Developing Digital
A guide and toolkit for school leaders
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Developing Digital Background

Initial thinking for this guide came from responses and reactions to the Independent School Bursars Association (ISBA) survey of 2018, which also framed the content of the Brighton Edtech Summit of 2019, held jointly between the ISC Digital Strategy Group, Education Foundation and supported by a range of industry partners.

The insight and contributions of educators, senior leaders and Edtech companies help us share real areas of promise across institutions. The work of the Chartered College, EEF and schools involved in the Edtech 50 provide a rich mix of education practice. The work of large companies like, Apple, Google and Microsoft and the work of the growing Edtech sector in the UK suggest a need to develop a common language that prioritises mutual partnership to develop the understanding of digital.

The Developing Digital guide also contains some lessons distilled from the on-going Covid-19 crisis - which saw short term and fast adoption of Edtech to meet immediate need. This ‘emergency’ adoption cycle can have positive benefits for whole organisations.

The Developing Digital Leadership Bulletin published by the ISC Digital Group and Edtech UK distilled early lessons for schools across England. Lessons on remote Teaching and learning during the pandemic were shared with leaders and was informed by a working group of educators and the insights form Mark Steed, Kellet School, Hong Kong, who were further into ‘lockdown’. Peer to peer insights and sharing of experience is invaluable.

The Developing Digital Guide
Your Six Pack - How to use this guide
Successful digital projects tell a consistent story, which this guide distills into six key areas:

1. Create an inclusive digital Vision to support teaching and learning in your school and develop Digital Intelligence (DQ) - read how other schools achieved this and why they find ongoing auditing vital.
2. Actively Manage success by tracking project progress. Edtech 50 schools and the ISC Digital Group share how schools have transferred and scaled-up digital success.
3. Continuous Professional Development (CPD) is needed throughout a project - bite-size, diverse to meet all needs certificated, on-going and audited.
4. Maximising benefits and value by planning for seamless, and secure Infrastructure with in-house or external support.
5. Safeguarding of children, data, systems at every step - better planned than bolted on.
6. Building Partnerships with third parties helps schools reach goals with consistent and reliable infrastructures. This guide suggests the right questions and outcomes to monitor for obtaining mutually respectful partnerships.
Foreword

We are delighted to be editors of the ‘Developing Digital Guide and Toolkit’.

We have talked, debated and shaped this guide over a long period of time to now publish, in this most unusual of times.

The Covid-19 crisis has exposed many schools to the immediate need to embrace education technology and allowed those already developing digital to harness their technology in new ways.

We applaud and celebrate how schools have used what they have; what they have learned to use and look outside of our own schools to understand and embed new practice with speed and responsiveness.

The immediate need for remote learning has seen schools rise to the challenge of new thinking and new approaches - it is educators who make digital work for their pupils.

We have worked with educators, senior leaders and companies to understand how to develop longer term approaches to education technology to support teaching and learning.

How do you establish and use technology to maximise its full benefit throughout an organisation and across the curriculum to support teaching and learning?

This first guide focusses on supporting senior leaders and senior teams to understand the potential and support the implementation of technology for the benefit of education, learning, educators and the institution itself. Thanks too, to Jon Neale, from Halcyon International School, who has led the research for this guide and Alan Hodgin for his involvement in the original survey and our response.

This project, with the collaboration of schools and the technology industry, supports schools in simplifying the mass of information that they have to take on board; recommending technical standards; advising on partnerships; sharing real ‘areas of promise’ to enable the transfer of success between educators themselves and showing the importance of leadership in establishing the culture and tone of how digital skills and staff capabilities are properly developed.

Leadership is vital and this first guide looks at some of those key decisions that need to be made, distilling elements of digital success; the ‘Six Pack’.

Further work will look across the curriculum to capture how educational technology supports the sharing and consolidation of knowledge, as well as the development of skills, creativity, joy and fun in learning.

We pay credit to the important work of ETAG and FEATAG - policy pioneers.

We’ll need to build understanding and resilience. We’ll need to share the long-term benefits of developing digital and what success looks like.

The work of educators who are developing digital and its possibilities should make our nation proud.

Crisis, calls for agile thinking; new ways to respond to the intensity of now.

Thank you to all our contributors and support from Intel that makes this guide possible.

As we approach a new school year and try to find a new routine, let’s consolidate what we have learned through difficult times to make sure we go forward to continue to offer our students a bright “new” normal.

Ty Goddard (Edtech UK)
Ian Philips (ISC Digital Group)
June 2020
A shared vision for digital, to support teaching and learning, needs to include everyone to develop digital intelligence (DQ) and support teaching and learning across the whole community.

Microsoft’s ITL Research recommends that after sharing the vision, policies and success criteria must be created and training planned before starting to implement the vision with ongoing user feedback.

The 2014 ETAG study concluded that the use of digital technology in education is not optional. Your digital vision should be a source of inspiration, running through your school supporting the needs and aspirations of all stakeholders to provide maximum benefit for your students.

This guide will give you access to success stories and a range of tried and tested tools for creating and sharing a vision, large or small, with your community members.

Like Layton Primary, your shared vision for digital can deliver the school’s broader strategic plan, you will need to find a variety of ways to motivate all stakeholders to develop their DQ. Everyone needs to have a clear understanding of why they should invest their time and what support and training they will be given. We must take our students on a journey to become empathetic global citizens who can collaborate to solve problems, as yet unknown, in a world where technology is ubiquitous.

For all stakeholders

Have you...

1. Engaged widely to create vision?
2. Reviewed national EdTech strategy?
3. Shared vision in a variety of ways?
4. Enabled feedback from everyone?
5. Sought a variety of representatives?
6. Enabled good communication between all groups and representatives so a strategy is adaptive?

Where do we start?

Try these resources to develop your vision with examples from a school like yours today. Try this SAMR link and a look at the Edtech50 Schools from the Vision resources section.
Incorporating Digital - Skills for Life
When incorporating digital into their School Development Plan and School Vision, Layton Primary School started by analysing their school’s context. Blackpool is often in the news for the wrong reasons - high rates of unemployment and deprivation amongst those cited by Claire Jones, Deputy Headteacher.

Resilience and Problem Solving
Claire goes on to say that, “In our school, we have 50% pupil premium which is significantly above national averages. Our pupils face knock backs in their every-day lives. We wanted to prepare a digital vision for everyone that would develop their: resilience, collaboration with their peers, problem solving skills and being critical thinkers.”

Coding a Vision
LPS, an Apple Distinguished School, has found that teaching pupils to code develops all of these skills, which are transferable across the curriculum. The school has a carefully planned Coding roadmap starting from the age of 4, where pupils are introduced to coding through pattern analysis and an introduction to the language of ‘if’ and ‘then’. This journey continues into KS2 where pupils start to write their own code and applying these computational thinking skills to a variety of situations including solving mathematical and SATs problems.

