Mobile Device Strategy in Education: Supporting Student Learning

Introduction

As the rapid evolution of technology continues to influence the way we live, work and learn, educators are having to get to grips with a whole set of new processes and protocols before they can begin to implement new, digitally-driven tools to better impart knowledge and nurture enquiring minds. The educational system stands at a crossroads: if the many possibilities offered by the advances in technology are to be embraced, educational bodies need to find a way to seamlessly merge the old with the new.

Navigating the increased digitalisation of the classroom comes with its own set of challenges, and needs to be approached from an informed, pragmatic and future-proof strategy

As the technology available to students and educators becomes increasingly sophisticated and more affordable, educational institutions are bolstering their ability to engage learners via mobile connected devices.

The practice of ‘Bring Your Own Device’ (BYOD) offers a myriad of benefits for both learners and educators. Whether students are using a Chromebook, laptop or tablet, integrating the use of smart devices encourages independent learning and active participation by bringing a range of subjects to life on the student’s preferred device.

We’ve compiled this eBook to help you get to grips with successfully implementing the use of mobile devices in the classroom. We’ll explore the major mobile device trends in education, the challenges faced by educational institutions, and the best way to support digital learning.
Chapter One: The Latest Mobile Device Trends in Education

As more and more schools integrate mobile devices to amplify the learning experience, three major trends are influencing the way we approach education in a digital world:

Integrated Educational Solutions, thanks to the Device Mesh

Named by Gartner as the number one strategic technological trend of 2018/19, the Device Mesh is already changing the way educational institutions manage and implement their device learning strategies. Defined by Gartner as: "...an expanding set of endpoints people use to access applications and information or interact with people, social communities, governments and businesses. The device mesh includes mobile devices, wearable, consumer and home electronic devices, automotive devices and environmental devices — such as sensors in the Internet of Things (IoT)." Think of the device mesh as you would the London Underground: a network of interconnected tunnels linking different areas and transferring passengers from one end of the city to the other. A device mesh is the digital equivalent. In the context of an educational body such a school, a device mesh might include the myriad mobile devices brought by learners, the school’s intranet, a digital curriculum and more.

The Gamification of Education

Gamifying learning has long been an effective means of getting learners to engage and interact with learning material. From the USA’s National Spelling Bee, to a board with gold stars rewarded for hard work, gamifying education has been an essential component of school curricula the world over. Education gamification owes its efficacy to it’s ability to turn abstract concepts into interactive data presented in an easy-to-understand context, giving students immediate feedback. As a result, students’ ability to retain information and comprehend contexts is exponentially improved. Specialised, interactive software and the proliferation of connected in-classroom devices have fundamentally changed the chalkboard and textbook-reliant classroom of yesteryear.

As the Internet of Things (IoT) continues to influence education, coupled with the BYOD trend, gamifying learning is easier than ever. As demand for tools and software grows, leading brands like Microsoft and Pearson – providers of education textbooks – are introducing education gamification tools. In the US, schools are embracing education gamification solutions offered by companies such as Common Sense Education (formerly Graphite) and Playful Learning.

Textbooks take to the digital realm

As BYOD increasingly infiltrates and influences the classroom, digital textbooks are replacing their paper counterparts. Not only are the digital versions cheaper, they’re also easily updated – effectively eradicating the problem of traditional textbooks becoming outdated and educational institutions having to make do until a new edition goes to print – often several years later. eTextbooks offer interactive, engaging learning experiences on-demand. Industry behemoths Discovery Education and Apple offer multi-disciplinary, multi-media digital textbooks that offer immersive, personal learning through the use of touch, sound and motion. As the tech giant says, “The most powerful tools for learning are the ones students love to use.”
Chapter Two: Supporting Student Learning in the Digitalised Classroom

Harnessing the power of technology and the possibilities afforded by the BYOD trend requires an informed strategy, as well as implementing the necessary infrastructure, guidelines and best practices. Here’s how you can best prepare for the digitisation of your school:

Assess and upgrade your school’s wireless infrastructure
As more and more devices are introduced to the classroom, a robust wireless infrastructure is essential. Secure Edge Networks advises that educational bodies ensure that their wireless networks have a reliable signal strength and enough bandwidth to handle the simultaneous use of all connected devices. Your internet service provider should offer a free assessment of your network’s current capabilities, as well as advise on the necessary upgrades should they be required.

Secure Your Network
While the BYOD trend and digitisation of the classroom is incredibly beneficial, it also introduces a host of potential issues. One of these is the security challenges faced by school IT departments. “These security challenges range from authentication and authorization to having a granular visibility of all users and devices”, says Secure Edge Networks.

