Inverclyde council

Report To:	**Education & Communities Committee**	**Date:**	**2 November 2021**
Report By:	**Ruth Binks Corporate Director Education, Communities & Organisational Development**	**Report No:**	**EDUCOM/46/21/NG**
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Subject:	**Education Services Digital Learning Strategy 2021-2028**		

1.0 PURPOSE

1.1 The purpose of this report is to inform the Education and Communities Committee of the context for and content of the new Digital Learning Strategy identified by Education Services.

2.0 SUMMARY

2.1 In response to the challenges faced during the last 18 months, Education Services and its school and ELC establishments has had to redesign the way it delivers learning and teaching. Lockdown of school buildings, the need for keyworker hubs and the increased requirement for staff and pupils to be working from home have all created different challenges to be overcome.

2.2 A working group, comprised of staff from across all sectors of education, our learners, its partners and Education Scotland colleagues, was set up to look at the challenges the service faced during COVID-19 and to identify a comprehensive digital strategy moving forward. The Digital Strategy is attached as an appendix to this report.

2.3 The Strategy identifies and develops four key development priorities linked to the key theme of 'Developing confident learners capable of living and working in a digital world', these being:

- Priority 1 – Leadership of Digital Improvement
- Priority 2 – Digital Learning and Teaching
- Priority 3 – Digital Infrastructure and Digital Access
- Priority 4 – Digital Skills Development and Career Long Professional Learning

2.4 Through discussion with staff, learners, partners and Education Scotland colleagues, the resultant Action Plan outlined in the strategy appendices, contains a number of prioritised actions, scheduled over a medium to long term basis covering these broad aspects:

- Interactive whiteboard replacement programme
- Longer Term refreshment of digital panels
- Renewal of digital devices for education staff and flexibility of working
- Response to Scottish Government plans for devices for every child
- Transfer of operational working to a cloud based approach
- Creation of a programme of digital skills development for staff and learners
- Use of ICT to support high quality learning and teaching.

2.5 Each of the action points identified in 2.4 has resource implications and Education Services proposes to reallocate available budgets where possible to support the strategy and also to work in partnership with ICT to identify pressures in the budget moving forward. The national move towards a device for every pupil will inevitably impact on the requirements for the core estate going forward but until more detail is available the exact impact cannot be known.

3.0 RECOMMENDATIONS

3.1 The Education and Communities Committee is asked to approve the following aspects of the digital strategy:

- the funding required to complete the replacement of life expired interactive whiteboard equipment across the Inverclyde School Estate and the longer term refreshment programme for digital display equipment.
- that the funding for transitioning towards the provision of laptops for teaching staff be remitted to the 2022/23 Budget process
- that further work is undertaken to review and future proof the core ICT estate in schools, taking into account the current needs for curriculum use and the future provision of laptops for pupils
- that officers continue with the transition towards operating on a virtual network, supporting the remote management of devices and making greater use of the Microsoft 365 licence

4.0 BACKGROUND

4.1 Education Services, in responding to the Covid-19 challenges faced over the past 18 months, has had to revisit many of its operational functions and deliver teaching and learning in a more flexible and responsive way. This work was in part, only deliverable through the use of staff personal devices at home and the use of a series of online digital platforms, heavily dependent upon the use of cameras and microphones.

4.2 Inverclyde Council has installed, as part of their School and Early Years establishment refurbishment/rebuilding programme, a range of display technology to support learning. Originally these were interactive whiteboards with attached projection. In more recent work, Promethean Digital Active Panels have been put in place, reducing the need for replacement projectors and/or lamps/bulbs when faults arise.

4.3 A working group, comprised of staff from across all sectors of education, our learners, its partners and Education Scotland colleagues, was set up to look at the challenges the service faced and to identify successful approaches used to support blended and remote learning. The group were then asked to consider and highlight the key features of a more flexible, responsive and sustainable approach to delivering teaching and learning, using ICT to enhance and support improved attainment, now and in the future. These features were also based upon best practice shared across Scotland.

4.4 In March of 2020, the Education & Communities Committee approved proposals to commence the phased replacement of interactive whiteboards across the Inverclyde School Estate. The first phase of this replacement was completed in session 2020/21, with new digital panels installed in 5 primary schools and 3 secondary schools completed over 2 separate contracts. In conjunction with this activity the final School Estate Management Plan major projects and 1140Hrs Expansion work addressed the provision of new digital panels in a further 2 primary schools and various early years' establishments.

5.0 PROPOSALS

5.1 **Digital Strategy**

5.1.1 Education Services, aware of the wider Council digital access strategy, has considered its operations and the different methodologies required to deliver remote learning and blended learning. Ultimately, in response to the digital access strategy, a new service Digital Learning Strategy has been created. It is designed to improve the ability of ELC establishments and schools to work more responsively, flexibly and effectively through the use of digital devices and platforms.

5.1.2 The strategy seeks to ensure that our children and young people have the opportunity to build and use their digital skills throughout their learning, increasing their confidence and maximising their opportunities to fully prepare for life, learning and work in this digital age.

The Strategy identifies and develops four key development priorities linked to the key theme of 'Developing confident learners capable of living and working in a digital world', these being:

- Priority 1 – Leadership of Digital Improvement
- Priority 2 – Digital Learning and Teaching
- Priority 3 – Digital Infrastructure and Digital Access
- Priority 4 – Digital Skills Development and Career Long Professional Learning

5.1.3 Through discussion with staff, learners, partners and Education Scotland colleagues, the resultant Action Plan outlined in the strategy appendices, contains a number of prioritised actions, scheduled over a medium to long term basis covering these broad aspects:

- Interactive whiteboard replacement programme
- Longer Term refreshment of digital panels

- Renewal of digital devices for education staff and flexibility of working
- Response to Scottish Government plans for devices for every child
- Transfer of operational working to a cloud based approach
- Creation of a programme of digital skills development for staff and learners
- Use of ICT to support high quality learning and teaching.

5.2 Interactive Whiteboard replacement and longer term refreshment of digital panels

5.2.1 Inverclyde Property Services prepared a summary of the position across the estate in late 2019 from which the proposals in the March 2020 report to the Education & Communities Committee were developed. At that time there was an opportunity to align the implementation of a replacement programme with the completion of the last remaining School Estate Management Plan major projects and the possibility of part funding from a review of the School Estate Funding model.

5.2.2 £700k was made available for the initial phase through £400k from the SEMP lifecycle fund and £300K from the SEMP funding model as agreed as part of the March 2020 budget setting process. This allowed the first phase of the replacement programme to be carried out. Due to the challenges associated with the Covid pandemic the works were progressed over two contracts with 5 primary schools completed in October 2020 and 3 secondary schools completed February to March 2021 within the budget allocated.

5.2.3 The cost of digital equipment is also being impacted by the Covid 19 pandemic and other economic factors and as such an element of contingency will require to be included in any cost estimates for future tendering activity. The estimated cost to complete the replacement programme of interactive whiteboards is a frther £0.7million The proposals for the continued programme of replacement is identified in more detail in **Appendix A** of the digital strategy.

5.2.4 Completion of this replacement programme will allow Education Services to then focus on a longer term digital panel refreshment programme, moving forward in the future. This cycle of refreshment will be based upon the reporting of faults and the identified normal end of life cycle of these devices (warranty purchased with the devices fixed at 5 years).

5.2.5 All technology has an identified lifespan after which the manufacturers and suppliers may not be able to support or indeed replace faulty parts. The current ActivPanels carry a 5 year warranty cover which ensures that repairs/replacement is carried out should any faults be reported under the terms of that warranty. The overall replacement cost of all the digital panels at current prices is £1.85million and funding has been identified as set out in the Financial Implications section.

5.2.6 The key aspect of the proposed funding is the opportunity to employ a permanent supply pool of teachers for primary school using recently announced recurring Scottish Government funding. Due to this the service has been able to reduce the central supply budget that will be required by £150,000 and reallocate this sum to ICT and specifically the replacement of whiteboards and digital panels.

5.3 Renewal of digital devices for education staff and flexibility of working

5.3.1 For teaching and key administrative staff within schools and ELC centres, the ability and flexibility to work remotely from home on a council provided device was not in place for the start of the first Covid-19 lockdown. Schools use of desktop devices, imaged specifically for use on the school internal networks, simply did not allow these devices to be given to staff and be used at home. Staff not able to work from home were identified early on in this first lockdown but it took many months before laptop devices located across our establishments could be re-imaged and then connected to the appropriate VPN for staff to use at home.

Changing Covid circumstances later required these same devices to then be brought back into ICT once again to be cleansed and re-imaged, ready for use by pupils in schools as part of their learning. This added considerably to the workload faced by our ICT Services colleagues.

