

Gatekeepers in Technology

Ben Whitaker



Ben is a certified Google Educator, Trainer and Innovator and former Assistant Principal, who has led training around the UK and beyond. He is a passionate speaker who engages and inspires all those he works with. He has a background in leading sixth form, senior leadership and school governance. Ben's teaching speciality is 11-18 Religious Education and Philosophy – and he recently moved from his role as Chief Education Officer at Project Digital, in Lancashire, to take up a Curriculum Manager position at Burnley College. He is a Director at Edufuturists, where he hosts a number of educational podcasts and oversees the annual Edufuturists Summit & Awards.

Contents

Introduction	2
<hr/>	
Who are the gatekeepers?	3
<hr/>	
Who convince the gatekeepers?	3
<hr/>	
Five reasons why the gatekeepers don't listen	4
1. Lack of financial planning	4
2. No joined-up thinking	5
3. Fear of the unknown	7
4. Plethora of options	7
5. Poor advice around gimmicks	8
<hr/>	
Five ways to convince the gatekeepers	8
1. Think long-term	9
2. Try before you buy	10
3. Get buy-in	10
4. Think outside the box	11
5. Talk about impact	11
<hr/>	
References	13

Introduction

This report, written on behalf of NetSupport, kindly supported by Al Kingsley and his wonderful team based in Peterborough, started in September 2018. I have been conducting some research to look at finding some answers to the question: “How do we convince the gatekeepers in schools that we need to invest in technology?” More broadly, this was intending to address the idea of:

Convincing the gatekeepers in the educational sector of the benefits of technology implementation which is supported by sound pedagogical evidence and measurable outcomes, with examples of successful outcomes and solutions from select schools.

I had the privilege of presenting some of the initial findings and gathering some data with the Association of Network Managers in Education (ANME) team at a number of their regional events – and then again at BETT 2019 on the NetSupport stand.

In order to look at the research and find ways to convince gatekeepers to invest, I will explore who the gatekeepers are and the rationale for writing the report. Later, I will look at the reasons why investment has been oftentimes sporadic and mismanaged (leading to why the gatekeepers are perhaps reluctant to spend), and potential solutions to help those of you who are enthusiastic about technology in order to convince those who hold the purse strings! I initially started the research asking an additional question (“How can we find digital solutions to examinations and end-point assessments that meet the rigour required for student progression to future education, employment and/or training?”) but quite quickly found that there was so much in the first question that the second would have to wait!

It is, however, accepted that these two issues are inextricably linked in that the biggest barriers in convincing a school to adopt innovative solutions are cost implications and the nature of paper-based examinations (“Why would we spend on iPads when in Year 11 they will be writing with a pen for two hours in an exam?” and equally importantly, “Why spend on iPads in Year 11, but not upgrade the Wi-Fi or have a budget for training to ensure they have real impact?”). In order to address the issue of convincing some of the gatekeepers, we need to be able to suggest that digital solutions are on the way! This will require some connection with examination boards too. I intend, if time and/or opportunity allows, to address the second element later in 2019/2020.

Who are the gatekeepers?

In short, the gatekeepers are those who make the decisions in schools. To one extent, this is the end user: students, teachers and parents. Indeed, these are the people that we do all of this for - we have to rethink how we spend on technology so that parents believe that we are preparing their children well for future careers and then ensure that students are better prepared for their future, which means that we need to prepare teachers to help prepare them (pew, what a mouthful!) The knock-on-effect of investment is multi-faceted.

However, the gatekeepers we are talking about in this report are those who make the decisions; those who hold the finances in schools. Budget holders such as heads of department or leaders of faculties do this at the simplest level, so may invest in subscriptions or small pots of infrastructure and hardware. As we progress 'up' the chain of command, Deputy Headteachers with the remit for Teaching and Learning, Principals and Governors, and leaders of MATs/LEAs/clusters, all hold significant sway in how money is spent on educational technology, if at all.



Why convince the gatekeepers?

Klaus Schwab, founder and chairman of the board of the World Economic Forum, said in his work on The Fourth Industrial Revolution:

“On the societal front, a paradigm shift is underway in how we work and communicate, as well as how we express, inform and entertain ourselves.”

