



AMESBURY  
INSIGHTS

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# Case Study: Digital Learning



**A school's journey from delivering an analogue education to deeply embedding 'digitalness' into learning from an early age.**

Digital literacy is an essential life skill and should be taught from an early age, this paper provides a compelling case study to show how to embed this in a school and why it is beneficial. Amesbury School is an independent school that educates the 2-13 age group, education across all year groups has been enhanced by the use of technology. Digital learning tools are used extensively to promote independence, collaboration and provide equality of access. Within this case study, we provide an informative look at the transition of a school with a 'traditional' academic focus on numeracy and literacy, to today, where digital literacy is now equally important.

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## Abstract

**In 2021 Amesbury became a Microsoft Showcase School. While sponsored by Microsoft, this accolade is focused on the ability of technology to transform learning by creating ‘immersive and inclusive experiences that inspire lifelong learning, stimulating development of essential future-ready skills so students are empowered to achieve more.’<sup>1</sup>**

What does this actually mean? At Amesbury this means using clear vision documents showing how children’s learning and skills will be developed, alongside a systematic programme of staff training and development. These protocols are dynamic and are revised and updated as progress is made. This paper details the processes towards embedding digitalness in a school that educates the 2-13 age group. It argues that all schools should make this part of the curriculum.

## Our Vision

Early years and primary or prep school years are where children learn foundation skills including reading, writing, adding and subtracting. At Amesbury, we believe that digital skills and digital literacy need to be added to that list as a fundamental skill for life.

Devices are in constant use at home and children experiment with them from an early age. This should be reflected in their school life. Strategies for learning modelled in school must be relevant for life. As soon as children start using technology at home, they should start using it effectively and safely at school, so they acquire good habits; including safety habits, and digital intelligence in line with their experience. Although digital literacy is part of the computing curriculum the purposeful use of technology should be part of all learning, not just skills in a single subject. Embedding digital tools into learning is fundamental for preparing young people for the future. The subject was explored at the World Economic Forum in 2016<sup>2</sup>, where only a decade ago such skills were niche they are now an essential core competency in most careers. Since their paper was published you can go further in asserting digital skills are essential in many aspects of everyday life.

## One School’s Journey

Amesbury School’s understanding of embedding digital tools has grown over the 20 years that the school has had a digital vision, but the aim throughout has been that the transition from learning at school to learning at home should be seamless. To that end the school has always aimed to be at the forefront of the use of technology in education.

### Our digital journey can be broadly divided into three phases:

Phase 1 - A traditional client-server set up with all services on premises, fixed computer suites with limited opportunities for use beyond the timetabled one hour ICT lesson a week and little or no data being transferred or used outside of the school.

Phase 2 - The introduction of iPads an additional education tool, which started to create links between learning at school and at home and reflected the fact that use of personal devices in the home was increasing. This was the beginning of us looking

at utilising cloud storage technologies to make work universally accessible.

Phase 3 - The move to an entirely online environment, including online classrooms, where all core academic and non-academic functions are cloud based and universally accessible. This mirrors the ubiquitous nature of technology in life and how many day-to-day activities are now habitually carried out digitally.

Amesbury is now at a point where digital is fully embedded into school life in an age appropriate way for all pupils.

Pupils in Year 5 to 8 have 1:1 hybrid laptops, a deliberate choice to give a touch screen and tablet mode in addition to a keyboard. All teaching and learning resources and pupil responses are in the same place; a Microsoft Office 365 OneNote notebook. Communication and collaboration are facilitated via the linked Class Team. Parents agree to their children having a laptop as part of the home/school agreement as it is not possible to learn in Year 5 to 8 without using one. It has been the final step in moving from digital being additional to traditional, to digital and traditional blending so that, at any time, the best tool for the job is used.

Pupils in Early Years to Year 2 have tablets and have accounts on a simple, integrated learning environment called Purple Mash, where they can learn about the possibilities of digital tools. Year 3 and 4 use a combination of laptops and tablets and have both Purple Mash and Microsoft accounts as they transition from tools designed for younger children to those in more general use.

A range of apps that interface with the Microsoft environment are also in use across the school, such as Flipgrid for video responses by pupils and creating teaching videos by teachers, Thinglink to provide learning resources in small chunks, Whiteboard to share ideas and Wakelet to collate online resources for learning or the results of pupil research. Wakelet was also used during remote learning to provide lesson resources to pupils in Year 3 and 4.