5.3.2   The digital strategy provides a direction of travel to provide teaching staff with a laptop. **Appendix B** outlines the aspiration and direction of travel but it is accepted that this is not a straightforward task and will require the service to consider the totality of the core provision across schools. Further work on the budget requirements for this needs to be undertaken and this needs to be done in parallel with national work on the provision of computers for schools as outlined in section 5.3.3 below

5.3.3   Education Services will now carry out a full review of the core computer provision across our school and ELC establishment estate, to identify cost implications and efficiencies of changing towards a laptop based approach. The services will also work with colleagues from Finance and ICT Services to establish a more comprehensive costed asset strategy prior to the future budget consultation in early 2022.

5.4   Response to Scottish Government plans for devices for every child

5.4.1   Key to moving towards a more responsive and flexible operational system, is a need to now redesign the current provision of core digital devices in Education Services establishments. Education establishments are allocated a core set of computer devices, designed to reflect number of staff and pupils in their school and the delivery of specific curriculum options. These computers have been included in the cyclical refreshment processes carried out by ICT Services.   Over the last few years, a few schools have sought, within their own allocated budgets, to add to the number of computers available for pupils. The cost of these additional devices requires an additional support charge for licences, extended warranty, support and cleansing/recycling at the end of their life, to be paid by establishments.

5.4.2   The strategy identifies the need for Education Services to now review fully, the provision of the core computers in our establishments. This however needs to also take into account the Scottish Government commitment to provide each child with a digital device, which can be used in our schools and at home. This commitment was recently restated in the government document, Education Recovery: Key Actions and Next Steps, published on 5 October 2021. As outlined above this commitment may, provide over a period of time, efficiencies within the core device provision across our schools and allow Education services to allocate the budget to enhance the provision for teachers.

5.5   Transfer of operational working to a cloud based approach

5.5.1   All education staff who wish to make use of Council devices outside of our education buildings are currently unable to access internet and resources due to the networked image and linked firewalls that are in place. Staff are required to be given specific VPN (Aventail/Sonicwall) access in order to get this level of access and this has to be setup by our ICT Services team for each individual. Licences have an associated cost for Education Services on an annual basis. In order to provide more teaching and admin staff with the flexibility to work from home or at another location, Education Services would need to substantially increase the number of VPN licences held and the associated costs would similarly increase. This same flexibility is identified within the wider council digital access strategy.

5.5.2   A solution of moving to a cloud based approach where a VPN is not required, would provide greater opportunities in the long term to work collaboratively online, improve access for staff and learners to learning resources, provide secure storage for files and documents and the ability to setup, manage and support devices remotely. All of the above benefits will bring significant efficiencies as the number of digital devices used by staff and pupils increase.

5.5.3   A first step to move towards this is to work with ICT Services to prepare for:

- fuller use of our current Microsoft 365 licence
- security setup of both the OneDrive and SharePoint applications as part of that licence
- use of Azure Intune to look at management of our device setup linking the use of this Education licence to changes at the wider corporate network level for communication and collaboration purposes

More detail on the change to a cloud based approach is identified in **Appendix D** of the strategy.

5.6 Creation of a programme of digital skills development for staff and learners and the use of ICT to support high quality learning and teaching.

5.6.1 All of the above changes ultimately seek to further improve the quality of teaching and learning and increase access to digital learning opportunities across our education establishments. The cultural and operational transformation that is identified in the Digital Learning Strategy is built upon the development of digital skills, both for staff and learners.

5.6.2 The last 18 months have seen a dramatic increase in staff involvement in professional development activities, particularly those with a digital learning focus. Their interest and involvement has continued into session 2021-2022. Through the strengthened support for digital champions and increased use of online platforms, the strategy aims to enable access to a wide range of partner provided training.

5.6.3 As part of an initiative to look at how schools can remotely engage children in their learning, a pilot of a change to the classroom setup has been started in St Columba's High School. This will focus on looking at:

- How pupils, not able to engage directly in a classroom, can link remotely with their lessons.
- How consortia students can participate in lessons with a reduced need for transportation to and from other schools.
- How learners most disengaged from education can be supported in their learning as part of their planned re-introduction to school life and work.
- How digital delivery of CLPL can be extended to those not based within the school.

More details are contained in **Appendix E** of the digital strategy.

The digital learning strategy seeks to provide support for staff and learners to ensure the full and consistent coverage of the identified digital outcomes and experiences. It also directs staff to consider the use of digital pedagogies to enhance learning opportunities. Schools and staff are encouraged to look towards gaining accreditation and recognition for their involvement in this skills development programme. Schools will be encouraged to participate in the National Digital Schools Award, providing opportunities for them to audit and review their progress in delivering high quality teaching and learning through the effective use of ICT.

6.0 IMPLICATIONS

Finance

6.1 Financial Implications:

In terms of the funding available for replacement of interactive boards, it should be noted that an annual budget of £150,000 has been identified from the Teacher Supply budget. Over the 7 year replacement cycle, this will fund approximately half of the total replacement costs. It is assumed that the remainder of the funding required will come from the Education Lifecycle Capital Fund.

The proposal to provide each teacher and some education staff with a lap top will have a significant cost attached on the basis that laptops are more expensive than desk tops and have a shorter life. This aspect of the strategy will be developed by officers and considered against the range of other budget pressures as part of the 2022/25 Capital Programme.

One off Costs

Cost Centre	Budget Heading	Budget Years	Proposed Spend this Report	Virement From	Other Comments
		2021-2028	£1,850,000	Teacher Supply budget and Education Lifecycle fund	Phased replacement of interactive whiteboards and ActivPanels. £915k of the total required funding will be prudentially borrowed from £150k per annum identified from the Teacher Supply budget. It is anticipated the remaining funding will come from the Education Lifecycle Capital fund.
Education H.Q.		2021-2022	£13,240		Initial setup of Microsoft 365 licence operations to allow for future cloud based access. Costs to be contained in the 21/22 projected Service underspend

Annually Recurring Costs/ (Savings)

Cost Centre	Budget Heading	With Effect from	Annual Net Impact £000	Virement From (If Applicable)	Other Comments
		2021/22			

Legal

6.2 No implications

Human Resources

6.3 No implications at present although the continued increase in ICT devices is likely to result in the need for greater technical support in the future.

Equalities

6.4 Equalities

(a) Has an Equality Impact Assessment been carried out?

✓	YES
	NO – This report does not introduce a new policy, function or strategy or recommend a substantive change to an existing policy, function or strategy. Therefore, no Equality Impact Assessment is required

(b) Fairer Scotland Duty

If this report affects or proposes any major strategic decision:-

Has there been active consideration of how this report's recommendations reduce inequalities of outcome?

	YES – A written statement showing how this report's recommendations reduce inequalities of outcome caused by socio-economic disadvantage has been completed.
✓	NO

(c) Data Protection

Has a Data Protection Impact Assessment been carried out?

	YES – This report involves data processing which may result in a high risk to the rights and freedoms of individuals.
✓	NO

Repopulation

6.5 No impact

7.0 CONSULTATIONS

7.1 Head teachers and senior managers of every secondary school and identified Primary Schools were asked to submit their views on the proposed whiteboard replacement programme.

All of our establishment managers, school ICT co-ordinators, PEF Digital Literacy teachers and Digital Champions groups were also involved in identifying and discussing all aspects of the strategy as it was being compiled. Partners from our libraries and CLD services were also part of the working group identified to help strengthen and reflect the wider council approaches in supporting family learning.

Pupils from all Primary and Secondary schools were invited to be part of the consultation process. The Education officer spoke with groups of pupils from P4 – S6 in the course of the creation of the strategy. These discussions reflected their thoughts on aspects such as access to devices, difficulties with connectivity, their experiences and challenges in using technology throughout the Covid lockdown periods and the range and quality of support and advice that was available to them from our schools.

Parents were consulted through the online Parent Council representatives meeting. They welcomed the work being done to provide more online support and resources for family learning.

8.0 BACKGROUND PAPERS

8.1 Replacement of Technical Department computers and interactive whiteboards in Education establishments – Agenda Item No.16 Education & Communities Committee 10th March 2020.

8.2 Education Services Digital Learning Strategy 2021-2028.

Inverclyde Council

Education Services Digital Learning strategy

2021 – 2028

Developing confident learners capable of living and working in a digital world

Inverclyde
council

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Appendices

1   Executive Summary

1.1 This document sets out the main strategy priorities for 2021- 2027.

1.2 The Strategy builds upon developments identified in the wider Inverclyde Council Digital Strategy 2021-2024. It also reflects the changes started around school and ELC establishment digital infrastructure and connectivity from 2016 - 2021.

1.3 The Strategy seeks to ensure that our children and young people have the opportunity to build and use their digital skills throughout their learning, increasing their confidence and maximising their opportunities to fully prepare for life, learning and work in this digital age.

1.4 The Strategy seeks to respond to the Scottish Government commitment to provide access to digital devices for every Primary and Secondary pupil.

