



NO

CONTEST

With the DfE lending its approval to Carphone Warehouse's drive for tablets in schools, and the introduction of devices designed especially for use in an educational setting, the mobile computing revolution is picking up steam. But does this spell the end of the PC? Colin Hussey thinks not...

Before this article gets underway, I want to get one thing out of the way. I have an iPad. I like my iPad, and so do my children; in fact, outside of work, I use the iPad more than I use my laptop or the desktop PC at home. I state this not because I think the reader may assume I'm against tablets, but because the debate about tablets in education is becoming increasingly polarised, without nearly as many people in the grey areas between as I would like. Whether this is simply a knee-jerk reaction to tablets I simply can't tell, although with some of the big players being names that some of us love to hate it wouldn't surprise me if thoughts about the companies factored into peoples' views. What is clear, however, is that this is a topic debated, researched and presented by very ardent people, both proponents and opponents. So in a piece looking at whether tablets offer more benefits than PCs in an educational setting, I will nail my colours to the mast and say: Yes and no.

Recent research by Family, Kids and Youth into the use of iPads in schools concentrated on whether the feasibility of providing tablets to secondary school pupils in the UK can be justified in terms of pupil benefit, teacher benefit, pupil learning, potential risks including safety and security, cost, and acceptance by pupils, teachers and parents. The study was conducted across three schools and found that an increase in pupil-led learning was perceived by teachers to be a major benefit of one-to-one tablets in schools.



ABOUT THE EXPERT

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Another clear benefit was an increase in pupil-teacher communication via e-mail and more immediacy of feedback to pupils. So far, research seems to be qualitative rather than quantitative but it is difficult to speak out against findings such as these.

Price point should always be a consideration and some of the more expensive tablets are, from a school's point of view at least, prohibitively priced. But what value can we place on student motivation? It's surely priceless. Also, with more and more educational publishers producing apps or digital libraries, content alone could help be the deal breaker: if a school can access a full range of regularly updated, interactive educational content via minimally priced apps and if the devices in use are proven to enhance the learning experience, then how can we argue against full deployment of tablets in schools?

Despite the indisputable rise in popularity and the huge consumer use of tablets, many are sceptical of their educational benefits. Donald Clark, board member of Ufi (learnirect) and school governor, wrote recently that, "It's a hand held device not a working tool. Tablets are rare in the world of work and the writing, keyboard skills and skills with tools you may need in the real world of work are unlikely to be learnt on an iPad."

This brings us to the crux of any robust debate, the really important point that should be made whenever anyone talks about the pros and cons of tablets or PCs in schools:



numerous Outlook items open on my PC. I type long reports and emails and run several programs constantly in the background. This is normal workday activity and it simply cannot be done on a tablet, which instantly nullifies the argument that tablets can help prepare children for a more digital future. Tablets are the device of choice for many consumers but, for business, the PC still has it. This means that pupils will always need a good grounding in computing, not necessarily from a coding point of view (although I believe that this has clear advantages) but from an Office point of view. The majority of jobs will require a good understanding of these packages. Edgar Cervantes, writing for Android and Me on whether tablets can replace PCs, cites compatibility as a major issue. "If you need programs like Premier, Maya or Dreamweaver, you will not find something comparable. Even MS Paint works better than all photo editing Android apps. Media files can be an issue as well, since Android does not support all media formats."

So overall, can we replace PCs with tablets? "The answer is simply, no. At least not yet," says Cervantes. "You may only use a computer for the simplest tasks, in which case you'd assume it would be possible to do so. But the fact is, at some point, you'll run into something that will require you to use a PC."

In a recent interview with Forbes, James Mouton, general manager of HP's personal computer global business unit states the same. "While the way people interact with information has changed, when the task at hand is content creation, business productivity or immersive gaming, to name a few, a PC is fundamental," Mouton wrote. "Fortune 1,000 companies and governments rely on PCs for their infrastructure backbone and security."

On the topic of security, James Bertolucci, writing for InformationWeek, notes that "Apple iOS password managers aren't as secure as their developers would like us to believe. ElcomSoft security researchers, speaking in March at Black Hat Europe in Amsterdam, discussed their study of 13 iOS password keepers, only one of which had strong cryptographic protections. Three free apps even stored their master passwords in unencrypted form on the iOS device, making it child's play to uncover the password." A concern for all mobile devices, he went on to say.

To sum up: there is definitely a place for tablets in education, but the PC's role is also crucial. Tablets may be the better option for content delivery but when students are trying their hand at any activity that requires fast, sound performance and the ability to handle several large applications at once, then PCs will prove the better option. A school that wishes to equip its students with knowledge that will be necessary in many jobs but also deliver the curriculum in a way that appeals to the digital generation should explore the most cost effective ways of embedding both technologies into the educational setting, no mean feat in today's economic climate but one that is worth performing nonetheless.

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in an ideal world, we would have both. Why? "Tablets are for content consumption, laptops content creation", says Donald. So when you need computing power, you use a PC, Mac or powerful laptop. If your students are learning to code, tablets won't be the best option, and if they are designing a website or editing a movie then the same goes. This is a view shared by Kate Farrel, co-chair of Computing at School Scotland. Speaking to the TES in March this year on the announcement that the Scottish government will be supplying tablets to schools and other public services, she commented, "Handheld devices are wonderful for increasing pupils' digital literacy and creativity skills, but small devices are generally not suitable for graphics and processor-intensive tasks such as games development, graphics design, 3D modelling, computer-aided design and programming."

John Naughton, writing for the Observer, gave an excellent and fitting analogy for this when looking into whether or not iPads could be the death of PCs: "I've had one since its launch in 2010 and I use it every day. It has a terrific battery life, springs instantly to life when opened, is robust and portable and, when fitted with a sim card, provides good connectivity on the move. One could, I suppose, try to write a book, edit a movie or build a big spreadsheet model with it – just as one could, in principle, dig the garden with a teaspoon. But you'd be mad to try."

Those of a highly technical nature can give lengthy explanations as to why we should use PCs or Macs instead of tablets for tasks requiring more computing heft, but essentially it boils down to the following: productivity (or the ability to run several programs at once), compatibility with external hardware and security.

Taking the first point, the ability to multitask on our PCs, Macs or laptops is something many of us take for granted. I routinely have several spreadsheets, some Word docs and