Transferable Skills
Starting their vision by looking at the ‘bigger picture’ and reflecting on what they want for their pupils, Layton’s KS2 results have been significantly above national averages for the past eight years. “Our pupils may not go on to be coders but they will have these transferable skills for life.”

Learning from Claire Jones
“Don’t allow obstacles to block your path. A strong digital vision for the school that inspires a community to work together goes a long way.”

Erskine Stewart’s Melville Schools
ESMS - effective use of technology to enhance, not replace, good teaching and digital literacy
A unique family of independent schools - co-educational Nursery and Junior School, Senior boys and Senior girls with a combined Sixth Form across two sites. Integration of technology is essential to the schools’ operations but also the ethos of learning. iPads, Chromebooks, Windows laptops and PCs are used widely throughout the schools. using Office 365 underpins the daily practice as a means to ‘level the playing field’ for learners and reinstates the importance of differentiation.

Seen as a VR Pioneer School, ESMS is exploring immersive learning through virtual and augmented reality.

Do look at Steve Bambury’s excellent VR resources for schools.
Stories of Impact

LEO Academy Trust, Surrey - Inclusion
LEO Digital Strategy focuses on enhancing learning for all learners and thus, inclusive approaches run throughout all of their teaching - EYFS whole class activities up to KS2 1:1 programme. For LEO, the focus has been on selecting appropriate tools to meet an individual’s need and ensuring the selected tool is having measurable impact on a regular basis. They have tried hard to ensure that using a Chromebook is not the recognised strategy, but instead choosing features and tools on the devices that best suit stakeholders.

Bolton Boys School, Bolton - Transforming Curriculum
The school’s vision is to support transformation of learning, centred around the introduction of 1:1 iPads and enabling innovative pedagogical approaches. At the same time, its success is predicated on combining innovative learning techniques with traditional teaching methods. For Bolton Boys, the focus is not on the device itself but the learning it gives access to and for staff it is the reduction in workload.

Hove Park School - Anytime
Anywhere Technology is used in a multitude of ways to develop the traditional learning methods. “The school believes it has a duty to provide its students with an education for the 21st Century where the effective and innovative use of technology helps deal with the demands of the modern world.”

Much of this work is led by student Digital Leaders – including hosting many international visitors to the school; accessing a range of learning activities off-site and then sharing their experiences with students back at school.

Myddleton College - 21st Century Skills
The college opened its doors to students at the start of September 2016 to prepare young people for life and work in the 21st century. “Our vision was for a child’s educational experience to resemble a modern workflow, a much more collaborative exercise than a traditional education delivers, between pupils themselves and between pupils and their teachers.” Stuart Ayres

“With Microsoft OneNote as the main tool and paired with a tablet device, students augment their notes with links, video, photos, audio, handwritten annotations, becoming more independent responsible and collaborative learners.” Mark Roberts, Head Teacher

You must look at Google for Education, Transformation Center Framework, the Microsoft K12, Education Transformation Framework and the Apple Education website for great strategic vision advice.

Support for executive function - Memory, organisational skills, time keeping and time management are all important abilities that can be impacted by a range of special needs. Simple productivity tools such as calendars, to-do lists, cloud storage and collaborative documents can all be used to support learners in these areas to be more independent and productive.

Adam Gordon LGFL
Resources

Schools are using resources to help them develop their vision and understand the steps they need to take to get started or continue on their digital journey. Here are some of the resources that are successfully being used by schools but do let us know if there are others that you have used to help you.

Realising the Potential of Technology in Education
To the right is the Edtech Framework for Change diagramme. A strategy for education providers and the technology industry setting out the Government’s aim “to support and enable the education sector, in a way that cuts workload, fosters efficiencies, removes barriers to education and ultimately drives improvements in educational outcomes.”

EEF Using Digital Technology to Improve Learning
Here are the four recommendations to improve children’s learning from the Digital Technology section of the Education Endowment Foundation’s teaching and learning toolkit, providing a summary of the international evidence on the use of technology in teaching.

1. Consider how technology is going to improve teaching and learning before introducing it
2. Technology can be used to improve the quality of explanations and modelling
3. Technology offers ways to improve the impact of pupil practice
4. Technology can play a role in improving assessment and feedback

There are a number of models being used by schools for developing a vision and assessing the use of technology for learning. You will find examples of the use of SAMR and TPACK models in this vision section and of the use of the TripleE in the Manage Guide.

The Godolphin and Latymer School successfully used the TPACK model by Mishr and Koehler to ensure alignment between pedagogical and technological approaches.

TPACK refers to the point at which three areas of knowledge meet - the "sweet spot". It differentiates between technological, content (what’s being taught) and pedagogical knowledge (how teacher imparts that content). This highlights effective edTech integration in order to enhance students’

The SAMR Model by Puentedura was used throughout all learning and teaching input sessions by St John the Baptist School, Brighton and https://bit.ly/xavierdigital.

You can see in the Manage Guide, it was also used by Ashford School to support teachers understanding of digital pedagogy.
Schools have access to a wide range of tools to monitor and measure the value and impact of their investment in technology. In this guide you will have access to a range of tried and tested educational auditing tools for realistic ways of managing your projects, however large or small.

Time is a scarce resource for all in Education. Carving out any opportunity in the calendar for digital strategy meetings can seem challenging but must be prioritised, just like time for training, to avoid losing project momentum.

Successful schools share and celebrate the successes of the team - staff and students alike. This will help shape the positive culture required for people to work outside of their comfort zone and develop a learning community.

We can work out the journey and quantify our digital success with a range of tool kits like the UNESCO ICT Framework used by Denbigh, revised Bloom’s taxonomy, SAMR, TPACK and RM’s Impact survey.

Read on to see how these are being used.

Manage Checklist

Have you...

1. A simple, realistic strategic development plan?

2. Created an agile development plan with ongoing input from representatives from all stakeholders?

3. Standards of practice for support, training, network development and device procurement?

4. Senior staff responsible and accountable for each priority and focused on reviewing feedback?

5. Annual review and shorter review points to monitor progress?

6. Contingency arrangements for dealing with obstacles and succession planning?

Where do we start?

Try these resources to implement your vision with examples from schools like yours today. Try the TPACK today.
Dr Neelam Parmar, Ashford School

The SAMR model is a guide for teachers as they reflect on and plan for implementation technology as a tool for student learning and thinking. Developed by Dr. Reuben Puentedura.

Dr. Neelam Parmar and the team at Ashford School have devised an easy to follow framework for Digital Strategy and Transformation.

It is essential to start with sharing the "Why".

The success of a digital strategy starts from the top. The vision for this must be clearly articulated and shared with all to create sustainable and believable change in behaviour, instruction and day to day practices.

Your ecosystem is the IT and MIS environment, applications, devices and tools which support your EdTech strategy. All components must work seamlessly with one another. Less is more and gradual can be better than ‘big bang’ to get everyone on board with an IT/MIS vision. The most important outcome, within this area, is to ensure that users have easy access to their systems and can gain insights on students’ learning if staff invest time in storing the data.