1.5 The Strategy aims to improve access for education staff to digital skills development opportunities, current technologies and strengthen the use of ICT within the delivery of High Quality Learning & Teaching.

1.6 The Strategy identifies and develops four key development priorities linked to the key theme of 'Developing confident learners capable of living and working in a digital world', these being:

- Priority 1 – Leadership of Digital Improvement
- Priority 2 – Digital Learning and Teaching
- Priority 3 – Digital Infrastructure and Digital Access
- Priority 4 – Digital Skills Development and CLPL

1.7 The Digital Learning Strategy recognises the significant impact of the Covid pandemic on the way Education Services has had to restructure its operations and the delivery of learning and teaching. It aims to build on and learn from those experiences.

1.8 The resultant Action Plan outlines in the appendices contains a number of actions, scheduled over a medium to long term basis covering these broad themes:

- Interactive whiteboard replacement programme
- Longer Term refreshment of digital panels
- Renewal of digital devices for education staff and flexibility of working
- Response to Scottish Government plans for devices for every child
- Transfer of operational working to a cloud based approach
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2   Introduction

"The delivery of high quality digital teaching and digital learning experiences for young people within our schools and to learners at home has never been so important. Covid-19 has changed all our lives. It has ably demonstrated that the ability to use digital skills is now fundamental to how we work, learn and interact with others. The use of technology in education has increased dramatically across Inverclyde over the past year, responding to the need to deliver learning in both blended and remote approaches.

School building closures, the delivery of supported learning for key groups of children within our school hubs, and periods of isolation for staff and children have highlighted the need to develop the digital literacy of staff and learners and reinforced the use of digital technologies to support learning. Staff across Inverclyde's schools and Early Learning Centres have shown great professionalism in continuing to engage their learners through new and imaginative ways of using digital technologies. The sharing of strong practices has also been enabled using a range of online platforms for staff within and across Inverclyde establishments. This collaboration has extended to working with colleagues in other local authorities and at a National level. This has helped strengthen the National approach to learning digitally.

It is evident that we need to build upon the developments we have made in the use of technology as we move forward, to ensure our children and young people continue to experience high quality, engaging and motivating learning experiences both in school and when learning at home. It is important that our staff continue to collaborate with others for their own professional learning and to strengthen our capacity to develop the digital skills within our children and young people."

Ruth Binks, Corporate Director

"The benefits and challenges of living in an increasingly digital world, have become all too apparent in recent months. Access to digital technology is now an intrinsic part of how we all learn, communicate, share and live in the world around us. It is also clear that this use of digital technologies has become key to the future economic prosperity of our country and for the way we will work in future years. The use of digital skills is importance for adults, but particularly so for children and young people for whom a digital world is all they have ever known, we all have a responsibility to respond to these changing times through the way we engage our young people with learning and life.

In this Digital Learning Strategy, it is important to be clear that digital learning and teaching has to be the responsibility of all. Improved outcomes for all learners will not happen without a change to the underlying digital culture in our schools, ELCs and community partnerships.

This strategy is focused on supporting schools and ELC establishments to be ambitious, innovative and forward thinking about working together to make a difference to all children and young people, taking care to address inherent inequalities, inequity and barriers which children may experience.

There are shared challenges for us all in addressing the impact of poverty, inequalities of access, disadvantage or disability and the key strategies outlined here have the potential to empower schools to rethink how we approach digital literacy and learning through an equity lens. Through being pro-active and ambitious for all staff, learners and their families to engage with digital learning and teaching, we can support each other to make a real difference to the lives and futures of the children in our care."

Finally, I would want to pay tribute to Norman Greenshields, Education Officer, who has been the mastermind and architect of this strategy, developing this over many years with a significant amount of work being done over the past year. As he prepares to leave the service for retirement at the start of 2022, Norman leaves behind a strong legacy in this strategy which will serve future generations of Inverclyde young people very well.

Michael Roach, Head of Education

Throughout this document, a series of hyperlinks lead to the information highlighted. Click on the symbol to access the link, whenever you see it.

3   Our Rational for Change

This strategy is an action plan for the future, supporting change within Inverclyde schools and Early Learning Centres. It will helpfully contribute to the wider Inverclyde Council Digital Strategy and impact upon the way we deliver teaching and learning in a more flexible and responsive way. The development of this strategy has been supported through engagement with colleagues across services including the Early Years team, school staff, Education & Communities partners and pupils and their parents.

This Digital Learning strategy recognises that:

- In all teaching, relationships are the most important factor.
- The changes to all our lives through Covid-19 are ongoing and necessitate a fundamental re-think of effective engagement with learning and teaching, and of support for the health and wellbeing of ourselves and our young people.
- There is a need to build upon recent progress, working with staff, learners and families to embed a culture of digital learning and teaching across the curriculum.
- Significant inequity of outcome exist in the life chances of children and young people, with the most disadvantaged and vulnerable having life chances that are significantly poorer than the most advantaged. For this reason the needs those who are impacted by poverty should be prioritised to prevent gaps widening further.
- Access to appropriate devices, connectivity and platforms for engagement is important for success.
- No improvement in practice is sustainable without a change in the underlying culture.
- A commitment to continuous professional learning and the investment in that learning is the foundation of improvement.
- Working together and sharing knowledge and practice across Inverclyde, the West Partnership and across Scotland will support our longer term aims.

Our strategy has identified areas of support required to develop good digital skills for all of our learners. This is summarised in the following table.

Supporting our System

Supporting all our children, young people and their families

Digital technologies and the skills gained throughout a young person's learning journey are crucial to the way in which they engage with learning, and with the world. Digital skills are key enablers for young people to access the world around them, supporting learning from any location without time restriction, giving instant access to the world of information and communication. They impact and inform the decisions they will make for their futures.

Learners, and their families, need support from us to develop confidence and skills in learning independently and collaboratively. This learning needs to be interactive, engaging and targeted at what learners need to do to progress and improve. Teaching and learning about, and through, a wide range of digital technologies develops independence and encourages innovation, creativity, sharing and collaborating which is impactful on learner outcomes. To enable and enrich learning, where ever it happens, we need to ensure equality of access to appropriate technology and devices, and high-quality pedagogy which makes the most of these opportunities. This cultural change also requires us to ensure that our parents and families have a sound understanding of the approaches we are using and are able to support their children overcome any technical challenges that may arise.

Supporting Additional Support Needs

All children and young people have the right to get the support they need to reach their full potential. Digital technologies offer significant possibilities for those with additional needs and with a commitment to improve, we can reduce barriers which face people with additional needs, through the planned use of digital technologies.

Well planned, creative use of digital assistive technologies can improve equity of access for individuals with additional needs and provide opportunities for greater inclusion and increased independent learning and participation in the life of the community.

Supporting Early Years

The keys to all successful early learning are the experiences, interactions and environments we provide for our children. Understanding and development of digital skills should start when our children enter learning. Many of these children will already have developed skills, through the exploration of home devices and from playing with digital toys.

Learning for our youngest learners is greatly enriched through well planned digital experiences where children are learning about technology and learning through technology, in its widest sense. Inverclyde has established practices of play pedagogy and outdoor learning, all of which can be further enhanced with the planned use of digital technologies.

Supporting staff

Digital technologies and the pedagogies which they support are of central importance for staff delivering high quality experiences which engage learners and reduce barriers for young people. The digital literacy of staff is pivotal to the successful engagement with digital technologies and the rich opportunities for learner engagement, achievement and equity this brings. Developing skills in this area is the responsibility of all of us and good access to high quality professional learning is an important strand of this strategy.

A greater understanding of the tools available, as well as flexible access to the key resources they create, will enable Inverclyde staff to effectively contribute towards the sharing of best practices and to ensure that the families of the children they teach share that same understanding of the key digital skills that children need.

