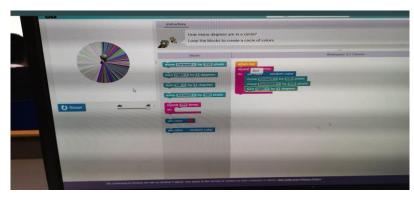
Key Stage 3

Pupils should be taught:

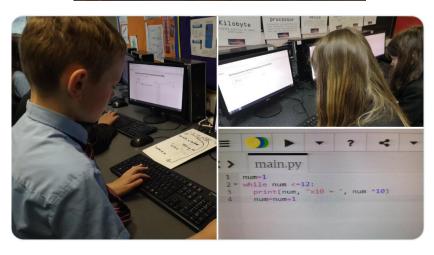
- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
- understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem
- use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions
- understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]
- understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems
- understand how instructions are stored and executed within a computer system;
 understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits

- undertake creative projects that involve selecting, using, and combining multiple
 applications, preferably across a range of devices, to achieve challenging goals, including
 collecting and analysing data and meeting the needs of known users
- create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
- understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns

So, what does this look like?







Other examples include:

Impact of technology – Collaborating online respectfully

Modelling data - Spreadsheets

Networks

Programming essentials in Scratch

Using media

Computing in systems

Developing for the web

Introduction to Python programming

Media – vector graphics

Mobile app development

Cyber security

Data science

Media – Animations

Physical Computing

Python programming with sequences of data

Key Stage 4

Pupils should be taught:

- develop their capability, creativity and knowledge in computer science, digital media and information technology
- · develop and apply their analytic, problem-solving, design, and computational thinking skills
- understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns

So, what does this look like?

- Algorithms
- Computer Systems
- Databases & SQL
- Data Representation
- •HTML
- Impacts of technology
- Networks
- Programming –Sequence, Selection, Iteration, Subroutines, Strings & Lists, Dictionaries, Datafiles
- Security

Other:

- •IT and the world of work
- •IT Project management
- •Media
- Online Safety
- Spreadsheets

Annex B

LANCASHIRE'S DIGITAL LANDSCAPE IN 2019 AND FUTURE WORKFORCE PREDICTIONS

Recent curriculum changes in education have impacted on the uptake of digital skills for the future workforce. In schools, a move from ICT to Computer Science has driven a small increase in take-up of digital-related qualifications. However, the picture in Lancashire is mixed. Whilst Blackpool (16.7%) was in the top ten areas in England for proportion of pupils studying Computer Science in 2017, Blackburn with Darwen was in the bottom 20 in England at 8.6%.

In contrast to schools, at FE level starts on digital-related courses have decreased across Lancashire at just under 1,000 – a decrease compared with the previous year, with an average year-on-year decrease of 19% across all the TTWAs. Just less than half of all students starting digital courses were at level 2 or lower, with 26.5% studying Level 3 courses – more than half of digital courses started in Lancashire were students aged over 25. Additionally, more than six out of ten students studying digital courses were in study for ICT for users. This is arguably focusing on 'softer' digital literacy skills rather than 'harder' Digital capability skills such as programming or data analysis.

Evidence indicates an upturn in Digital Apprenticeship starts in 2018/19, in contrast to the 400 starts in 2017/18. Additionally, the number of Digital Apprentice Achievements in 2017/18 has increased by 11% over the same period. However, there is a high attrition rate for Digital Apprenticeships (though the reasons for this are unclear), and the achievement rate is lower than for all subject areas (57% v. 83% in 2017/18). Over three-quarters of apprenticeship starts were in ICT for practitioners, with less than 20% in ICT for users and the remaining 3% in Media and Communication. Two out of five Digital Apprenticeship Starts were by the 19-24 age group and just less than a quarter were aged 25 or above. The number of Digital Apprentices who are aged over 25 in Lancashire increased by 42% between 2016/17 and 2017/18.

Across the four universities there were approximately 2,245 students studying computer science-related subjects in the 2017/18 academic year. Undergraduates studying for computer science related degrees make up 4.1% of the total undergraduates, and computer science related postgraduates make up 2.7% of the postgraduate total. At HE level, student numbers in Lancashire have increased over the period 2014/15 to 2017/18; however, whilst there has been an increase in Computer Science and Games Development, there has been a decrease in Information Systems and Software Engineering – a key area for Lancashire businesses. This is a particular challenge as HESA's Destinations of Leavers from Higher Education 2016/17 data shows that Computer Science graduates have the highest unemployment rate 6 months after graduation (9% of First Degree Computer Science graduates in England, compared to 5% overall).