The SAMR model is more of a spectrum than a ladder. At one end technology is used as a one-to-one replacement for traditional tools, at the other, technology enables experiences previously impossible.

When it comes to teaching, it is important to offer teachers the understanding of digital pedagogy using the TPACK (Matt-Koehler) and SAMR (Puentedura) models - also see Vision resources.

The SAMR model is made up of four phases - Substitution, Augmentation, Modification, and Redefinition. Substitution and Augmentation are considered “Enhancement” steps, while Modification and Redefinition are termed “Transformation” steps. Training is essential to get any value from the move from the blackboard to a very expensive interactive whiteboard.

"Look at the vision of your school. Would most of your teachers be able to articulate it? If not, then the vision is not embedded. It may need to be revisited or completely rewritten.” Dr. Neelam Parmar

Message to school leaders
Mark Steed’s message

A vision must be educator led to deliver a school’s broader strategic plan.

Who makes IS/IT decisions?

Whole School Strategy Group
- Determines Educational Strategy

Whole School Digital Strategy Group
- Sets Digital Governance Policies
- Determines Digital Operational Strategy

Primary IS/IT User Group

Secondary IS/IT User Group

Admin IS/IT User Group

JESS Dubai and Kellet Hong Kong - Structure for Strategy
The school’s digital strategy must sit below and be informed by the whole school teaching and learning strategy. Teachers and other IT users need to have a say in the directions of travel. At Jess Dubai and Kellett Hong Kong, Mark Steed has achieved this by having a “Digital User Group” in each part of the school (Primary, Secondary and Admin) which feeds ideas into the “Whole Digital Strategy Group”. So, as you can see in the diagram above, all IT and IS developments are aligned with the Whole School Teaching and Learning Strategy and the Whole School Development Plan.

Read more on Mark’s blog and SlideShare.

Denbigh High School - A simple, clear strategic plan
Based upon a skills audit, the Director of Technology for Learning delivered a training programme to upskill staff before the rollout of new systems. Ongoing support was available to the community via school newsletters, training days and twilight sessions. Pupils were surveyed to ascertain their access to mobile devices at home and identify any barriers to future learning. Pupils with limited access to technology were supported via the school’s Support for Learning (SfL) department.

So successful has the work of Denbigh been, UNESCO featured the school in a case study - “Developing and delivering a successful technology for learning strategy in the UK” - highlighting the proven positive impact on outcomes. More information.

Wimbledon High School - Learning
Uppermost in this school’s mind is the need to equip its girls to navigate a fully digital world. Technology is embedded right across the school, as a tool for enhancing learning, underpinned by pedagogy and informed by a clear strategic direction.

The strategic focus is on developing and measuring real added value to transform the school’s teaching.

This is perhaps best captured in the school’s STEAM philosophy, where cross-curricular thinking, making and experimentation are central. According to the school’s impact measures, feedback is provided by the technology to shape future, much faster-paced lesson. Wimbledon High School won the TES Award for Best Use of Technology, 2020.

The Bentley Federation - Creators
It aims to empower children to become digital creators, not just consumers. To achieve this, the schools have invested in an Immersion Room and VR headsets, alongside creation software like CoSpaces. Plans are in place to develop teaching and learning using these tools in order to further inspire and embed technology in the curriculum. Impacts include many examples of financial savings through embracing new technologies, access to technologies for SEN children in the Federation’s Deaf Resource Base, as well as positive feedback from teachers on the quality of work deriving from the use of digital.

Ian Phillips, Haberdashers

“A great vision can inspire everyone but needs careful and agile management”
The Wallace High School - Teaching & Learning
Digital technology is a key aspect of the school’s development plans. An Ulster University evaluation of the school’s 1:1 iPad programme noted a real potential in new forms of technological practice for advancing teaching and learning.

The EdTech50 Magazine, 2020 - Examples of Success
The EdTech 50 Awards celebrate the use of technology to improve education and learning in the UK education technology sector, showcasing best-in-class examples that others can learn from and follow in a bid to help advance education as a whole and so develop the digital wisdom of everyone especially our students.

Read about their stories at bit.ly/edtech50schools

Triple E Framework
Devised by Liz Kolb, the Triple E is a practical framework that measures the degree to which the technology in a lesson is helping students meet the learning goals. Unlike some other technology frameworks, the Triple E Framework focuses on the learning goals and not specific technology tools. The framework draws on educational research concerning effective and ineffective practices with technology tools from the past two decades.

The framework is based on three components: Engagement in learning goals, Enhancement of learning goals, and Extension of learning goals. While not a perfect science, the Triple E measurement tool provides a benchmark for what educators should be thinking about when considering a technology tool for learning.

More information at tripleeframework.com

UNESCO ICT Framework - 3 Stages of Development
The framework, as used by Denbigh High, can assess against three different approaches to teaching - Knowledge Acquisition, Knowledge Deepening & Knowledge Creation. This framework is detailed and extremely useful.

Read more - www.oercommons.org

Resources

DQ Institute
An integral part of their work is the DQ Framework. Digital Intelligence (DQ) is a comprehensive set of competencies that are grounded in universal moral values which enable everyone to face the challenges and harness the opportunities of digital life. Find out your school’s DQ today - dqtest.org

HWB
A cross-curricular skills framework, as part of the 2020 Curriculum for Wales, includes a comprehensive digital competence framework. Alongside Literacy and Numeracy, digital skills are mandatory across all areas of learning and experience. Search “Hwb 2020 framework”

Where do we start?
TRY IT TODAY...

Download the ready to use resources from the UNESCO ICT Framework and share these with members of your community and set aside time to discuss and reflect upon the results.
Any strategy for support and training should embrace a wide variety of methods - all of your stakeholders are different! The easy part of any digital journey is acquisition of the technology. The full value only comes when everyone is confident and competent.

In this guide you will have access to a range of tried and tested resources and methods for managing and assessing everyone’s digital training.

Developing digital skills isn’t easy. There are countless stories of situations in which schools and districts didn’t understand the challenge of training everyone. With the right training and in the hands of skilled educators, the potential for technology to transform learning journeys is phenomenal. Without training, the potential to have a negative impact is worrying and all too common.

There are many exciting ways in which schools across the UK and beyond are engaging in meaningful CPD, giving access to stakeholders across the community. Read on to see if there are schools like yours here or look at Vaughan Connolly’s 1:2:1 literature review on ISCDigital.

**Why?**

RM Survey 2019 reveals 62% of teachers believe their efficiency and effectiveness could be improved. 39% are somewhat or very unconfident using technology.

**IQ EQ DQ**

**CPD Checklist**

Have you...

1. Assessed the skills of everyone?

2. Good systems to monitor the development of everyone’s skills?

3. A diverse training program with a range of resources to support the development of everyone’s skill?

4. Established practice of celebrating innovation, personal development, developing others, collaboration and managing change?

5. Champions and digital leaders to help understand training? requirement, cascade and support the development of skills?