4   Key considerations informing this strategy

It is clear that there are many existing practices and approaches which work well in our educational establishments and can be maintained. Others can be improved or need to be replaced. These include:

4.1 Development of a digital learning culture

A robust, shared digital learning culture will support schools in providing an equal opportunity in learning for *every* pupil regardless of their needs or relative level of disadvantage. Well planned digital learning and teaching which takes account of the specific needs of learners can:

- provide equality of learning for all;
- support the access to learning anytime, anywhere on any device;
- widen subject choices and support access to specialist learning;
- bridge gap with further education and employers;
- allow for more partnership working;
- create accessible learning;
- promote learner motivation and engagement;
- support enhanced opportunities for learners with additional support needs;
- improve educational outcomes and learning across a range of subjects;
- Facilitate learners to take control of their learning;
- Support ongoing, uninterrupted learning for young people;
- Reduce workload for staff and facilitate higher impact for lower input.
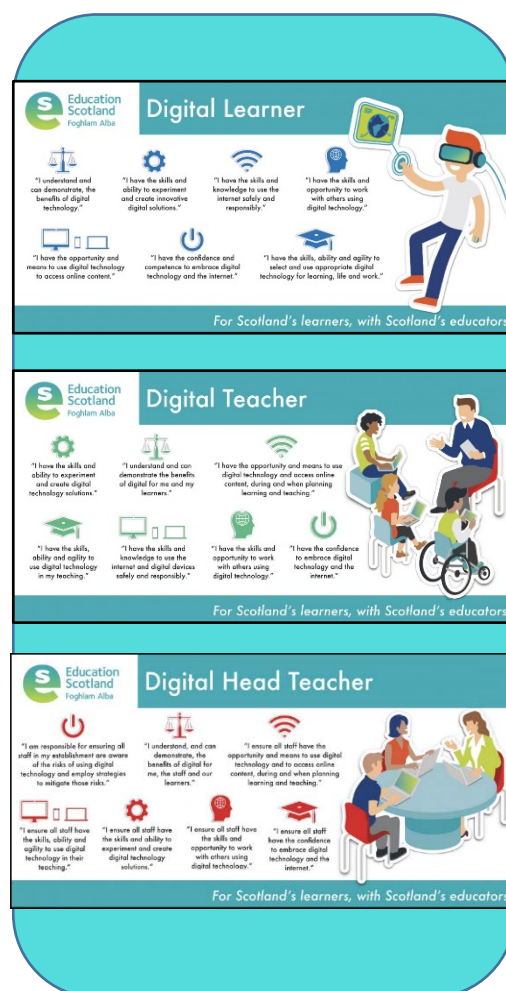
Education Scotland have established a clearly defined vision of the roles of learner, teacher and head teacher and local authority in creating the culture which encourages and supports digital skills development.

4.2 Use of Glow and MS Office Licences

All pupils and teachers currently have free access to Microsoft Office 365, provided through Glow Scotland encased in a safe and secure online educational environment.

Glow is accessible anywhere, anytime, on any internet enabled device. It allows learning and teaching to extend beyond school. It provides a platform for pupils to work collaboratively with others, complete coursework, work on homework, and gain valuable ICT skills essential for further education and the work place. It allows teachers to share content, conduct live video teaching and meetings, set quizzes, assessments and assignments in a secure and consistent platform.

Inverclyde have further developed the use of O365 over the past year through a programme of training, support, guidance and the work of the Digital Skills Team, and there is significant online training available on the Microsoft Educator website and on Education Scotland DigiLearn . Other platforms are available, but this strategy addresses the continued promotion and development of O365 as the primary platform for supporting digital learning. This is based on consideration of a range of factors, including:

- The technical capabilities of different systems are broadly comparable.
- All other areas of Inverclyde Council use Microsoft 365 therefore support and management of this is a more efficient solution.
- Inverclyde schools have committed significant resource, time and energy in learning, using and sharing the Microsoft 365 as a teaching platform, particularly during the pandemic period.

4.3 Online Learning and Online Teaching

It is important to recognise that online learning and online teaching are not the same thing, but they are both important elements in a digital learning culture.

Online learning is a central part of digital learning and is an important feature of the range of approaches schools take to engaging young people but used in isolation it has significant limitations. It can be perceived by some as being a passive process where young people receive work uploaded through a platform and complete that work with communication managed through an online platform such as Teams, Learning Journals, Seesaw or email. This may be assignments, quizzes or tests, video lessons and links to online resources. Well planned activities which promote learner independence however can be very creative and impactful, where the teacher continues to provide ongoing feedback, support and additional learning.

Online teaching is an interactive, face to face learning experience where young people are part of a learning community. It is responsive and reactive to pupil dynamic and pupil needs. Online teaching is, by definition, more engaging and enriching than solely online learning but is just a part of the approaches we take to learning and is not the full picture. Online "live" teaching needs to be considered as part of digital learning culture and where it fits within planned learning and how it supports young people's particular needs and situations must be part of the planning.

In Inverclyde we have guidelines in place to support schools prepare for both blended and remote learning, which have been developed in response to the pandemic experiences. Together with West Partnership collaborative working and access to the National e-learning offer, our staff have, embraced and delivered a strong response to these challenges. It is recognised however, that this would not have been possible without our staff making use of their own personal devices.

The EIS have produced guidance around online learning which is available to their members and our guidance aligns with these principles. The authority continues to assist each school in developing its own local culture around online support for learners and it should be acknowledged that no one approach will meet the needs of all learners or their families, so a variety of options will be essential to supporting all learners to effectively engage.

Confident staff who engage positively with this strategy and the professional learning on offer from Inverclyde, the West Partnership and other organisations and agencies across Scotland, will be key to the success of growing our digital learning culture. The DigiLearn site from Education Scotland ⬈ has a wide range of support resources including training and support videos for all O365 apps and teaching and learning guidance, resources and webinars to support digital learning culture. Inverclyde has also sought to support staff through the use of a Glow support Team ⬈ and their InverclydeDigi blog ⬈ , giving quick links to a range of training opportunities and resource suggestions.

This strategy suggests developing these online support resources more fully, to extend the support to families through the use of the new InverclydeDigihelp ⬈ blog.

4.4 Realising the digital ambition in early years

The Realising the Ambition document ⬈, highlights digital learning as an important resource through which young children experience and learn about the world. Children can use any resource to promote their learning through learning about the resource, and then using this knowledge to learn with it. For example, this may be learning how to programme a toy or using a digital camera or using a smartboard.

Our ELC establishments already have been delivering remote learning opportunities during this pandemic in a variety of creative ways, many of which have involved the use of digital technologies. These good practices have been shared or showcased across our ELC sector and beyond. Our challenge is to ensure that these experiences are consistent across all of our ELC establishments.

The Inverclyde Early Years team have identified a Learning Journals package as a key application for the recording of pupil assessment information and for sharing this with parents and carers. This strategy suggests that we take this opportunity to review the fuller digital offer that is provided to our ELC establishments, focussing on learning, teaching and assessment, with a particular focus on the digital skills we are developing both within staff and learners.

4.5   Our school digital infrastructure

Our current Infrastructure is bin the process of being upgraded to support the following bandwidth connectivity going out to all our schools, 40Mbps as a minimum to all Primary Schools and 200 Mbps to all Secondary Schools. This strategy suggests that schools and ELC establishments are continuously being monitored to identify any potential infrastructure requirements, through a programme of digital service improvement meetings, involving schools, ICT services and the schools estate team. As government specifications and standards for school buildings do contains guidance on connectivity and digital infrastructure, it seems logical that these reviews should provide a means of measuring our compliance with these standards.

Ultimately, increasing the bandwidth helps support the media rich content, expected in today's digital learning environment.

Ensuring that staff and young people have access to the devices, platforms and connectivity to engage in digital learning is essential. Together the Directorate and schools will work together on a future strategy that plans for ensuring young people and staff have access to the devices and connectivity they need, where and when they need them.

4.6   Anytime anywhere learning

Anywhere, anytime learning aims to enhance the learning and teaching process by allowing staff and pupils to use the council network to access web-based resources across all of Inverclyde's schools.   Currently, accessing the Bring Your Own Device Wi-Fi network, is challenging to both monitor, support and adapt to the rapidly changing technologies. This strategy aims to review and redesign this access in our schools and community buildings. Given the particular challenges for younger learners, connection for primary schools and ELC establishments will require further consideration to be given to the type, range and accessibility of devices likely to be used.

**4.7   Digital distance learning**

At times a pupil, usually in senior phase, will request to study a course not provided at their school. Currently these pupils are transported to another school as part of our consortia arrangements. However, this may not always be possible, or advisable, due to geographical restraints,

social considerations, the needs of the learner and/or the specialism of the subject. Occasionally this means that the pupil may ultimately opt not study their preferred course. With the impact of covid-19 and related restrictions, travelling between schools has been impacted. Online distance learning opportunities created within schools across Inverclyde and closer partnership working with eSgoil ⬈ and other authorities will increase equity of access to course choice for learners.

As part of this strategy a pilot of a 'remote classroom' setup is planned to take place in session 2021 - 2022. This seeks ultimately to provide an improved model for consortia arrangements, delivering courses to students within their own base school through an online platform. This model may also enable schools to better support more widely, students struggling to engage with their school and learning. Online engagement may help alleviate anxieties and provide a regular connection with their teachers.

4.8   Use of assistive technology
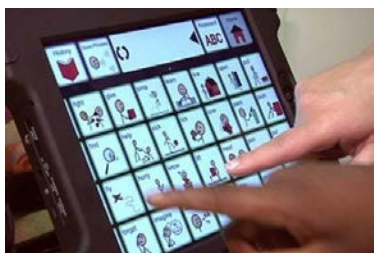
As recognised throughout this framework, learning in a digital format can enhance learning experiences and promote success for all learners. Some learners with additional support needs require more extensive resources and strategies to enable them to access learning and teaching. Currently the need for this type of technology is identified and supported through the ASN Forum referral process. This strategy suggests that Inverclyde Council review their provision of support for these devices and investigate more fully how best they can support these learners and the staff working around them to ensure that their needs are addressed, and they can achieve successful learning outcomes. This may involve enhancing staff knowledge of specialised resources and approaches through training or direct involvement. Recognising that learning takes place on specific applications, this strategy aims to ensure that training opportunities for Clicker software; supporting both targeted needs and whole class learning across all levels, is included within our key training provisions.