To that end, I asked the question about digital skills and the need to train young people for their future in terms of that paradigm shift. Schwab's World Economic Forum believes that by 2020, there will be 7.1m jobs lost worldwide and Oxford University believe that 45% of all current jobs will disappear in the next

20 years². According to LinkedIn³, the top jobs in 2019 and 2020 are set to be in data analytics, computing and mathematics (programmers, developers, information security analysts), architecture, engineering (biochemicals, nanotechnology, robotics, materials), specialised sales (mobile advertising), transformational leadership, product design, HR and organisational development specialisms, as well as regulatory and government relations (e.g. lawyers for driverless cars!). In a similar vein, according to these sources, some of the jobs that will disappear in the next 20 years include dispatchers (for taxi firms, for example), printers and publishers, farmers, cashiers, travel agents, manufacturers, drivers, waiters/bar-tenders, bank tellers, military personnel and traditional construction workers (although there is some evidence that BIM technology - Building Information Modelling - is the future of construction).

This means that we must convince the gatekeepers – because the world is changing and the education sector needs to keep up by ensuring that what we are teaching students today has a direct correlation to the jobs that they will be doing in five, 10 or 20 years' time. The gatekeepers are those that are making the decisions that directly affect educators' ability to deliver the skills that are needed. This is not going away; the digital skills gap in the UK currently stands at 40,000 and is showing no signs of shrinking.

Elon Musk, the pioneer of Tesla and SpaceX (as well co-founder of PayPal and The Boring Company), is reported to have said, "You shouldn't do things differently just because they're different. They need to be... better." So we want to ask the question: why write such a report? Why is it important to convince gatekeepers to spend their money? (and it's not really *their* money, it is in fact, the public purse, which perhaps means we should be even more concerned about how it is spent).

The answer is simply because we need to better prepare our schools to better prepare our teachers to better prepare our students for the world in which they will live. The 2018 remix of the cult educational video, 'Shift Happens', shows just important this question really is.

Five reasons why the gatekeepers don't listen

I deliberately use this subtitle to be provocative; the gatekeepers have become bombarded with information from everyone trying to convince them of the latest tool and methodology to revolutionise their school. Add to this, the increasing distance between many decision-makers and the grassroots practitioners (especially in MATs or large organisations) and it may be argued that it is not that the gatekeepers don't listen, it's that they can't hear above the cacophony – or indeed, teachers have given up trying to convince them.

I think it is worth noting here that there are a number of factors that have meant that they don't/can't/won't listen. Here are the common threads, which I have compiled into a broad list.

1. Lack of financial planning

Often, the gatekeepers don't realise the financial benefits - *long term* - of investing in correct infrastructure. Follow Me Printing saved a school I worked with 50% on printing costs. They halved that again when they removed departmental printers and printers from SLT offices. Hear hear, I hear you say! Or, an option like [NetSupport DNA](#) helps schools manage and maintain their infrastructure and devices to provide a sound base that the "teaching and learning" solutions can run on. This tool offers a complete suite of IT admin features for schools and colleges, without the expensive associated hardware purchases, implementation and initial training costs of alternative solutions, allowing server management, a fully responsive admin console and agent software on each device you want to monitor. Features like Software Inventory and Licensing allow schools to monitor the usage (or lack thereof) of that "vital piece of software" to see if we are getting value for money in actual usage. This kind of overview is a brilliant way to look at long-term financial plans (and evaluate them) as many schools get tied into long contracts - a school I did some advisory work in had an £80k server renewal bill that was due, which forced them to look at cloud solutions.



We all know that budgets are tight; the Guardian⁴ reported that real terms per pupil funding in 2020 will be over 50% higher than it was in 2000 and it is said to be as high as 91% of schools that are facing school budget cuts. Indeed, the IFS has evidenced that the average cut is at 8% and a BBC report⁵ states that sixth form funding has been cut by 25% and local authority support is down by 55%. That said, some of the issue is not in the reduction of budgets but rather a lack of planning through asking questions like, “How sustainable is this policy?” or “How soon is this piece of kit going to become outdated?” Instead of looking at initiatives like BYOD or progressive investment in the network and removal of peripherals from the classroom (saving labour costs and downtime), many leaders are reactive (to a shiny tool or app) as opposed to being proactive.