6. Skilled trainers or partners to support all with a range of resources and methods?

**Where do we start?**

Try these resources to support your vision, training everyone with examples from a school like yours today. Have a look at the Chartered College of Teaching Resources.
New Wave Federation

New Wave Federation is committed to developing staff and utilising a range of tools to improve subject knowledge and pedagogy with Digital Learning. Professional development underpins their digital strategy and is provided in a range of ways to ensure success.

An Apple Distinguished School, New Wave, deploys a team of expert practitioners and highly skilled leaders to implement their professional development strategy. To do this they run whole school training, small group workshops, planning meetings and support in class with teaching and coaching. They have self-directed options and a teacher learning community for teachers interested in going further with technology.

Lessons from New Wave

Cassey Williams, Assistant Headteacher, recommends that other school leaders should start with quick wins and celebrate often. “We host showcase events where teachers share impact in their classroom and use Twitter to share learning.”
Ashford School, Kent – Supporting Pillars of Change
Ashford has produced a digital strategy framework that consists of four main strands. These are: Digital Leadership and Vision, Streamlining of Digital IT and MIS Systems, Pedagogical Integration and Content Curation in the Curriculum. These pillars are supported by a continuous Digital Teacher Training Program. As a result of this streamlined ecosystem and process for professional development, teachers are able to work in more effective ways, making workloads more manageable.

Halcyon London International – Personalising support
Every year, the the digital skills of the community are assessed using a variety of methods. Armed with this data and established goals for learning, the Digital Learning Leader seeks to provide opportunity for the whole school.

Through carefully planned training, the Digital Learning Leader provides opportunities for the whole community (students, teachers, administrators and parents) to develop their skills and understanding. Training is delivered in a variety of manners, 1 to 1, group work, in person or online; classroom based or other.

Royal Hospital School – Two Year Programme
It strives for excellence in the use of EdTech. Mobile learning has been significant in the development of teaching and learning for over six years. This commenced with a two-year training programme for teachers; with a roll out of 1:1 devices in 2014. The School is an Apple Regional Training Centre, and recognition includes a 360 Degree Online Safety Mark and status as a national ‘Beacon of Good Practice.

You should also look back at the Denbigh story on the Manage Section.

Not sure where to start?
No problem! So many good examples here but audit your skills first.

Do you feel confident to use the resources here to get started on your own or you need help to develop your school’s training program?

You should look at Chartered College Resources or if you use Apple, Google or Microsoft, there are schools offering tours and /or training.

Talk to local schools that are:

Apple – Apple Regional Training Centres
Google – Google Reference Schools
Microsoft – Microsoft Training Academies
The most critical piece of the puzzle in ensuring that technology is used effectively is the teacher. Their expertise and the decisions they make about when to (and when not to) use technology, and how to use it, are what really make the difference. High-quality teacher CPD is therefore critical if we want to see technology having an impact.

Cat Scutt, Chartered College

Resources

Chartered College of Teaching – Sharing Stories for Raising Standards
In partnership with the Department for Education, the Chartered College of Teaching has launched online training courses for teachers and leaders in Education which “strive to improve the use of technology in teaching, alongside other training opportunities offered by industry.” The first of these is available at www.futurelearn.com/courses/technology-teaching-learning. Access is free.

The Chartered College of Teaching has also launched a new publication looking at teacher CPD across the world. The landmark project, published by the professional body for teachers, brings together over 30 different articles by some of the world’s leading researchers and practitioners showcasing trends, opportunities and challenges in developing professional learning for teachers.

ETAG 2014 and FEETAG 2016 – use of digital in Education is not optional
These studies stated competence with digital technology is an essential contemporary skill belonging at the heart of Education as in the workplace.

Partners
With sessions often delivered by qualified teachers adopting a pedagogy first approach, there is an increasing number of accredited partners working closely with Apple, Google and Microsoft to deliver training days. They can represent excellent value as, if you offer to host a workshop, you will be able to secure free places for some of your own staff.

Twitter
There is an amazing number of reasons why Twitter is a great move for all in Education.

When it comes to connecting with other school leaders that have experience and can offer strategic support it is recommended. Hashtags to follow are #EdTech #EdTech50 and #SLTchat.

Identify a few colleagues in-house that are already successfully using training platforms.

Encourage all of your staff to join their professional organisations and Twitter to enable them to connect and share with a global network!

This authentic, positive voice can help generate enthusiasm and momentum. Celebrate successes, connections and ideas being used in the classroom.

Find tools available in other schools or in Wales and Scotland like the professional learning needs tool on the Welsh learning platform Hwb.
What we have learned from Covid-19

This has been a great time for collaboration - cross phase, cross sector & international. Some of the reports produced include ‘Protecting Learning’, from an adhoc group called HomeLearningUK, an emergency Leadership Bulletin from ISC Digital at the Education Learning Foundation. Here are some comments that we found useful to understand what we can learn.

1. Our vision must be simple, inclusive, clear, referenced and communicated effectively
“Most importantly, we must make sure that our learners continue to feel that the school and their teachers are still there for them, guiding and supporting every pupil through these challenging times.”

2. We need to manage change with empathy for everyone
“Covid 19 has given us all reality check on our education system and the use of technology. This is our moment to shape EdTech and future proof our teachers with the necessary skills. To take on the challenges of today. This digital guide is a great resource to support teachers and provide a clear framework we can use in schools.”
Mark Martin MBE

3. Teachers must have continuous professional development
Teachers will need ongoing training to continue to adopt a wide range of pedagogical strategies and adapt to make the most of changes in technology.

“I must admit to feeling overwhelmed at how incredibly adaptable our staff, pupils and parents/ carers have been to this new way of working, overwhelmed at how unbelievably supportive the online community of educators across the globe has been, sharing resources, advice, successes and failures with each other and overwhelmed with relief that we made some of the strategic decisions that we did over the past few years with regards to prioritising the use of technology for learning with our Chiltern Learning Trust schools.”
Emma Darcy Blog - First week of lockdown

“Technology has been necessary to continue teaching and learning from a distance. Schools have been training staff and developing their infrastructure so they can redesign content delivery to get the most value from using online learning platforms. Further investment in creating bite size curated content will continue to support individualised learning.”
Rachel Evans

“Investment needs to be focused on teacher wellbeing with increased investment in the work of Education Support - the national charity for the wellbeing of teachers.”
Protecting Learning Report
“There needs to be immediate investment in not only digital infrastructure but in digital devices to facilitate and protect learning at home. The digital divide across the UK is real, impacts on social mobility and provides a block on the ability of pupils to access learning remotely.”

Protecting Learning Report

6. We need Partnerships of trust to develop our learning Communities

“Educators rose to many challenges during the Covid-19 crisis - not least keeping schools open for key workers, initiating remote learning and developing new ways to support young people. Rapid deployment of education technology, often a new experience for many, enabled teaching and remote learning but there remain obstacles to seamless use of technology to support teaching and learning both in school and out of school.