Any support for assistive technology normally involves:

- working directly with staff and pupils providing Assessment of Need, recommending assistive technology solutions and in many cases providing the technology.
- identifying areas of strength and development,
- planning, delivering and reviewing support for staff on individual, group and whole school bas

4.9   Cloud based solutions

The age and variety of our Education software estate impacts the resilience and reliability of School and Educational ICT. It also carries a heavy maintenance and resource burden. This not only impacts teaching and the learners experience, it also deflects limited resources and investment away from our progression towards a future, reliable, higher-performing and modern learning ICT environment.

Across Inverclyde Education and Communities Services, Schools and ELCs we must look to the future and consider adopting standardised, cloud-based teaching resources as quickly as possible. Teaching and Learning requirements should be at the forefront of this development and, as such, cannot be driven by ICT colleagues. Schools must lead the discussions on the right and appropriate learning platforms to standardise going forward in order to speed up the retiral and replacement of older solutions. Our Microsoft Office 365 Tenancy does provide possible opportunities to deliver these changes more quickly and at the same time provide mobile device management solutions.

4.10   National support offer for digital learning and teaching

All staff and students within Scotland can access, browse and stream the pre-recorded Education Scotland curated video lessons, on demand using ClickView. This offer is explained here. Staff can share the videos directly with learners or create share or embed codes to use them in learning resources. The site allows staff to design playlists of content for individual students or groups, supporting personalised learning online, and in the physical classroom. Contributing to and helping this resource to grow is covered in Key Action 4.2 of this strategy.

eSgoil was established three years ago by Comhairle nan Eilean Siar *(Western Isles Council)* to support schools across the Northern Alliance Partnership to meet the needs of learners where staff shortages and reduced subject choice was affecting equity.

During the pandemic eSgoil has worked with Education Scotland to contribute to the National Offer of Support for schools across the country by providing live teaching and study support. This support continues to grow with support from all authorities across Scotland, including Inverclyde. Accessing and contributing to this national eSgoil offer is an important part of

priority 4 of this strategy and the development and uptake of distance courses will be important for equity of choice of study for young people. A range of supportive resources for schools on online teaching, including teaching tips, strategies and information for staff and parents are available from eSgoil online here ⬀. Video tutorials on accessing, setting up and using digital learning platforms including Teams and OneNote through Glow are available here ⬀.

Digilearn.scot ⬀ is the main digital training & support area for education staff. Access to courses, resources and recorded webinars for staff is available. The aim is not only to support staff in the use of digital technologies but also to focus upon the pedagogy which underpins its use in class and as part of home learning.

4.11   Involvement in the West partnership regional improvement collaborative

Inverclyde Education Services has been an active participant in the work of the West Partnership since its outset. It is clear that the digital approaches taken over time by our partner authorities have differed both in terms of digital platforms used, access to digital devices and the infrastructure and ICT support that is in place for the educational establishments and personnel.

However it is also clear that the challenges that all schools and ELC establishments have faced over the last two years have demonstrated the benefits of working collaboratively to establish programmes of digital skills development, to strengthen pedagogical approaches to the use of digital technology as part of high quality learning and teaching and to identify technological solutions for supporting increasing numbers of devices within the schools estate.

As part of this strategy, Inverclyde Education Services is committed to working with the West partnership authorities, Education Scotland and to establish a planned approach to:

- delivering digital skills development opportunities for staff and learners
- mechanisms for sharing digital expertise when responding to the challenges of changing digital needs and the Government commitment to devices for Primary and Secondary pupils.
- Sharing examples of best teaching and learning practices across the West Partnership, including the further development of the West Online school.

5   Our digital strategy outcomes

The outcomes identified in our digital strategy recognise and reflect that any successful digital change towards can only be established over a period time and in partnership with our ICT Services and Schools estate colleagues.

Long Term Aim	All practitioners and learners can demonstrate the benefits of digital and have the skills to use and create digital solutions for learning, life and work.			
Key Themes	Empower leaders of change to drive innovation and investment in digital technology for teaching and learning.	Improve access to digital technology for all learners.	Develop the skills and confidence of educators in the appropriate and effective use of digital technology to support learning and teaching.	Ensure that digital technology is a central consideration in all areas of curriculum and assessment delivery.
Medium Term Targets By end of session 2022-23	Ensure that all establishment leaders have an awareness of the digital infrastructure within their buildings and its capacity to support the delivery of high quality learning and teaching.	Inverclyde Council/establishments to equitably provide devices for learners in their schools from P4 to S6 and increase access to devices within schools from pre-school to P3. Those digitally excluded at home will be prioritised. (Subject to expected announcement from Scottish Government)	All practitioners have the skills and ability to experiment and create digital solutions.	Inverclyde Education Services identify effective and innovative digital learning and teaching practice and communicate this to their education establishments and educators.
		A programme of Infrastructure changes to be implemented to enable flexibility of access for digital technologies to support learning and the development of digital skills.	Education and Communities Service have developed a programme of digital help through which practitioners can offer direct advice and support to learners and families.	All learners have the skills and ability to experiment and create innovative digital solutions.
Short Term Targets By end of session 2021/22	Inverclyde Education Services authorities and schools will have established a digital learning and teaching strategy,	All education staff in Inverclyde have access to Glow to enable collaboration across LAs and nationally and can access this from school or home.	All practitioners have the skills, ability and agility to use digital technology in their teaching.	All learners have the skills, ability and agility to select and use digital technology in

	underpinned by a positive attitude towards the use of digital technology within education.			their learning and life.
	Establishment/School leaders have an awareness that digital technology affects the quality of learning and teaching, pupil attitudes and behaviour, and the school community.	All learners in Inverclyde have access to a set of online platforms for learning in and out of school.	All practitioners have the skills and opportunity to work with others using digital technology.	All learners have the skills and opportunity to work with others using digital technology.
	Establishment/School leaders will ensure all staff receive ongoing professional development around digital technology, informing practitioners of courses in professional development, as well as offering general support.	All schools have appropriate digital technology resources, including hardware, software and infrastructure to support digital learning and teaching across all age groups.	All practitioners have the skills and knowledge to use the internet and digital devices safely and responsibly.	All learners have the skills and knowledge to use the internet and digital devices safely and responsibly.
	Establishment/School leaders will ensure their staff are aware of the risks of using digital technology and the strategies they can use to mitigate those risks.	All practitioners have the opportunity and means to use digital technology and access online content, when planning learning and teaching and during lessons.	All practitioners have the confidence to embrace digital technology and the internet.	All learners have the confidence to embrace digital technology and the internet.
	Establishment/School leaders will ensure their staff and parents are aware of and plan for the delivery of the technologies outcomes and experiences that are identified in the BGE curriculum.	All learners have the opportunity and means to use digital technology to access online content.	Schools, learners and their families have a shared understanding of the range of digital skills required to support their learning, life and work both now and for the future.	

These outcomes clearly will only be achievable through the delivery of the action plan identified in the following pages.

The following Key Strategy Actions are *'positively framed'* as completed statements to support review and aid identification of when an action is considered completed.

Priority 1 - **Leadership of digital improvement** Empower leaders of change to drive innovation and investment in digital technology for teaching and learning.		
Key Strategy Actions	**Lead Responsibility**	**Timescale**
1.1 ELC leaders in partnership with Education Scotland will identify a consistent approach to the development of staff digital skills, strengthen pedagogical awareness in the development of digital skills amongst young children and ensure that all children at the BGE early level have a consistent experience of digital learning.	▪ Education Officer with responsibility for ICT. ▪ Quality Improvement manager ELC	December 2021
1.2 Strengthen school leadership team knowledge and understanding of the infrastructure within their buildings and how this can be developed to deliver an enhanced curriculum, where the use of ICT is encouraged and embedded into the planning of teaching, learning and assessment.	▪ Education Officer with responsibility for ICT. ▪ ICT services support (tbc)	Session 2021/22
1.3 Raise awareness of National Digital priorities amongst the leaders of our establishments. This should focus on ensuring equity of access to digital learning opportunities for those most disadvantaged to technology at home.	▪ Education Officer with responsibility for ICT. ▪ Education Scotland colleagues	May 2021
1.4 Ensure that all establishment and cluster plans include aspects of digital development over the mid-long term.	▪ Head of Education ▪ Education Officers	December 2021 and beyond
1.5 Identify a consistent approach to the development of digital skills both amongst staff and learners, which is tied closely to the outcomes/benchmarks identified at all stages.	▪ Education Officer with responsibility for ICT. ▪ Attainment Challenge CMO Digital literacy	June 2022
1.6 Develop the involvement of and support for staff and student digital champions.	▪ Education Officer with responsibility for ICT. ▪ Attainment Challenge CMO Digital literacy	Session 2021/22
1.7 Develop a process of regular review of the digital status in establishments, including identification of infrastructure changes, key focus of schools within digital developments.	▪ Education Officer with responsibility for ICT.	Session 2021/22