My friend and fellow Edufuturists Director, Steven Hope, is the Head of Independent Learning at Leeds City College, a multi-campus organisation with over 23,000 students and upwards of 1,200 staff. His switch to Chromebooks and G Suite has saved the college over £2million. “It wasn’t all about cost-saving for us at Leeds; it was more about building the right culture that showed sound business planning, thoughtful pedagogy and an unrelenting focus on training and development,” he reports. “This cost-saving was arrived at by rethinking the whole spend on libraries, technology, furniture, infrastructure. Over the course of the last four years, we have seen huge growth in our engagement from staff and students too.”

The reality is, for many school leaders, their finances are either handled directly by the Headteacher (with little or no formal financial training), or by a Business Manager (who is often not from a teaching background). It is a classic rock-and-a-hard-place scenario. It is not that schools have no financial planning, it is perhaps that their financial planning is not aligned to long-term technology and teaching and learning strategy.

2. No joined-up thinking

Lots of tech decisions are made in isolation - there is usually no SLT or governor responsible for this – and, if there is, it is usually amongst five other priorities! I have only ever seen two schools that have a technology strand in their Improvement Plans. And usually it is about embedding certain apps, rather than thinking of the pedagogical sense that self-marking homework would have for teachers or collaborative planning solutions or Remote Access would have for staff.

I worked in a school that invested in becoming an Apple RTC - it was a 1:1 iPad school. They only had WAPs in corridors and they were shared between three or four classes! They did not invest in their ‘pipe in’ and thus teachers and students gave up when nothing would work. Not installing an MDM meant that the network team didn’t have full control of these iPads and much of the guest network usage was on additional devices. Conservative estimates now suggest that most people have at least four devices accessing the internet at any one time - in a school of 1,100 students and 120 staff - you need to think about your infrastructure!

Fraser Speirs (who was recognised as the world's first to introduce a 1:1 iPad scheme to the independent Cedars School of Excellence, in Greenock, in August 2010), has recently made the decision to rescind the school's leasing agreement for iPads – which cost £329 per unit – in favour of Google's Chromebooks, which he has decided to buy outright at a much more cost-effective £200 per computer. This is not an article promoting one piece of kit over another, but what was Speirs' rationale for making the switch? "Apple's functionality around the cloud is not really cloud; it's more of a synchronisation tool than a cloud service. It's not as though we have just made the decision to go for Google; we've been on the Google journey for some time as well, working with its products for five or six years. But it's only recently that the balance has really tipped in favour of G Suite."⁶ The answer is that another solution gave him a clearer connection between his teachers' practice and the technology solution that was on offer.

The investment in IWBs and touchscreens has been an epic waste of money - because they looked good and because they simply substituted one expensive solution that didn't have an element of redefinition (see SAMR model for explanation of this). Damian Hinds, former Education Secretary, admitted recently in The Telegraph, "Over a decade ago expensive interactive whiteboards were rolled out to schools, without the support of teachers, and we saw no subsequent rise in pupils' attainment directly linked to that technology"⁷ Indeed, Tony Cann, the man who made interactive whiteboards the force they were in his role as founder of Promethean, told a TES article in April 2019 that, "Unfortunately, whiteboards did not achieve the improvement that I had hoped for. I think that they improved a bit, they made teachers' lives easier, but I didn't see an enormous improvement in the classroom that I knew was possible. It didn't change the pedagogy. Teachers still taught at the front: I teach, you learn. There was no engagement, involvement, and what I did was begin to develop a system that would engage and involve and change the pedagogy."⁸

If you don't invest heavily in the training for staff, these expensive pieces of kit become glorified blackboards. Because many schools still listen just to the IT Manager or the person who has had the most experience in the 'tech' field, people aren't asking the questions about how it will save teachers' time, how it will lead to improved outcomes, how it makes pedagogical sense or why the investment will increase collaboration. Although the phrase 'joined-up thinking' is a little overused, I am not sure we have been very good at the 'joined-up talking' or 'doing' that must come after the thinking!