The Covid-19 crisis laid bare the digital divide - well documented before the crisis. Creaky old infrastructure - learning platforms included - for schools was a real obstacle. For many educators education technology was a new professional experience - often training and learning as they went from other colleagues or companies.

Make do and mend, good as it is, can only get you so far.

The long awaited Edtech Strategy of 2019 in England and those digital education policy frameworks across the UK will have been shown to be of variable success.

Policy should enable choices and professional judgements not stifle. In England, I would expect an interest in the many positives of education technology from Ofsted.

We’ll need to work together - in partnership - across our education system to develop proper foundations for future resilience and it will be peer to peer support, like the Edtech Demonstrator programme that shows the value of Edtech to support our teachers and learners.”

Ty Goddard, Chair, Edtech UK

4. We must continue to develop our infrastructure to be consistently and reliable so that online platforms can be effective tools for learning

“The immediate experience of lockdown has school leaders wanting to be more prepared for a ‘Hybrid learning’ environment. I believe there are further opportunities that can be harnessed through a 1:1 technology programme in any school. Operational and learning efficiencies must be considered when embarking on such a journey. A change of mindset and a willingness to ensure equitable access for all students is the foundation of this change.”

Abdul Chohan

5. We must safeguard everyone and our data and look after the wellbeing of the whole learning community

“Within Glow safeguarding of pupils has been done at a national level. Every pupil has access to range of digital tools that can aid learning (infrastructure at home dependant) and there is also a wide network of support from teachers across the country.”

Sarah Clark, Queen Anne High School

“We value our physical communities. Some of us have learned we can work from home and coexist with our families during these challenging times while others may be anxious to return back to the normality of it all. Keeping the school structure, timetable and placing importance on like minded interests with social interaction may be important in becoming mindful for student’s social and emotional needs. Students, as well as people, need a sense of belonging and supportive atmosphere to foster positive thinking and connectedness.”

Neelam Parmar - 5 lessons
We need IT working like electricity for everyone in the learning community to get most value from our investment in technology. This means when you switch it on it just works and you have had the training to know how to use it. So, it has never been more important to roll out improvements that are both cost-effective, time efficient and that support the overarching vision.

In this guide you will have access to a range of tried and tested resources and methods for developing and maintaining your infrastructure, as well as your special projects. A great vision can inspire everyone but your infrastructure must create a platform as consistent and reliable as electricity to allow everyone to invest their time to use technology to effectively support learning.

In the 2018 survey by RM, ISBA and ISCDigital concluded that 66% of schools from 1000 responses felt they were not getting value from their investment in technology.

Audit Staff Potential - Try these resources on the ISC Digital website to develop your infrastructure with examples from a school like yours today.
Infrastructure Standards for success - Think-IT
Standards produced for the Welsh Government on being “Cloud Ready” are available on the ISCDigital site. An essential guide for all your infrastructure, they are envisaged as a simple set of guidelines for schools to take in order that they can develop ‘anytime, anywhere with anyone’ learning.

It is accepted that schools are operating on limited resources and these guidelines will help you plan for attaining these standards over time.

Think-IT guidelines include recommendations for internet and network bandwidth as, without this, investing in hardware will not deliver good returns.

ISCDigital has also produced a number of useful resources such as “How do you Lead your network team” and “Can you answer these 10 questions about your school network?”

Use these to inform discussions with your network team.

BYOD and 1:1 - Success Stories
There are a wealth of resources on the ISCDigital website to help you consider how to implement BYOD or 1:1 and the obstacles that others have found.

Considering costs, always remember you have to manage more than computers in the classroom. Everyone – student and teacher – has a smartphone. Many others also have wearable technology like smartwatches and tablets. As the internet of things continues to grow, each device will sap your bandwidth and interfere with classroom use.

Ensure that students only have as many permissions as they need. This keeps them away from confidential teacher data and if there is a breach, the potential damage will be contained.

Preparing for 5G - Do you need it?
Unless you are considering investing in new wireless infrastructure you should wait to consider 5G. While not widely available now, it has begun limited rollout and will be the next WiFi standard improving capacity and communications.

Cabling - Essential Infrastructure
One of the easiest ways to improve your school’s IT performance is to improve the cabling infrastructure. Fibre is more reliable and provides faster data access.

To get buy-in from everyone, you need IT to work consistently and reliably so your learning community will invest their precious time. You also need to educate on risks of not improving IT and benefits that upgrading can bring.
Future Procurement

What Should Procurement Look Like?

How can building relationships with your suppliers make a significant difference to your school?

If you are shopping around for a bargain, will you be sure to have good pre or post sales support? Will the reseller understand your specific infrastructure?

In the age of constant IT innovations and with the pace of change continuously accelerating in the coming years (VR, AI, etc), coupled with tighter budgets, it has become increasingly difficult for schools to keep up with the technology available and the skills required to manage it. Schools are having to try and juggle developments into their budgets for the classroom and work out what they need and why they need it.

Mark Steed shared a strategic approach to long term IT budget planning and a spreadsheet to enable predictable spending. Available on SlideShare it is called a-strategic-approach-to-long-term-it-budget-planning.

Where to start

You need to try and find a reseller that has strong links, not just with the vendors with whom they work, but partnerships with other specialists that can help the school on a journey where they get the best solution for what the school needs. This approach will invariably get you the best end to end solution, greatest return on investment and longevity of hardware/software to fit the budget.

SystemActive is one company which works on this approach. As with schools, they can’t possibly be experts at everything – the cost to schools would be too great. They have created an ECO system of suppliers and partners to work alongside them, bringing those specialisations together to give schools an end to end solution. This is the only true way any school or business can build a reliable and consistent infrastructure.

As technology improves our lives, the complexities tend to increase. Schools and businesses need tools that work for them. There has never been a bigger reason to work with organisations where the school is seen as a partner in a solution.

Collaboration is the reason we evolve. Without it the end product is never as good as it could be.

Read Mark Budgen’s blog on ISCDigital.

Try it Today

Arrange a meeting with your school’s IT administrator to discuss how the 3 year plan for developing the school’s IT infrastructure will underpin the school’s broader strategic plan. Use ISCDigital resources to inform your discussion.

Applications
An IT infrastructure supports the delivery of enterprise applications.

Infrastructure Management Tools and Services
Key infrastructure services at this layer include Dynamic Hosting Configuration Protocol (DHCP) and domain name system (DNS). To manage all elements of the infrastructure efficiently, admins use the tools for configuration management, monitoring, authentication, user directories and more.

Servers
The server layer consists of physical and virtual servers for on-premises and virtualized data centre environments.

Storage
At this layer, systems such as network-attached storage (NAS) or storage area networks (SAN) enable data storage.

Network
The network layer includes elements such as routers, switches, firewalls and load balancers.

Facilities
The physical data centre facility houses IT equipment and includes necessary power, cooling and security components.

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Resources

ISCDigital Stories – Maintain and Develop Infrastructure
There are many stories on the ISCDigital website to help you understand what other schools are doing.