Priority 2 - Digital Learning and Teaching		
Ensure that digital technology is a central consideration in all areas of curriculum and assessment delivery.		
Key Strategy Actions	**Lead Responsibility**	**Timescale**
2.1 Establish the focus on digital learning within the authority review/establishment support processes moving forward.	▪ Education Officer with responsibility for ICT. ▪ QIT Team	Sessions 2021-22 and 2022 - 23
2.2 Create a clear vision of what planning for effective digital learning and assessment looks like for establishments, ensuring equity is considered.	▪ Education Officer with responsibility for ICT. ▪ AC CMO Digital literacies	Session 2021-22
2.3 Create detailed Inverclyde digital skills progression pathways for the coverage of digital technologies at BGE. Link to development of play pedagogy and STEM more widely.	▪ Education Officer with responsibility for ICT/STEM.	By Christmas 2022
2.4 Ensure a targeted approach to widening pupil access to digital devices to support learning in class and at home. This should reflect our priorities of digital equity and inclusion.	▪ Education Officer with responsibility for ICT. ▪ CLD Team	▪ Ongoing
2.5 Review of use of digital devices/platforms to support assessment within learning.	▪ Education Officer with responsibility for ICT. ▪ Education officer with responsibility for moderation & assessment	TBC – dependent upon outcome of review of senior phase, in response to the Stobart Report.
2.6 Establish successful classroom management and pedagogical approaches to using 'remote classroom' setup for future training of staff and delivery of aspects of the consortium.	▪ Education Officer with responsibility for ICT. ▪ Attainment Challenge CMO Digital literacy	By October 2021 Pilot case study by March 2022.
2.7 Expand family learning programmes established to mitigate inequity of support at home.	▪ CLD ▪ Attainment Challenge CMO Digital literacy	To be linked to the programme of issuing of devices to learners.

Priority 3 - Digital Infrastructure.		
Our staff and learners have access to the appropriate digital tools and connectivity to improve learning.		
Key Strategy Actions	**Lead Responsibility**	**Timescale**
3.1 Review and revise the process of accessing BYOD networks to ensure that establishments can access the network with a wider range of devices and in a simpler way.	▪ Education Officer with responsibility for ICT. ▪ ICT Services	▪ December 2021
3.2 Ensure that Wi-Fi and connectivity changes are completed for all of our schools estate. Review levels of connectivity in response to government changes.	▪ Phase 1 (Planned update) ▪ Phase 2 (response to government	▪ October 2021 ▪ Review session 2021/22
3.3 Transition from room based approach to allocation of digital devices, to person based approach. (Replacement of desktops with laptops/access for staff to device at home)	• Education Officer with responsibility for ICT.	▪ Phased approach over time in line with refreshment budget.
3.4 Transition to fuller use of Microsoft 365 account, including device management/update	▪ Education Officer with responsibility for ICT. ▪ ICT Services	July 2021-2022
3.5 Transition to cloud based approach, which removes need for Aventail/Sonicwall in the longer term	▪ ICT Services ▪ Education Officer with responsibility for ICT.	TBC – Subject to wider council transition.
3.6 Transition of Promethean Boards to direct internet connectivity to allow for remote management/upgrade and fuller use of all aspects.	▪ ICT Services ▪ Education Officer with responsibility for ICT.	TBC – Subject to redesign of firewalls as part of changes to BYOD and school networks.
3.7 Pilot of Remote Classroom setup. Establish a model of staff training requirements and Technical support	▪ Education Officer with responsibility for ICT.	October 2021
3.8 Review of possible impact of moving to a digital delivery for some aspects of the consortium delivery.	▪ Education officer with responsibility for consortium links. ▪ Education Officer with responsibility for ICT	December 2021
3.9 A full review of the provision of core digital devices will be carried out. It will seek to establish the cost implications of moving from a desktop based provision model to the flexible use of laptop devices by establishments.	▪ Education Officer with responsibility for ICT	January 2022

Priority 4 - Digital Skills Development and CLPL		
Schools make the best use of digital solutions to develop and deliver an equitable curriculum to learners, particularly in the senior phase.		
Key Strategy Actions	**Lead Responsibility**	**Timescale**
4.1 Establish Education Scotland/Inverclyde Education development of Early level digital offer	• Education Officer with responsibility for ICT	June 2021
4.2 Establish cluster approach to use of digital devices at Early Level and how this links to the delivery of technologies outcomes in conjunction with Play and Outdoor learning pedagogies. (Education Scotland project)	• Education Officer with responsibility for ICT	Session 2021-22
4.3 Create a calendar of CLPL for staff which enables staff to build upon their knowledge, including aspects such as Promethean, Microsoft, Thinglink, Barefoot, Wakelet.	• Education Officer with responsibility for ICT. • Attainment Challenge CMO Digital literacy	December 2021
4.4 Raise staff awareness of GDPR requirements around the use of digital applications.	▪ Council GDPR Team	Session 2021/22
4.5 Link digital skills development and CLPL to the collaborative approaches identified with partners	▪ Education Officer with responsibility for ICT ▪ West partnership digital leads	Session 2021/22
4.6 Raise staff and parent awareness of any new National digital strategy	▪ Education Officer with responsibility for ICT	TBC - Awaiting publication of new strategy.

Appendix A

Replacement of interactive whiteboard and refreshment of digital panels programme

Inverclyde Council has installed, as part of their School and Early Years establishment refurbishment/rebuilding programme, a range of display technology to support learning. Originally included in the estate programme were interactive whiteboards with attached projection. In more recent years, Promethean Digital Active Panels have been put in place, reducing the need for replacement projectors and/or lamps/bulbs when faults arise. As with all digital technology, every device has a life span dictated by the support on offer from manufacturers and also availability of replacement parts.

In March 2020, the Council started a programme of interactive whiteboard replacement, ensuring our educational establishments have access to a common set of digital resources and learners have access to high quality learning experiences.

A key priority of our digital strategy is to ensure the completion of that replacement programme and also to deliver a longer term funded replacement programme for digital display technology.

Moving forward, the replacement programme will:

- Complete the removal of the remaining whiteboards and projectors within our schools and ELC establishments
- Provide a phased programme of replacement of ActivPanels as and when the current devices are reaching the end of their lifespan.

The following establishments have been identified as still requiring the replacement of interactive whiteboards.

Sector	School	Number of boards being replaced
Primary		
	Aileymill Primary & Nursery	19
	All Saints Primary	25
	St Andrew's Primary	17
	St Francis Primary	12
	St Joseph's Primary	7
	Whinhill Primary	16
Secondary		
	St Stephen's High School/Port Glasgow High School	71
	St Columba's High School	44
ASN Schools		
	Craigmarloch School	27
	Lomond View Academy	7

The cost of these digital devices is subject to change and so a flexible funding model is required over the long term to support the replacement and refreshment programme. The recent impact of the Covid pandemic has seen fluctuation both in availability and pricing of digital devices. A realistic timescale for the replacement of the above devices is identified at 6 years, subject to the funding being available.

At current 2021 Prices, it is estimated that the cost of replacing the above identified panels is £700000. However the cost of the longer term replacement and refreshment of these digital display devices may be around £1.85 million (including the previously £700000) over time, based on current prices.

The design of digital devices is also subject to frequent change. So moving forward, this programme of refreshment will need to be adaptable and subject to regular review.

Education Services currently have a range of Promethean ActivPanels within our schools and ELC establishments. These devices were first put in place in 2015 in two Primary schools. Subsequent schools estate projects have also ensured these devices have been part of any refurbishment or new build including those in session 2020 - 2021. The refreshment programme therefore can be phased over time. Current warranty agreements for these devices cover a period of 5 years.

Funding & change proposals

The funding for this programme of replacement and refreshment will reflect the two processes required:

1. £700,000 for replacement of existing whiteboards
2. £1.15 million for refreshment of end of life ActivPanels over a 7 year period.