3. Fear of the unknown

Moving to the Cloud or rolling out iPads comes with a certain level of uncertainty: is it safe, is it going to create me more work, I have always done it this way, I like sending emails, I like my USB drive (even though it isn't encrypted and causes 1000s of issues not least GDPR, trust and compatibility issues before we even talk about cybersecurity and malware!).

American politician James F Byrnes famously said: "Too many people are thinking of security instead of opportunity." I am convinced that the psychological phenomena of Fight, Flight or Freeze is prevalent in education, not least with gatekeepers. Fear that comes from a lack of control and/or security, although often legitimately motivated (indeed, these are gatekeepers that must protect the vulnerable and preserve some level of innocence in children), is leading to a lack of decision-making, an avoidance of discussion or, worse, fighting to protect a job or a tool that is no longer fit for purpose.

The investment in technology is often preceded with a fear that the children will know more than us or, heaven forbid, that we might have to undergo some training. Sometimes, the gatekeepers are indeed scared that the decision or idea isn't theirs – which automatically makes it less likely to succeed! I have seen so many leaders reject suggestions because they were worried about what it would mean for x, y or z. Often, fear is indeed crippling.

I have seen this evidenced in people's reactions to AI in the classroom, and the vociferous trad. Vs. prog. EduTwitter debates regarding the use of technology in the classroom. Much of the aversion to technology in the classroom comes from "if it's not broken, don't fix it" mentality, mixed with a heavy dose of "we have always done it that way". I may be oversimplifying the root causes and this paper is not intended to be an educational philosophy treatise on progressivism, constructivism or behaviourism, but I must admit that any ideas about future skills, jobs of the future, or indeed, futurism, is met with a huge amount of criticism, fear and/or skepticism.

4. Plethora of options

Most gatekeepers are overwhelmed with the options - iPad, Chromebook or Android device? SMART board, HD TV, ActivPanel, projector or Jamboard? Google or Office365? SIMS, Canvas, Firefly, RM or Bromcom? Do we need a VLE? Do we want an integrated system or a multitude of separate apps? Shall we open the App Store or should we lock it down?

The fads have come and gone and we as technologists/network staff/teachers have been as guilty as anyone with the dazzling new kit. Or, on the flipside, refusing to move from what we know due to fear for our jobs. Lots of FE colleges are moving towards having tech coaches and Digital Learning Specialists - the aforementioned Leeds City College is one such model, which is mirroring much of the good work from the U.S. We have to evolve though, rather than being comfortable in our own stuff and remember why we do it: for the kids and their progress.

The plethora of options is only a problem if we don't use sound rationale for investment. It is easy to say no to something if it doesn't fit the strategy at this stage of curriculum development. That isn't a forever no; indeed, it is probably worth keeping a list of options for the 'just-in-case' moments. That said, some big decisions that have been deliberated over probably don't need regularly revisiting. For example, if you have gone G Suite, the argument for spending on Office365 isn't necessary. If you are using Moodle, use it for all its worth rather than keep swapping and changing.

In a previous role, I remember a colleague saying that you only need to look around individual classrooms to see all the 'great new ideas' that have come and gone - Help Hubs, seating arrangements, laminated A3 sheets sellotaped to desks, behaviour for learning steps! The worst thing is that isn't just tech that is often gimmicky; one only needs to look around a typical classroom to find posters or hats or wipeable desks as trophies of tried (and tired) but not fully tested 'next big things'. It comes back to previous points above: the options must be considered as part of the joined-up strategy (more on that later!).

5. Poor advice around gimmicks

We have all met those Principals or Assistant Heads for Teaching and Learning who go on a conference and think this next bit of kit or software will be the “next big thing” and throw their money at it. Programmes like Hegarty Maths or eMaths Master are great for Maths development, but are they worth the investment that could be spent on 1:1 support for disaffected or struggling students? I am not arguing either way; indeed, I love the work that is out there for Maths and English improvement. What I am asking is, “Who is telling the gatekeepers that this is THE solution? Who is asking the context and content questions? Who is looking at the big picture?”