Community of Experts is one of the projects
Good practice exists in all our schools, with many areas of specialism spread across schools. To try to ease workload by highlighting good practice, enabling learning from our peers and bringing together relevant first-class content, this group has begun to draw together intelligence, seen below, and reached out to the ANME to build a collaboration for sharing.

To achieve this mission, they plan to:
• Host focused events
• Create opportunities to visit member schools
• Curate and summarise member discussions for wider circulation
• Facilitate research

More on iscdigital.co.uk/isc-community-of-experts

UCL – Buying the right EdTech for your school
Richard Grice Director of Digital Strategy has written a great blog called Device Dilemma to help schools through the difficult choices they need to make on choosing the right device solution for their school.

A research paper summarised by 4 steps:
• Work out what you need
• Identify resources
• Try before you buy
• Make an informed decision

NESTA - Making the Most of Technology in Education
Drawing on lessons from nine examples from around the world, this research focuses on two distinct broad areas of interest:
• The first focuses on technology in the classroom or individual school.
• The second focuses on larger processes of system-change.

Equally important, this body of literature asks questions about policy levers and the complex relationships between the different stakeholders in our school systems.

In this publication, NESTA identified a small number of factors to act as a framework:
• Scale
• Teachers
• Content
• Complexity
EEF – Using Digital Technology to Improve Learning

What should I consider?
Before you implement this strategy in your learning environment, consider the following:

1. Effective use of digital technology is driven by learning and teaching goals rather than a specific technology: the technology is not an end in itself. You should be clear about how any new technology will improve teaching and learning interactions.

2. New technology does not automatically lead to increased attainment.

3. How will any new technology support pupils to work harder, for longer, or more efficiently, to improve their learning?

4. Pupils’ motivation to use technology does not always translate into more effective learning, particularly if the use of the technology and the desired learning outcomes are not closely aligned.

5. Teachers need support and time to learn to use new technology effectively. This involves more than just learning how to use the hardware or software; training should also support teachers to understand how it can be used for learning.

Look at the whole report here.

What should I consider?
Before you implement this strategy in your learning environment, consider the following:

- Treat scale-up as a new implementation process
- Continuously acknowledge, support and reward good implementation practices
- Plan for sustaining and scaling the intervention from the outset
- Use implementation data to drive faithful adoption and intelligent adoption
- Reinforce initial training with follow-on support within the school
- Support staff and solve problems using a flexible leadership approach
- Develop a clear, logical and well specified plan
- Assess the readiness of the school to deliver the implementation plan
- Prepare practically e.g. train staff, develop infrastructure

IMPLEMENTATION PROCESS BEGINS

1. Identify a key priority that is amenable to change
2. Systematically explore programmes or practices to implement
3. Examine the fit and feasibility with the school context

STABLE USE OF APPROACH

1. Sustain
   - Identify a key priority that is amenable to change
   - Continuously acknowledge, support and reward good implementation practices
   - Plan for sustaining and scaling the intervention from the outset

2. Explore
   - Use implementation data to drive faithful adoption and intelligent adoption
   - Reinforce initial training with follow-on support within the school
   - Support staff and solve problems using a flexible leadership approach

3. Prepare
   - Develop a clear, logical and well specified plan
   - Assess the readiness of the school to deliver the implementation plan
   - Prepare practically e.g. train staff, develop infrastructure

4. Deliver
   - Use implementation data to drive faithful adoption and intelligent adoption
   - Reinforce initial training with follow-on support within the school
   - Support staff and solve problems using a flexible leadership approach

DELIVERY BEGINS

Look at the whole report here.
Developing Digital
Safeguarding is everyone’s responsibility, a statutory requirement (see KCSIE and Prevent) and a necessary element of any digital strategy. With an ever-increasing number of social platforms appearing, it is important to instil a clear understanding of how a community can work together in the interests of shared safeguarding practice.

It is therefore not possible to apply a one size fits all approach and different policies are adopted by different schools.

In this guide you will see how experts in the field break down what can be a complicated problem into simpler issues to understand and solve. Look at the guidance on digital footprint, potential filtering, data security and cyber security.

The 2018 survey by RM, ISBA and ISCDigital concluded that 66% of schools from 1000 responses felt they were not confident they could safeguard their pupils or data.

Safeguarding Checklist

For all stakeholders, data and visitors

Have you...

1. Ensured that all stakeholders and visitors are aware of policies?
2. Partnerships to support school and ensure all policies are up to date?
3. Ensure third party agreements adequately address data protection?
4. CEOP trained staff and all staff regularly trained and Assessment in eSafety?
5. Considered Staff and student well-being in risk assessment of new digital developments?
6. External Annual assessment of data security?

Where do we start?

Look at these Updated Online Safety resources in Thomas Lange’s wakelet to safeguard your vision.
We need to accept a feeling of healthy paranoia... I don’t believe anyone should be 100% confident in their cyber security.

Gary’s thoughts on security

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Cyber Essentials, Gary Henderson

Cyber Security Preparedness – Accepting Certainty

1. Accept that it will happen - If cyber criminals can get into major tech companies or data can be leaked from them, then the same can happen to schools. We need to accept uncertainty and make our decisions regarding the measures we take.

2. Be nervous - We also need to accept that feeling of nervousness, as it is simply an acceptance of the prevailing risk and uncertainty, and use this to drive us to re-examine our approaches and assumptions regularly. I don’t believe anyone should be 100% confident in their cyber security.

3. Put user awareness first - Users are involved in most breaches or data leaks and therefore should be the first area of focus. Only via a mixed approach can a culture of cyber security be built, including using phishing simulation/testing, regular just-in-time information and notices around school.

4. Test your backup plans - Having a disaster recovery (DR) plan, having a secondary internet line, cloud based remote backup services or a cold spare firewall is a good start but most important is testing them. You need to check such disaster recovery systems and processes work and that everyone involved knows how to get them operating, and this should be done regularly.

5. Grill your third parties - As we share more and more data with third parties we also need to ask more questions of them. We all need to do more to ensure that third parties provide us with the assurances we need and, where possible, can provide independent evidence to support and confirm this.

6. Do the basics - We need to patch our systems regularly and have up to date anti-virus in place, make use of MFA, segment our networks and manage data access through a least privilege possible approach.
Just like any school would have a fire drill, Gary Henderson (Millfield School), recommends simulating an incident and confirming all systems operate as they should and everyone involved knows what they need to do. “If you don’t, then you await a real incident at which point you will be rolling the dice and trusting in luck.”

Canary Wharf College – Parental Engagement
Their key digital strategy is to remain at the forefront of technological development in the field of Education. Activities are all age appropriate within the overall framework and include safeguarding and parental engagement priorities.

Bentley Federation – Using ICT Mark prioritises eSafety
For a number of years the Federation has adopted NAACE’s self-review framework, the ICT Mark, as the basis of the schools’ development planning. The comprehensive approach to technology embraced in these plans prioritises online safety guidance (using Digital Leaders, Y6).