Session	Funding identified	Priority	Comment
2021 - 2022		Continued replacement of interactive Whiteboards	
2022 - 2023		Continued replacement of interactive Whiteboards	Begin phased refreshment of ActivPanels as required
2023 - 2024		Phased replacement of ActivPanels	
2024 - 2025		Phased replacement of ActivPanels	
2025 - 2026		Phased replacement of ActivPanels	
2026 - 2027		Phased replacement of ActivPanels	
2027 - 2028		Phased replacement of ActivPanels	

Appendix B

Renewal of digital devices for education staff

Inverclyde Education Services has had for many years provided an identified number of core digital devices to schools. These historically have been allocated based on the following criteria:

- Delivery of curricular needs (e.g. subject specific needs in secondary schools)
- Roll of school and numbers of staff
- Role and remit of individuals members of staff
- Number of classroom teaching areas

Education Services have also sought to provide the most cost effective digital solutions for the Council. This has resulted in a large number of desktop devices being allocated to schools. Desktop devices provide more robust, longer lasting and memory flexible solutions. These devices have also been mainly linked to our fixed wired education network within the school buildings. Desktop devices however are less flexible in terms of portability and in their ability to be used for online learning activities due to the absence of cameras and microphones. Over time, as schools have sought to develop their learning areas and create more flexible use of devices within classrooms, ICT suites have, in some cases, been replaced by laptop devices connected to our school Wi-Fi network. However the current staff desktop devices have remained in place with a lengthening period between refreshment.

Education Services' response to Covid pandemic highlighted the challenges staff faced when delivering learning to pupils in a remote or blended learning approach. In many instances this was only possible by relying upon the use of the staff's own personal devices at home.

This digital strategy has identified the following principles for the replacement of these desktop devices which will ensure that greater flexibility and efficiency in terms of how and where staff devices can be used, both within school and if necessary, in emergency situations from elsewhere.

Principles

Learning and Teaching		
	1	Teaching staff have access to a device in class which allows online meetings and teaching to occur, in class and if necessary at home. This device needs to have camera and microphones built in in order to deliver live learning.
	2	Staff can take the devices home if required and have access to files and folders. Currently our network setup requires staff to access files and folders through the provision of a virtual private network (VPN). We aim to move to a cloud based approach over time.
	3	Ageing devices which continually run slow are replaced (phased over time)
	4	Teaching time is maximised by reducing time for login to different devices (Primary and Secondary school issue mainly)
Wellbeing Support	5	In emergency situation pastoral care staff have access to SEEMIS information and files/folders to support families
Support for SQA operations	6	In emergency situation staff are able to support the SQA processes both from a teaching and assessment/estimate submission
Daily Establishment operation	7	Key school admin staff, if moved location or working remotely have ability to access normal drives

Refreshment and replacement of the core devices in the future the following has been identified as a challenge by every local authority in Scotland.

1. Replacement of these devices with laptops will require a fuller review of the core computer provision across our schools and ELC estate, to be carried out. This review will take cognisance of the decisions taken by a few schools to purchase additional digital devices and the commitment given by Scottish Government to provide every child a digital device within the lifetime of the current parliament.
2. The review will seek to establish the cost implications of moving from desktop devices towards a laptop based approach, as well as the efficiencies that can be made in responding to the impact of every child being given a digital device. The identified response plan will include details of device replacement/refreshment over a 12 year period. (i.e. two cycles of refreshment based on the 4 year average lifespan of a laptop device).
3. Priority for refreshment will initially be targeted towards teacher devices connected to the ActivPanels/Boards in classes. Desktops will be replaced with laptops and docking stations.
4. All schools have a larger number of teaching staff than individual classroom panels, so a number of laptop devices will be identified for teachers to be able to work in a flexible way across the school and if required from home/elsewhere. It is envisaged this slight increase in core numbers of devices for teachers will be offset by the reduction of other computers required across the school due to pupils having access to their own devices.
5. In secondary schools, a number of key curricular subjects will still need to be supported by devices of a higher specification. It is envisaged that this will only be required where the identified specialist software required to complete SQA coursework and assessment necessitates its use. Areas initially identified include:
    - Graphical Communications and technical design
    - Business administration
    - Computing
    - Music Technology

    It is worth noting that a move to a cloud based and pupil supported devices approach is also expected to change these decisions over time.

6. Some key establishment admin and pastoral care support staff are also identified as priorities for device replacement. This will again replace desktop devices with more flexible laptop computers. This is identified to ensure that the operations of our schools can continue when required in emergency situations and with immediacy of response.

7. Each establishment will be involved in a review of their core digital provision to help support this change. It is not envisaged that every member of staff needs to be in possession of a computer. However, the review will ensure that there is access to appropriate devices within the school for other support staff.

8. The lifespan of a laptop device is anticipated to be around 4 years if looked after well by the user. A phased approach to the replacement of core school devices is necessary therefore in order to ensure that Inverclyde Council has a managed and funded plan over the long term.

9. ICT Services currently operate a refreshment programme for core school devices. The replacement of the devices for staff will be undertaken from this programme.

Appendix C

Response to Scottish Government plans for devices for every child

Inverclyde Council currently awaits the detail from Scottish Government around their commitment to provide all Primary and Secondary pupils with access to devices for learning purposes. This offer may ultimately vary in terms of scope and ambition.

Many councils have already started a process of providing learners with access to digital devices and it is clear that the delivery of that commitment does present long term funding and technical support implications.

Inverclyde Education Services have similarly provided devices to a number of pupils over the course of session 2020-2021 and are continuing to target families identified by schools as needing this provision. Education services have also investigated different approaches that can be taken to maintain this offer over a longer period of time. All solutions currently have challenges around device sourcing, support and setup, online protection and management of faults/repair and replacement.

This strategy highlights the need to wait for further clarity around the government commitment but also has identified a number of strategic changes which will better support the use of different digital platforms, increased number and types of devices, the need for mechanisms to ensure online protection and greater flexibility to support learning 'anytime, anywhere'.

	Aspect	Current position	Future implications
1.	**Infrastructure of schools estate**	As part of work undertaken since 2016, the wireless connectivity has been improved across all of our buildings. Planned work to strengthen and extend the Wi-Fi signal is expected to continue until October 2021.	A large increase in the number and range of devices attempting to connect to our networks at the same time, will require further improvement to be made to our networks.
2.	**Connectivity of schools**	In session 2020-202, ELC and school PEF funding allowed the external connections to be improved and connectivity to be increased. (In some cases doubled).	Again increased numbers of devices all being linked to our networks will require further work to be carried out. In order to meet new Government standards for school connectivity, a further increase in connectivity may be required.
3.	**Infrastructure of networks**	Currently our establishments operate mainly on a wired network, with additional school laptop devices able to be imaged to work on the school Wi-Fi network. Other devices	A move to a cloud based approach will remove the need for the VPN

		need to connect through the BYOD Wi-Fi network. Staff devices currently cannot be used at home without the use of a VPN connection. This does require licences to be purchased and annual support charges to be paid. Schools have an identified GDPR challenge around the storage and security of transfer of more confidential information stored as part of their work. This currently requires access for some staff to two different networks and email accounts.	and the annual costs associated with that. A new pupil network will need to be designed in order to allow devices setup for home use to also work in our buildings. Resolution to the GDPR challenge could be secured through the use on online secure digital storage and changes to the use of our Microsoft tenancy. Access to the Teams meetings through Wi-Fi connected devices in our school buildings, needs to be put in place.
4.	**BYOD network**	Schools currently have a dual level of security around the use of Wi-Fi by devices other than those imaged to work on our network.	Access to the BYOD network to be simplified to allow a wider range of different digital devices to connect.
5.	**Connectivity for pupils outside of the school day.**	Providing digital devices to pupils will only provide part of the solution required to allow learning to continue after school. The costs of connectivity at home, are for some of our families, a great barrier to learning continuing outside of the school day. The council is currently in the process of extending free Wi-Fi access in community centres and libraries. Connectivity devices provided during the lockdown period are expensive to maintain.	Inverclyde Council await Scottish government advice on how connectivity
6.	**Online protection**	When working on a school based device, all learners are protected by firewalls, content filtering systems and virus protection.	When giving out devices to learners to use at home, aspects of protection also need to be built into the image of the device.
7.	**Technical support, device setup and repair**	Currently any device given to a learner for home use in 2020-2021 has been setup by school staff and, if required, repair or issues are logged with the ICT service Team.	If numbers of student devices increase as a result of the government pledge, then a dedicated team to administer and

		This however has increased significantly workload for some staff and has impacted on the ability of these people to deliver their normal services.	support these devices will be required.

Appendix D

Transfer of operational working to a cloud based approach

All use of digital devices in Education is linked to teaching resources, files and applications located on the school networks. In order to access these outside of the school, the use of a Virtual Private Network (VPN) connection is required. The costs of expanding the use of the VPN would increase substantially if all education staff were requiring the ability to work remotely from their base school.

Many of the main digital tools needed by our staff to enable flexible approaches to teaching and learning however do already exist online. Our current Education Microsoft 365 licence allows us to link with Glow for a range of online applications and for online meetings. Most licences for software applications are however purchased individually by schools.

Access to resources of a more confidential nature are currently located in password protected folders on both Education and Corporate Accounts held by school managers and pastoral support staff.

Ultimately the solution is to move towards an online virtual network, where access, management of devices and storage of files and resources are linked.