Education providers point to a number of challenges that impact on learning, and ultimately the supply of skills required by businesses. The constant evolution in digital roles and jobs creates challenges for providers in keeping the curriculum – and teachers – up to date with changing technologies and skills needs. A programme which facilitates more extensive education business engagement with the digital sector could help to address this Nationally determined changes within the education sector have significant impacts in Lancashire in terms of the subject choices made by young people and their subsequent entry into digital-related learning. Having a clear focus on digital priorities for Lancashire, and the pathways through which learners and the existing workforce can acquire the skills needed can help to ensure national changes do not negatively impact skills development in Lancashire.

Employers looking to fill digital roles require prospective employees to have both digital and nondigital skills e.g. communication skills, sales and marketing, team-working abilities etc. Creative skills such as design are often as important as technical, computer-related skills. Providers need to ensure that students are provided with opportunities to gain these skills as well as more technical skills as part of their digital curriculum. An additional challenge is that many of those who acquire very high level digital skills within Lancashire are subsequently lost to the local labour market as they move out of the area. There is a need both to strengthen links to local employers during and immediately after higher education studies (e.g. through work placement and internship schemes) but also to help people already working in intermediate or technician digital roles in Lancashire acquire the specialist knowledge they need to progress into higher level roles. Inclusive Workforce Access to the internet has been a priority for Lancashire LEP and will go some way to improving digital literacy. Whilst Lancashire has 97% coverage in terms of broadband connectivity, it is poorly served by fibre optic networks. Of the Lancashire residents surveyed, 92% had access to the internet and more than half of respondents considered themselves to be digitally competent. Although a quarter considered that at best they only have basic competency, with limits on the digital tasks that they can complete In line with findings from other national surveys, 8% of residents stated not to have any of the essential digital skills, whilst only 14% have all the essential digital skills across all the skills categories.

There are specific areas in particular that were less likely to have essential digital skills like Burnley and Pendle, and challenges regarding certain categories of essential digital skills in areas such as Lancaster and Morecambe. Age appears to be the most defining factor determining digital skills levels as the proportion without basic skills is increasing with age. Further, of the 8% who couldn't access the internet, more than half said it was because it "is not for people my age" suggesting they are choosing not to use the internet more than any other barrier. Help is most frequently sought from friends and family in order to complete tasks rather than seeking support from a service provider. Residents are most frequently using the internet for general information (80%), shopping (71%) and banking (69%). Fewer Lancashire residents have used the internet to make online applications.

Recommendations

Digital skills provision needs to change rapidly. Many of today's digital occupations did not exist ten or fifteen years ago. Rather than attempting a fine-grained forecast of future needs, the focus for public sector investment in education and skills in Lancashire should be on providing core digital skills – at school, at college and at university – which can then be built on and further developed by those seeking to work in digital roles. These are likely to include skills such as problem-solving, critical thinking and creativity, which can be applied in both digital and non-digital roles. Consequently, the following recommendations are made.

Future-proofing digital skills

Technological change is driving demand for new skills, and this will continue to be the case in future. Strategic partners and education providers should identify ways to respond to technological change, and provide core digital skills through education and training. The focus here should be on strong digital 'principles' and future-proofing the capability of learners, rather than specific skills. This will equip education leavers and entrants to the digital sector with a grounding in software programming, network design, systems development, user experience, etc. as well as an ability to be agile and adapt to emerging technologies, new programming languages, and so on. Building this approach into digital education courses is essential, but ways to establish some digital principles in

other courses should also be explored. Embedding digital principles will allow for a more knowledgeable, skilled and agile workforce that can easily diversify from a traditionally non-digital area of work to one more digitally focused should they want to or should they have to due to technological developments.

• This recommendation underpins all other recommendations set out below, and in particular Recommendations 6, 9, 10, 11 and 15 in terms of skills provision, up-/re-skilling and future-proofing skills and capability development.