The Federation has been awarded the 360º Online Safety Mark. You can find out more about ICT Mark on the NAACE website and 360º Online Safety Mark on the 360º Safe site.

Pond Park Primary School – Parents
Pond Park has a secure digital strategy in place embedding national initiatives as everyday practice and working closely with parents. Integral to its success is a focus on safety. To encourage their inclusive community wide approach to online safety, the school has introduced a programme of activities including Pupil/Parent Online Safety Evenings. The impact of technology on boys’ learning in areas, such as literacy, to shines a light on the many positive ways that technology can be used in school and at home.

Lessons from educators

Stories of Impact
Resources

CEOP – thinkuknow Framework
Child Exploitation and Online Protection Command has partnered with Safer Internet to deliver an educator friendly package called Think U Know. It provides a robust framework to help schools raise awareness of online child abuse and exploitation in a sensitive and age appropriate manner.

More information at thinkuknow.co.uk

ParentZone – Digital Resilience
Parent Zone offers an array of services and resources to schools to enable teachers to educate their pupils on how to stay safe online, what to do if they find themselves in an uncomfortable situation and how to build their digital resilience. Explore the different areas below to find the resources you need to benefit your school.

More information at parentzone.org.uk

360 Degree Safe – Self Review Tool
An online safety self-review tool, 360 Degree Safe, has a library of free resources and offers accreditation. Used by Royal Hospital School.

More information at 360safe.org.uk

The Data Protection Toolkit – Policies & Process
This helps guide schools through key data protection activity, including compliance with the Data Protection Act 2018, by developing policies and processes for data management. From collecting and handling data through to the ability to respond quickly and appropriately to data breaches, this guide cover the whole process.

Search data-protection-toolkit-for-schools.

NSPCC Learning – eSafety for Schools
Resources available to shape a whole school approach to eSafety, thereby helping to ensure staff, governors and parents are able to teach children about staying safe when using internet technologies. It also helps make sure pupils themselves know how to behave responsibly online.

More information at learning.nspcc.org.uk

SWGfL – Online Safety Templates
Great site for advice and templates for creating an Effective School Safeguarding Strategy. Online Safety is a key and pivotal part of a school’s broader safeguarding commitment. So much useful advice and templates to draw on here that everyone uses for their templates.

More information at swgfl.org.uk

eCadets/GoBubble – Curriculum Resources
eCadets is an age-appropriate eSafety curriculum that is flexible, relevant and engages pupils’ interest. It is used to promote eSafety through teaching pupils how to stay safe, how to protect themselves from harm and how to take responsibility for their own and others’ safety. Rewards are used to cultivate positive and responsible use.

GoBubble, by eCadets, is an award winning walled garden social media platform that helps develop important skills of digital literacy/footprints in young children.

More at ecadet.zone and gobubble.school

Updated Online Safety Wakelet – Thomas Lange

BBC Own It (app)
The BBC Own It app is an online safety and well-being app for young people to help track how they are feeling, build online skills and access support for problems they might face online. The app is private and includes a keyboard that responds to what they write. It might prompt users to think before sending a message or direct them to help if it thinks they’re upset. Share this with your community today!

Where do we start?
Try it Today
Developing Digital
Partnerships
A Problem shared is a...

A great vision can inspire everyone but the quality of your external partnerships will have a major impact on cost-effectiveness, consistency and reliability of your infrastructure, as well as diversity and relevance of your curriculum.

Know your strengths and get help where you have weaknesses.

In this guide you will see how schools and colleges like London Design & Engineering UTC have developed different types of partnerships including community, enterprise and industry, enabling them to develop a rich engaging curriculum and anytime, anywhere learning with anyone.

This Guide
The resources for this guide have come together as a response to the realisations from the ISBA survey of 2018. Partnerships and collaborations across all sectors and phases, from EdTech companies and educational organisations, teachers and Senior Leaders who have given time and resource have brought these stories and the wealth of insight to one place. Hopefully this guide will help to continue the momentum to create a valuable, interactive, online repository of digital wisdom to develop DQ.

Partnerships Checklist

For curriculum diversity and relevance

Have you...

1. Clarified your school’s aims?
2. Identified skills and resources at school for developing digital and areas where support is needed?
3. Good links with local business and the IT industry for curriculum diversity and relevance?
4. Partnerships to enable succession planning, training and support for staff development?
5. Partnerships to technically monitor each project successfully and monitor the integrity and security of the network?
6. Appropriate response time from IT support, from within the school, or from external partners?

Where do we start?

There are great stories of collaborative projects between schools and EdTech Companies on the ISCDigital website.
“Leadership of the EdTech sector is vital and the partnership between educators, manufacturers, vendors and the EdTech businesses themselves is of utmost priority to develop efficacy, reduce costs and help schools understand they need to grow their use of digital.”

Blutick and The Perse

The Story so Far – teacherenepreneur and The Perse School
Blutick is an AI Maths teaching and learning platform for secondary school students that grew out of a partnership between teacherenepreneur Rob Percival and The Perse School in Cambridge.

Creating Blutick Maths was a natural coalescence of The Perse’s and Rob’s own skill sets and experience. For a school being involved with a start-up, Education Technology Enterprise is quite unusual. We knew that our teachers would learn through their involvement and that was a strong motivation for The Perse getting involved. Right from the start, we established that the video content being created by our staff was going to be a useful asset for our internal purposes, perhaps to assist with exam revision or homework.

Blutick needed a huge amount of video and question content, and quality teachers to do the creation, which The Perse had.

Advantages
What we didn’t expect was how useful it would be getting Blutick into classrooms at an early stage.

The wider benefits of taking Perse teaching to a wider audience through Blutick produced a win-win situation.

Future
The Perse is delighted to have been able to assist an innovative company with this global challenge by continuing the collaboration between Rob Percival from Blutick and Simon Armitage from The Perse School.

Hybrid Support
As the complexities of managing cloud infrastructure and supporting a wide range of devices in school increases, it is imperative we develop staff on-site, helping them achieve the qualifications to maintain and develop school systems, or we must share the technical responsibilities with external experts.

Successful schools can have a wide variety of relationships to maintain and develop their infrastructure right from fully managed services by external companies with their networking staff on-site, to adhoc consultancy or networking between schools which acts more like a sounding board to make sure that the IT development enables them to achieve the school’s broader strategic aims.

You will need to carry out a detailed skills audit and you may want to take advice to work out what is the best relationship for you to develop digitally.
Stories of Impact

London Design & Engineering University Technical College, London – making a difference with a wide range of students

It’s a high tech school where academic excellence and employer partners combine to create the next generation of ‘confident, work-ready individuals.’

The curriculum is delivered through interesting and exciting employer-led projects, enabling learning by doing. Learning is relevant and memorable and boosts students’ academic achievement.

A cohort of the college’s Y13 Digital Media students was graded ‘Double Distinction’, being able to demonstrate real-world projects such as published Apps and VR animations with organisations such as Augmentifyit, Fujitsu and Water Aid.