Implement and Champion a Mobile Device Learning Policy
Having clear usage policies and guidelines in place is paramount for the successful implementation of BYOD digital learning. This policy should include usage guidelines, such as prohibiting social media sites during school hours, using mobile devices on the school’s wireless network to bully or troll fellow students, and accessing adult content. It should also include information about the school’s recommended devices, as well as detailed information and instructions for the proper storage and syncing of each device. Ensuring that all students, parents and teachers are on-board and in agreement with this policy will pave the way for a successful and enjoyable learning experience for all.
Chapter Three: Key Challenges of Implementing Mobile Device Learning

As we mentioned in the previous chapter, there are multiple advantages and challenges associated with BYOD. While some of these are easily overcome, others can present problematic situations that required an informed, strategic approach.

One of the greatest advantages of BYOD is that it doesn’t require a hefty initial investment in hardware. That said, managing and working with multiple devices and operating systems can be a headache for internal IT departments. It also requires an on-site IT manager or support team, which, of course, requires a dedicated budget. In addition, in order to enable teachers to spend their time teaching instead of troubleshooting, they will need to have clear and readily available channels of communication with the IT department.

Before you introduce BYOD, it’s critical that the school body decides which devices will suit your student profile, your curricula, as well as the expected outcomes of your internal BYOD strategy. There is a plethora of mobile learning devices available, and in order to regulate and manage the digital curriculum, you’ll need to establish which devices are best suited to:

- Parent’s budgets
- Your student’s technical ability
- Your staff’s technical ability
- The frequency of use
- Efficient and secure on-site storage and syncing
- Your digital content and lesson plans
- Your preferred operating system

Once you’ve established the above, you can draw up a list of recommended devices and their required functionality. Bear in mind that it’s far easier to regulate the types of devices that are brought into the classroom if you can provide parents with recommendations from the get-go.

Be prepared to navigate the resulting social implications of the BYOD strategy

One major issue of the BYOD trend is that of inequality amongst students. If some students or parents cannot afford to invest in a suitable device, the already precarious and fragile social hierarchy of the classroom is further strained. Before implementing a BYOD strategy, it’s advisable to obtain feedback from all stakeholders, including the principal, IT department, teachers and parents in order to define the parameters of your own Mobile Device Learning Policy. As this paper from Sophic Capital points out, without clear guidelines in place, BYOD “can lead to bullying, mirroring the issues that prompted many schools to mandate school uniforms in order to blur the students’ economic classes. This technological inequality can lead to device theft or damage of higher-end devices.” This further emphasises the importance of having clear guidelines for the types of devices your school recommends students make use of. In the same vein, parents may raise concerns about the threat of cyber-bullying and their children accessing inappropriate content, which again calls for a clear and well-managed policy on in-school device usage.

Security, storage, syncing and charging: the challenges of dealing with multiple device types

As we touched on in the previous chapter, the task of managing, securing and syncing multiple devices falls on the school itself. While a fully-digitalised curriculum is arguably the future of education, for now, digital learning is a supplementary addition to traditional, analogue teaching methods. As it stands, mobile devices will make up only part of the school day, which begs the question: what happens to these devices while students are occupied elsewhere?

Having your students bring their own devices is pointless if you don’t have the necessary infrastructure in place to ensure that they’re secured and synced. As the BYOD trend continues to grow in popularity, educational institutions are having to invest in not only more robust internet connections and networks, but in device storage too. If parents are going to invest in a mobile device for their child, they’ll need to know that the device is properly cared for during school hours. In the same vein, if you want to provide a streamlined digital learning experience, you need efficient processes and tools in place that ensure all devices are connected, charged and ready to use at a moment’s notice.
Make sure you’re ready to embrace the digitalisation of the classroom. Find out more about our Lyte and UniCabby solutions today.

How LapCabby Can Help You

We make storing and syncing multiple devices simple and secure.

Our ‘one cart fits all’ UniCabby range is designed to streamline the management of multiple devices, storing and syncing up to 32 Chromebooks, iPads, tablets or laptops simultaneously, via one plug outlet. Fully assembled and ready to go, UniCabby enables teachers and students to access their devices from the front of the storage device, with each shelf housing AC adaptors and excess cables. Specially designed power strips boot up sequentially, avoiding damage caused by power surges and charging all device in one go. UniCabby enables you to pre-program up to three charging schedules suited to when your students need their devices. Featuring a snap-out power cable, ergonomic handles and rounded, rubberised corners for added safety and ease of use, coupled with a secure dual-point locking system that ensures the safety of your students and their devices. UniCabby meets all industry standard requirements, and is covered by a comprehensive lifetime warranty.

Our static storage Lyte range, offers an ergonomic, compact solution for the secure storage and charging of multiple devices. This cost-effective solution meets all health and safety requirements, features a robust design, lifetime warranty and is available with multi- or single-door options to suit any deployment route, from BYOD, 1:1, 2:1 and everything in between.

Sources:
www.sophiccapital.com
www.securedgenetworks.com
www.apple.com
www.discoveryeducation.com
www.gartner.com
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