Each change started with a period of research and planning to establish a clear understanding of the improvements that the school aimed to gain so that change was clearly for the benefit of the school community rather than simply to introduce fun technology. An important element of this was identifying internal and external measures of success since a lot of time, money and effort was going to be expended. Initially the NAACE IT3 framework was used as the external measure but for the most recent developments, our decision to use Microsoft 365 as our online environment, meant that we aimed to become a Microsoft Showcase School<sup>1</sup>.

Microsoft Showcase School status is based on the Microsoft Education Transformation Framework<sup>4</sup>. This identifies four areas of development for embedding digital learning covering all areas of school life and therefore ensures that changes made are sustainable and build towards achieving the identified goals.

The four areas are:

1. Developing leadership and policy so that all stakeholders are involved in planning and leading change
2. Using technology to develop a pupil-centred approach to teaching and learning
3. Creating safe and secure onsite and online environments and leveraging data analytics to optimise student outcomes
4. Building the capacity for success in the school community through an inclusive environment that fosters the growth of future ready skills and the digital literacy to use them effectively



In September 2021, Amesbury was proud to achieve Microsoft Showcase School status, the culmination of the steps described above, phase III alone taking 5 years to achieve. This is external verification that we have achieved our latest aims and the springboard for identifying the potential for on-going improvements. We are now reaching out to local independent and state schools to share our experience and to explore ways to work together to expand digital learning in the future. We believe this collaborative approach is essential to maintain momentum and stay ahead of the curve, as digital education is such a fast-moving discipline.

### The Challenges

As Amesbury School’s digital model has evolved, innumerable challenges and obstacles have arisen. In this section we outline the learning as a result of dealing with these:

#### Stakeholder Buy-In

Staff, governors, pupils and parents all need to understand and subscribe to the digital vision. Each is critical and anyone has the potential to produce conflict and collateral damage in terms of losing staff or pupils. The organisation needs to accept this risk and mitigate it wherever possible.

Communication is key, especially with parents, particularly if there are financial repercussions, and especially as our pupils are mostly under the age of 13 and at a stage where device time is often limited and devices are shared. Staff input should be sought as well as adequate access to training and support both up front but also ongoing.

#### Infrastructure

The school infrastructure has evolved over time to accommodate the requirements in the classroom. Where the school is now represents the baseline for anyone embarking on a similar initiative. Top level considerations are as follows:

An **Internet connection** with sufficient bandwidth alongside a Firewall with sufficient throughput, capable of providing a media rich environment for all users. Blocking video sites with rich educational content to preserve bandwidth should not be a compromise.

**Switches and WiFi** that are capable of providing high density and high throughput. Ultimately this now equates to an Access Point in every classroom.

Pupil and staff **device functionality** will be determined by your aspirations for the output from the pupils. Having used tablets for a period of some years it became apparent that for us, a rugged, portable Windows laptop with a touch screen, keyboard, camera and Active Pen were all mandatory components. This is something that we emulate with staff devices, albeit with larger screens.

**Classroom technology** is then driven by the devices that the staff are using. Adopting devices where the interactivity is in the device afforded us the opportunity to remove Interactive Whiteboards and use consumer grade TVs with screen mirroring devices.

#### Safety & Security

As a school we follow the mantra ‘educate, not block’. The caveat being harmful and extremist content which is blocked without question. It is therefore vital for us to use a rich tool set to be able to build an environment where staff, pupils and parents are confident that, whilst we are providing an environment that closely mimics that which a pupil would encounter outside of school, it is one that is completely safe. Ultimately this is achieved through two tools alongside education practises.

##### Content Filters

Consider what you are filtering and where. Do the devices you are filtering belong to the school or are they Bring Your Own Device (BYOD)? Do you have jurisdiction over the device when it is not in school? Is the filter granular enough? Can it make the use of websites such as YouTube safe? Is it also capable of fulfilling safeguarding roles such as flagging searched terms to the Designated Safeguarding Lead (DSL).

##### Educational Tools

Do these have sufficiently granular control in order to make them safe? Can you disable chat or other unmoderated communication tools? Is there sufficient logging to be able to track user behaviour should there be a safeguarding incident or Subject Access Request?

**Organisational Structures**

Over the course of our journey a number of structures within the school have either been created or had their remit expanded to function to support the school’s digital initiative.

**Governors Digital Committee**

The oversight committee for digital initiatives. Where decisions are tested against organisation wide goals.