A move to a cloud based storage and operational approach will provide the following opportunities and benefits:

- Access to applications, resources, files and folders without the need for a VPN
- It provides an improved solution to the security challenges of key staff working on dual networks around GIRFEC information.
- Provide a mechanism for the setup and remote management of mobile devices for both staff and pupils through the use of InTune as part of the Microsoft 365 licence.
- The ability for Education Services to work collaboratively with other Council partners on sensitive documentation through the use of a secure document management system called Objective Connect. This is currently used by HSCP partners and so opportunities to share the cost of using this. An annual cost of £8500 is expected.
- Flexibility to use the Microsoft 365 tenancy to link with the wider Corporate Digital strategy in terms of the use of Teams and e-mail. This should provide long term benefits in terms of working with partner agencies and families.
- Access to online learning resources/applications for staff and pupils which currently can only be accessed by pupils, in school.

Challenges ahead:

- All current software licences will need to be reviewed and equivalent cloud based products identified, costed and tested.
- A common image for devices used at the different sectors/stages of education will need to be compiled.
- Some software will simply not be able to operate on a cloud based system. Teaching and support staff will over time need to identify alternative ways of delivering aspects of their courses.

- Personal storage of documentation will be through the OneDrive product. Staff will need to be fully aware of the nature of content and possible GDPR implications of information to be stored there.
- The process of sharing and working on collaborative documentation across a school will move more towards Teams and SharePoint sites. Staff will require additional training and support in the use of this approach.
- Staff with responsibility for administration and pastoral support will need additional training on the use of Objective Connect.
- Our Promethean ActivPanels would benefit from being connected directly to internet through their inbuilt Android devices. This would enable teaching staff to make full use of learning applications which work in tandem with the learners own devices. It would also bring efficiency benefits to the ICT Services team in providing them with the flexibility to remotely update and manage the panels, rather than having to visit each one individually. The management software system for this lies online and so again fits well with a move to a cloud based approach.

Please note that the challenges of operating pupil devices safely and securely both in school and at home will likely need a unique student network to be created for our buildings. This is currently being discussed more widely at a National level by our ICT colleagues.

Appendix E

Development of Continuous Professional Learning Opportunities for staff

The increased use of digital learning approaches clearly mirrored the situation that was present during lockdown. As lockdowns were introduced the scale of usage of digital approaches grew dramatically. Both staff and pupils focused not only upon the learning taking place but also on increasing their skills and confidence in using a range of digital applications and devices.
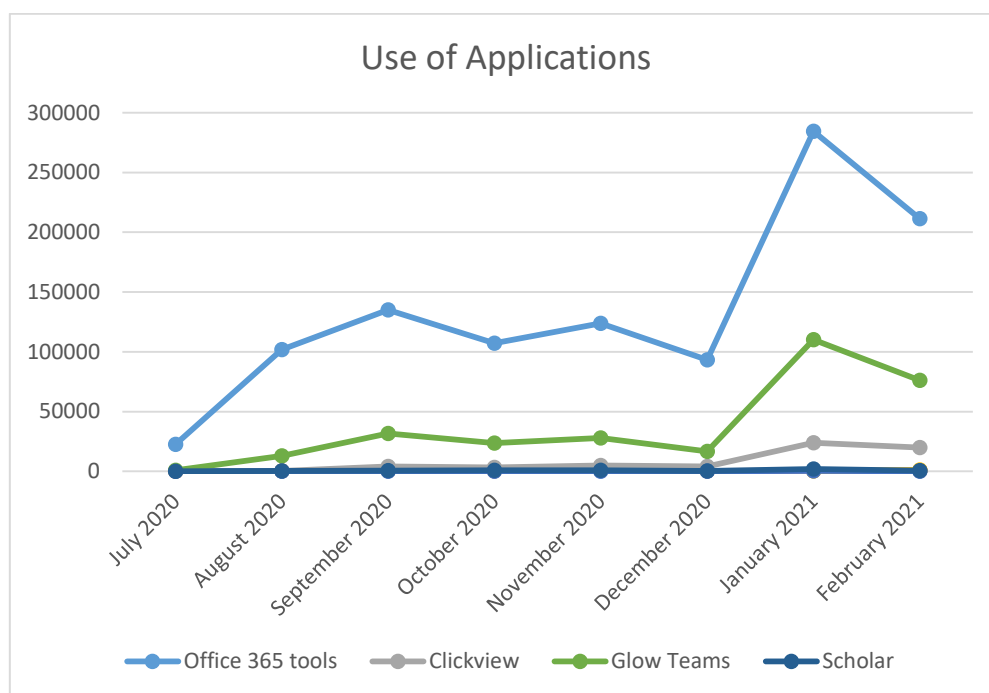
Since returning to their nurseries and schools, the increased demand for additional digital learning pedagogy training and skills development has continued. Similarly the use of these applications has

also been sustained and is being further developed now as it is delivered in a blended way by staff from within our establishments.

This strategy identifies a number of areas of digital development that will be targeted in the coming sessions:

- Creating and leading a digital culture within our establishments.
- Cyber resilience and Internet safety
- Child Exploitation and Online Protection
- Effective use of ICT within Learning and Teaching
- Support for Digital Champions
- Digital skills pathways
- Applications for learning
- Use of digital approaches at Early Level which link to play pedagogy and outdoor learning

This strategy also aims to encourage staff and students to gain accreditation for their own learning. In the case of staff, this will be providing them with opportunities to be involved with recognised certificated training such as the Promethean Trainer programme and the Microsoft Educator programmes.

This strategy also strongly recommends the involvement of staff in the Young STEM Leader (YSL) Programme. The benefits of staff becoming the leaders of this initiative within their schools is that their students can also gain by achieving the SCQF levels 2- 5 awards through involvement in unique leadership opportunities.

Delivery of training

Education services has established links with a number of providers of high quality training, including:

- Education Scotland
- Microsoft
- Promethean
- Clickview
- West Partnership Authorities

We also recognise the skills and expertise of some of our own staff and will be seeking to further provide leadership opportunities by encouraging them to share their best practices and deliver aspects of our training.

It is clear that many staff value the ability to undertake this training at a time and place of their choosing. The programme of training has therefore been designed to be delivered through a mix of live, recorded and interactive activities. Currently the present Covid guidance makes it hard to deliver training face to face. However this strategy recognises the importance of being able to learn from hearing about the experiences of other participants and so will explore further these opportunities as the guidance is relaxed.

Courses will be highlighted on a regular basis through a calendar of training on the Inverclyde CPD system ↗ and also through our use of Glow support Teams and staff blogs.

Appendix F

Connectivity for learner devices

A major challenge for Education Services over the past two sessions has been to ensure equity of access to online learning for children across our authority. Although access to devices allow learners to engage in some planned learning activities, much of the learning takes place online or requires access to internet resources. This is a challenge for many of our families due to the costs of that provision.

As part of Inverclyde Council's response to the Covid pandemic, Scottish Government Grants enabled Education Services to temporarily provide connectivity solutions to a number of families at home. This does present a considerable challenge to the authority to deliver over a longer term period.

Inverclyde Council has been working on widening access to free internet solutions through their programme of work in community centres, libraries and other council buildings. This strategy seeks to provide an additional opportunity to expand this access to our learners, in educational establishments. This requires a redesign of our Bring Your Own Devices Network and as indicated previously, the design of a learners' network may also enable devices to be more flexible in the way that student devices can operate both at home and in our schools.

Education Services await further details about the Scottish Government commitment to provide digital devices to learners in primary and Secondary school settings and whether this includes a commitment to providing connectivity solutions as part of that.

Appendix G

Links to key online digital resources and professional reading

- ↗ [Information on the Education Scotland National Support Offer - CLICKVIEW](#)
- ↗ [DigiLearn Education Scotland Digital support website](#)
- ↗ [Digital Play in early years article - Stephen & Plowman](#)
- ↗ [Digital Schools Award Scotland site](#)
- ↗ [Information for parents/carers on keeping children of all ages safe online.](#)
- ↗ [Information for staff on remote learning](#)
- ↗ [Information for teachers on Blended Learning](#)
- ↗ [Microsoft Educator Digital Support website](#)
- ↗ [National Online Safety Website - Thinkuknow](#)

[PL links on digital learning recommended by the EIS](#)

[Realising the Ambition document from Education Scotland](#)

[Stobart Report: Upper-secondary education student assessment in Scotland: A comparative perspective](#)

In June and September 2020 e-Sgoil hosted extremely useful Q&A Discussion sessions looking at aspects of pedagogy associated with remote, face-to-face teaching. The discussion shares some of the key benefits of online teaching and discusses some of the drawbacks and planning for mitigating these. Panel members shared some of their own experiences and shared strategies that they have found to be particularly effective. The June session can be viewed here *(video starts at 8 minutes 30 seconds)* and the September session can be viewed here (Video starts at 9 minutes 30 seconds).