Addressing strategic and cross-cutting issues

- 2. A clear, focused set of digital priorities for Lancashire should be developed. Whilst there are a number of initiatives and strategies existing and emerging at the local level, a pan-Lancashire approach that links in with existing strategies and plans, to reflect the increasing importance of Digital skills to the Lancashire economy is needed. This will help to co-ordinate and join up efforts, to better co-ordinate resources. Mapping out all initiatives, strategies and actors in detail may be required to underpin this.
- 3. Recognising the competition with other areas for Digital skills, partners should develop a communications and PR position to help promote the local Digital industry, as well as the Lancashire area more widely. As well as the comparative strengths of the Digital sector, this approach should seek to emphasise non-employment factors such as quality of life and lower cost of living where Lancashire is at a distinct advantage to other areas of the North West, and indeed England.
- 4. Strategic, industry and education partners must better understand factors affecting choices made by young people regarding education subjects, employment and career pathways. As part of this, the role of parents, peers and other key influencers should be better understood. This will help to better target careers advice regarding Digital sectors and roles in Lancashire and should be embedded in the work of the Lancashire Enterprise Adviser Network and Careers Hub.
- 5. Alongside this, partners must ensure that key influencers have access to up-to-date industry and technical knowledge about the Digital economy generally, but also about Lancashire's Digital sector. This is important to provide an accurate representation of the digital sector, and to showcase a balanced range of role models. This will help to better inform both young people and older workers seeking a career change, break down perceived barriers (particularly those related to gender stereotypes, and counter any misconceptions around the Digital sector and Digital roles that may exist.
- 6. Links between local digital employers and education institutions must be strengthened, so that: o Education providers can identify ways to improve the relevance of education for local Digital businesses, thereby enhancing the skills supply to local employers;
- o Employers can improve access to work placements, and help to upskill and facilitate knowledge transfer to educators and careers advisors in schools and colleges; and
- o Strategic partners can work to ensure better skills alignment industry, education, training and workforce development resources targeted to deliver the best possible outcomes for Digital employers in Lancashire. The Skills Advisory Partnership, and regular updating of LMI will be key components of this.

Business base

- 7. The potential pool of recruits for Digital employers in Lancashire needs to be widened. A significant part of this will be recognising the importance of under-represented groups in achieving not only a more balanced and inclusive workforce, but in widening the talent pool that employers have access to. The Tech Talent Charter and the lead set by the LEP and LDSP in signing up to the Charter is critical here. In addition, partners should work across stakeholder groups to identify different possible career pathways into the Digital sector and roles, including re-training or returner programmes. These pathways should recognise the value of non-Digital training, qualifications and skills that those presently working outside the sector can bring to the Digital workforce (e.g. design skills are relevant to user experience, for example).
- 8. Strategic partners in Lancashire should work with employers to identify digital skills needs specific to employers, and explore ways of providing support to engage Digital training providers in a way that makes such training more accessible, and meets the training and development needs of Lancashire's Digital businesses. Part of this may require the identification of 'clusters' of employers who have common skills needs, to help make (bespoke) training provision viable. Similarly, partners need to work to raise awareness and uptake of the plethora of existing business support provision available to Digital businesses in Lancashire, such as the Fast Track Digital Workforce Fund.
- 9. Given the anticipated continuing technological change and evolution, businesses should be supported to help future-proof the skills of their incumbent Digital workforce, and in upskilling those in intermediate roles. This will help to create a 'ladder' of employment and career progression opportunities in Lancashire, and grow the skills of Digital workers in the area.

Education Provision

- 10.Recognising the way in which curricula govern what is taught particularly at schools and FE colleges, consideration should be given to ways in which core digital skills (e.g. principles of programming or web development, rather than specific programming languages, and an ability to adapt and learn new techniques/languages quickly) for digital roles and companies can be developed early on in education, and at each stage of the education pathway by providers in Lancashire. This should be within both Digital and non-Digital subject areas, recognising the increasing importance of Digital to daily lives, and also to business operations and productivity throughout the economy.
- 11.As part of this, education providers in Lancashire should work together to explore ways to build in the aligned skills problem-solving, critical thinking, design and creativity into the Digital curriculum, and across education provision more widely, so that education leavers have a transferable skillset that is increasingly important to Digital roles.
- 12.In line with support on access to training for Lancashire's digital business base, strategic partners and education providers should examine ways in which smaller businesses can be supported to access Apprenticeships. Evidence suggests that smaller businesses often feel they do not have the capacity to support a young person on an Apprenticeship programme or cover all aspects of an Apprenticeship Standard in the work-place that an Apprentice needs to cover. A solution to this may be to use a shared Apprenticeship model across a number of different small digital employers.
- 13.In line with Recommendations 4 and 5 regarding understanding education and career choices, education providers and strategic partners should work together to identify ways to address issues of equity and equality notably the gender imbalance, but also under-representation of minority

groups – at all stages of the education and career pathway. Addressing this 'leaky pipeline' of talent into the Digital sector and into Digital roles in Lancashire is a key part of addressing the gender imbalance in the sector, and in enabling access to a wider pool of Digital talent for employers in Lancashire

Digital Inclusion

14.In line with efforts to increase Digital inclusion in Lancashire, strategic partners should recognise the role that wider digital skills (digital literacy, familiarity and competency in use of different digital systems) play in capability for Digital skills in employment. This can help enable pathways into Digital employment and careers for different parts of Lancashire's population, including for harder to reach groups, and for older workers seeking a change in career.

15.Strategic partners should seek ways to develop broader Digital skills, particularly amongst older workers, as a way of developing an additional pool of potential workers for digital businesses in Lancashire