**Full Governing Body**

Ratifies decisions in the Governors Digital Committee.

**Senior Leadership Team**

The Group responsible for school wide decision making and ensuring accountability.

**Digital Transformation Team**

The day-to-day engine of digital within the school consisting of key staff to drive digital change. At Amesbury, this is the Deputy Head Marketing and Innovation, Head of Computing (Academic) and Head of IT (Non-Academic).

**IT Steering Group**

A collective of teachers from across the school, representing all subjects and age groups. Where ideas are tested and initiatives created. Also a point for the dissemination of information and training.

**IT Buddies**

A collection of staff from across the school who are confident in their use of technology and are available to help other members of their department or their peers.

**Digital Ambassadors**

A set of pupils from Years 4-8 who are available to help with technical issues in the classroom as well as provide valuable feedback to the Digital Transformation Team on the success of technologies.

**Parent Association**

The parent association that provides a conduit to parents ensuring information flow and fuller explanation of plans and progress.

**Finance**

The transition to embedded digital requires a substantial investment as well as a significant ongoing budgetary allocation. It would be reasonable to allow £700 per pupil device and £1000 per staff device.

**Training**

Academically, a school must commit to making annual, incremental steps with digital tools. Amesbury is equally committed to ensure all staff are brought along. We have established INSET time, with whole day training at the start of the year followed by timetable one hour slots to supplement skills and share good practice.

We make full use of the Microsoft Educator Centre (staff record and reflect on CPD in a OneNote notebook).

Tablet Academy are our Global Training Partner who not only provide ‘routine’ training, but also provide us with blue sky ‘Art of the Possible’ sessions.

**The results - the impact of a blended digital environment on our pupils and staff**

Quantifiable evidence shows that we have built the systems, processes and infrastructure to embed digital tools into the life of our pupils and staff.

- All our staff have gained core digital skills; 100% of teachers have an account on the Microsoft training platform (the MEC), 75% are MIEs (Microsoft innovative Educators) and 13% are MIEEs (Microsoft Innovative Educator Experts)<sup>5</sup>.
- All Heads of Department and senior leaders (31% of teaching staff) are trained in 21 Century Learning Design<sup>6</sup> and most have gained Microsoft Certified Educator<sup>7</sup>.

- We made a smooth transition to remote learning largely due to the fact that our online learning environments were already in place. In a survey of parents after the last episode of remote learning 89% said they were satisfied with the arrangements.
  - Despite our pupils learning in a comparatively open online environment, we do not have problems with cyber-bullying, inappropriate internet searches or hacking. Amesbury School has recorded only one incident of cyberbullying in three years.
- However, the impact of embedded digital learning is best seen in the development of what might be called “soft skills”. These are substantiated by observation and anecdotal evidence.



### Our pupils are growing as independent learners

- The use of digital notebooks from Year 5 allows teachers to provide pupils with a range of resources from which they choose for themselves which to use. This is particularly the case in the initial stages of studying a topic or skill where the aim is learning and understanding core information. Notebook pages include text, images, online videos and videos created by staff, as well as links to web resources, quizzes and resources for pupils to measure their growing understanding for themselves.
- Pupils of all ages can use digital media to show their learning making it more straightforward for them to show their understanding and ability to apply knowledge. Pupils are learning to be creators of digital output not simply to be consumers.

*"I enjoy Flipgrid because you can work with your friends and I can really express my thoughts"*

#### Year 5 pupil

- Learning tools (accessibility tools) are built into Microsoft ecosystem making them available to all pupils if they wish to use them. Text to speech and speech to text can be used by all pupils. Pupils of all abilities are seen using Immersive reader to listen to text whilst reading it to help them focus on the content, or dictating to give more detailed answers. Lower down the school pupils use audio and video apps to record their ideas and show what they know as opposed to what they can write about what they know.

*"I think Immersive Reader really helps me to understand what the writing is saying and helps me understand quicker"*

#### Year 5 pupil

- Digital notebooks and learning tools put together are empowering pupils of all abilities to take control of their own learning, including those with additional and diverse needs. No pupil stands out as different.