Read about success of their students on their website

Carmyle Primary School – Parents
This Primary School began its digital journey in 2017. Working hard to keep up to date and sharing its understanding with the local community, it has developed a relationship with the University of Strathclyde running a session for the university’s cohort of student teachers.

A further community partnership that is reaping reward for Carmyle is that with the parents. Over 75% of parents attend sessions on Digital Learning and STEM.

Friars Academy – enhancing learning
Friars continues to build on its links with local industries and strives to provide their students with meaningful Work Related Learning Opportunities. Thanks to sponsorship from one of its industry partners, Cummins UK, it has been able to update the equipment in the DT workshop to enhance the students’ learning experience, offering a taster of current industrial processes.

Assistive Tech – Major Progress
Tech companies are developing tools with accessibility features as standard. Key benefits across devices and software from major tech companies include:

- **Text to speech** – for visual impairment or difficulty with reading.
- **Speech to text** – for those who find writing or typing difficult/impossible.
- **Executive Function Support** – helping Memory, organisational skills, time keeping and time management.
- **Voice recognition** – control device functions with voice and other movements.

Identify an area of growth within your team. Give staff trust, time and PD. Why not share an easy to complete form with Google or Microsoft forms for parents of your pupils and local community?

It is also a good idea to ask parents to circulate with their own contacts. Some schools have successfully started a business patrons arm - great for networking, resources and innovation.
Building EdTech Partnerships

The second layer of the pyramid shows a partnership between teachers and technology companies, providing training to teachers to enable them to ‘roll-out’ technology across their schools. This reaches more students and facilitates deeper learning through iteration and practice.

In the third kind of partnership teachers work with companies with existing EdTech products to develop with/for them, lessons and teaching resources to make best use of these products. Teachers help EdTech companies find the ‘best fit’ within the curriculum, help these companies understand the constraints under which schools operate and provide a test pit for their products with real students in real schools that allows for more meaningful feedback and hence future improvement of learning.

Finally, the tip of the pyramid shows the ideal partnership; one in which educators and technology companies work together to research and develop a technology product and the educational resources to go with it before it goes to market to ensure the ‘best fit’. Such collaboration, although uncommon, is extremely enriching to both and both emerge with a much greater understanding of the world in which each works.

Makerspaces

Makerspaces can provide both an invaluable space and an invaluable opportunity to knit together the often, disparate strands of EdTech in schools through partnerships with Industry Leaders.

Makerspaces facilitate hands on learning, providing students with access to tools and technologies to;
(i) Bridge ‘Digital Gap’ providing training in Industry 4.0 skills
(ii) Promote creativity, resilience and innovation
(iii) Prepare students for the careers of the future.

EdTech Partnerships: building the pyramid.
This Pyramid of Partnerships has traditional enrichment visits at its base. Enrichment visits suffer from being ‘one off’ events and typically not whole school and so many students, often our most disadvantaged ones, can be left behind.

The second layer of the pyramid shows a partnership between teachers and technology companies, providing training to teachers to enable them to ‘roll-out’ technology across their schools. This reaches more students and facilitates deeper learning through iteration and practice.

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Caroline Keep TES award Penkeath High School Warrington. New teacher of the year 2018 in the TES Schools Awards
Partnerships

VR / AR Where to start?
There are three resources, the “Growth Headset” report by Dr James Mannion evaluating research in 8 schools over 6 months’ use, Mark Steed’s TES article that clearly articulates the potential and how to get started and Nathan Gaydhani - “VR /AR Where to start?”

There are great stories of collaborative projects between schools and EdTech Companies on the ISCDigital website.

Making Best Practice Standard and Lasting
In the mid-1990s, a group of British Secondary Schools decided to work with three professors in a partnership to create High Reliability Schools, called HRS. This article summarises the successful short and long-term work of the Secondary Schools of Port Talbot and Neath in Wales. More information search Port Talbot High Reliability School.

THE EdTech50 Schools – sharing success stories
A wonderful example of partnership between educational organisations, EdTech companies and schools to signpost and celebrate schools which are developing successful digital elements that make a difference to the learning of our students. www.ednfoundation.org

Resources

So many partnership resources:

- EdTech50 Schools and yearbooks
- Naace ICT Mark
- Education Foundation website
- ISCDigital Blogs and resources
- Apple ADE, resources and RTCs
- Microsoft MIEE, resources and Showcase schools
- Google EI, resources and Showcase schools
- DQ Institute, OECD, WEF, UNESCO Framework

Anything missing here please let us know.

How can you get involved?

Give us feedback on this guide, the resources you have used and your most valuable partnerships. Offer to share the stories of your digital journey.

Let us know what resources the Online version of this guide should have and what your school would benefit from. Contact: www.iscdigital.co.uk
References and links

1. Create an inclusive to digital develop DQ -
   • Google for Education Transformation Center Framework
   • Microsoft K12 Education Transformation Framework
   • Apple Education website
   • TPACK
   • SAMR
   • DFE: Realising the potential of Technology in Education

2. Actively Manage success by tracking project progress.
   • UNESCO Best Practice Case Study on Denbigh High School
   • Unesco worldwide case studies
   • EdTech50 schools tell how they have achieved this in the EdTech Awards Guide.
   • Triple E framework
   • Mark Steed Blog and Slideshare Re-Opening After Lockdown

3. CPD needs to be ongoing.
   • The Chartered College of Teaching new publication
   • Steve Molyneux Holistic Strategy Is Key to Teaching & Learning Transformation
   • David Fuller Blog Post.
   • Chartered College Impact Journal

4. Seamless, and Secure Infrastructure with in-house or external support.
   • ISC Digital Community of Experts
     i) Printing
     ii) 1-2-1 and BYOD
   • Matt Budgen Future Procurement
   • ETAG 2014 and FE TAG 2016 devices belongs at the heart of education strategy.
   • Device Dilemma Richard Grice Director of Digital Strategy has written a great blog to help schools through the difficult choices they need to make on choosing the right device solution for their school.
   • UCL - Buying the right EdTech for your school

5. Safeguarding of children, data, systems at every step.
   • Gary Henderson 6 Cyber-safety tips
   • SWGfL - Advice and templates for creating an Effective School Safeguarding Strategy.
   • ParentZone - Parent Zone are the experts in digital family life.
   • Updated Online Safety resources in Thomas Lange’s Wakelet to safeguard your vision
   • Thinuknow.co.uk

6. Building Partnerships helps schools reach.
   • EdTech50 Schools, Education Foundation, JSCDigital and Chartered College, created EdTech50 #Schools Download the EdTech Awards Guide here.
   • THE EDTECH 50 SCHOOLS Q&A with TY GODDARD
   • BluTick - Simon Armitage and Rob Percival’s great example of a local partnerships to solve a pedagogic or curriculum problem.
   • Growth Headset report by Dr James Mannion
   • Mark Steed’s TES the potential and how to get started with VR
   • Nathan Gaydhani - Its not too early to start using VR.
   • Caroline Keep MakerSpaces in Education
Developing Digital