*"Using Teams helps forgetful people like me keep organised"*

#### Year 8 pupil

### Our pupils and staff collaborate effectively

- Using secure online learning environments allows our pupils, who are mostly under 13, to use digital communication between themselves and with staff. All pupils have an email address that is limited to the school domain. Younger pupils can practise

using email for fun but the older pupils use it purposefully to communicate with each other and teachers. They also use instant messaging in class groups. This allows them to chat about work outside the classroom and respond to each other's questions, encouraging peer support. The teacher is part of the communication but is no longer the main source of answers. Teachers make use of instant messaging during lessons to gather responses from all pupils, not just the pupil with their hand up, allowing them to gain a more comprehensive view of pupils' understanding.

*"I like that I can connect to the teacher when I am off sick and I can find the work on OneNote so I'm never behind"*

#### Year 7 pupil

- The online environment also facilitates real time collaboration on projects. Groups and whole classes can work in an online space such as an online Whiteboard or a collaboration space in a digital notebook to share ideas and research. They can also work simultaneously accessing one document to create one interdependent outcome, for example a group presentation.
- The ability to share documents has also transformed planning and administrative tasks for staff. Gone are the days of multiple documents needing to be synthesised into one cohesive whole. Online digital notebooks for pupils mean that there is no longer the need for piles of photocopying and teachers are not seen lugging around piles of exercise books.

### Our pupils are becoming "e-mature"

- Pupils are using computers how we want them to use them 90% of the time, i.e. for learning, study and exploration. Amesbury only lightly filters and pupils can get to diverting content, but they don't.
- Similarly we have created an environment which opens the door for wider discussion around their approach to life online. Things are not hidden, discussion when something goes wrong is the norm. We site the head of IT close to the Academic block, he is available to pupils, and the Digital Ambassadors provide peer support.

*"The more we have used digital tools, the more confident, intuitive and engaged my class have become technologically. They are more willing to try new things and they teach me new skills too!"*

#### Year 2 Teacher

### Traditional and digital pedagogies merging

• As our journey with digital has progressed we have noticed that we are starting to automatically think digitally in our work. Where we started out by substituting digital tools for analogue ones and enhancing processes by adding in digital tools, we are now seeing a bigger impact from digital as we go straight to a digital option and modify the way we work in situations where it will simplify and improve an activity. This accelerated as we moved to a fully online environment and all teaching, learning and admin occurs in the same place. In a hybrid situation, pupils were printing work created digitally so it could be marked or had to email it to teachers. Their work was in different places where it is now all in, or linked to, a digital notebook or online document repository. It is easily accessed by teachers, who can also see it as it is being created and proactively provide support. Planning and discussions now take place around shared documents which are linked into emails or instant messages. Photocopying and printing has hugely reduced, particularly in the upper school.

### The next steps

Digital technologies and the skills required to keep up and to advance are continuously and rapidly evolving. It is essential to keep challenging and developing to ensure the school environment is relevant and current. Standing still is going backwards.

Areas to keep under review are:

#### The educational environment

Continually review the way in which pupils use technology so that it reflects use outside school. In particular the way that younger children use technology. These decisions need to be taken with an eye on and also in consultation with the school's clinical psychologist.

Consideration of well-being aspects of using technology need to be at the forefront of our minds as the digital environment is maximised. The increased use of data analysis tools to record, track and analyse self-esteem and behaviour is paramount.

### Infrastructure

Whilst the front and centre outlay is the cost of new devices, the infrastructure needs to evolve to support the ever increasing demands of digital. For Amesbury, this will mean a re-evaluation of the topology of our network to improve connectivity for outlying buildings, as well as improving the classroom technology to improve reliability.

### Finance

Ensure the outcomes associated with digital learning continue to justify the high levels of outlay.

### Evolution/CPD

Digital tools are constantly evolving. Not only are new tools coming along, but the complexity and capability of existing tools is also under constant refinement. It is therefore essential to not only have the finances available for training and development but also to have structures in place to evaluate and implement these tools. Particular consideration must be given where the tools have the capacity to change the existing education model – even on a small scale.



## Conclusion

Embedding “digitalness” into the curriculum in a school requires all its stakeholders to commit 100% to redefining a child’s learning. As we have progressed along the digital journey, we have seen the huge positive impact that it is having on all our pupils - often more than we anticipated. As an independent school we are fortunate to have control over our curriculum and finances and therefore have the freedom and resources to choose a digital route. Currently the state education sector in the UK is not prioritising this because the Department of Education does not specify digital literacy as a core skill expected to be taught to all pupils outside of the Computing curriculum. It is Amesbury’s view that this needs to change so that all children can build these essential skills as they learn so they are prepared for their future life and work.



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