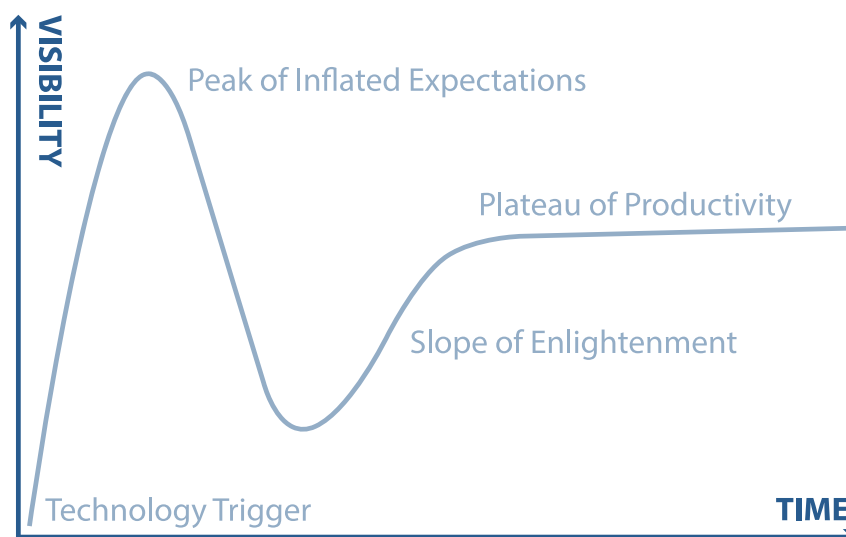
Lots of advisers and salespeople talk of the next big thing. I have had a number of really bad experiences with this and on one particular occasion, one school invested well over £4k on a video observation kit for staff for it to gather dust in the AP’s cupboard because there wasn’t training time. It’s not always the cost of the kit that is the issue; it could be the ongoing investment in training and evaluation of the software or hardware.

So when it comes to answering the question of why they don’t listen, those are a few of the answers. However, I haven’t even mentioned the big ones: time and examination pressure. Much has been written on how these issues are affecting investment. That said, I do believe that Google’s Transformation Center training materials can help avoid these and other pressures and obstacles to investment, but more about that in the next part.

Five ways to convince the gatekeepers

One of my favourite theoretical philosophies with regards to technology integration is Gartner’s Hype Cycle (image below)⁹. The premise of this ‘cycle’ (I am not sure that it is cyclical, but who I am to judge?) is that there is some sort of Technology Trigger, where an early proof-of-concept story or recommendation is highlighted. This leads to a Peak of Inflated Expectations, a point where there are a number of success stories of how much of a difference this technology could make. However, this is followed by the Trough of Disillusionment, when interest wanes as implementation fails to deliver and there is no clear way to see how this tool will have long-term potential. I would argue that a number of technologies in schools and colleges stop here and we end up with what Chad A. Stephens calls “expensive paperweights”.

The model does continue though for those technologies that last. This comes to a Slope of Enlightenment, where there are more instances of how the technology can benefit the school and its use becomes more widely understood. Indeed, this culminates in the Plateau of Productivity, where the tool starts to take off, usage is evaluated and the benefits are seen as it is embedded in the strategy; this is the goal of educational technology.



In terms of ways to convince gatekeepers, here are the top five tips on how some of the schools and colleges around the UK are finding success and some ways you might want to tackle this in your context. The caveat from me is that every one must be contextualised. What works in one place might not work in your school or college. Think about your students and culture - make decisions or suggestions based on your context.

1. Think long-term

I cannot reiterate enough that there is too much by the way of 'Shiny New Toy' syndrome in schools. The Wow Factor often becomes the Why Question: "Wow that device is fast and cool; it looks amazing" becomes "Why did we buy so many of these and now they aren't working or being used?" I know what I am like in the supermarket when I see a deal or an offer and I am drawn in (usually around cake or chocolate!) so how are we thinking strategically as an organisation? How are we being responsible with the public or parent funding we receive?

I am advocating that the following questions be investigated before we ask for any financial investment from the gatekeepers:

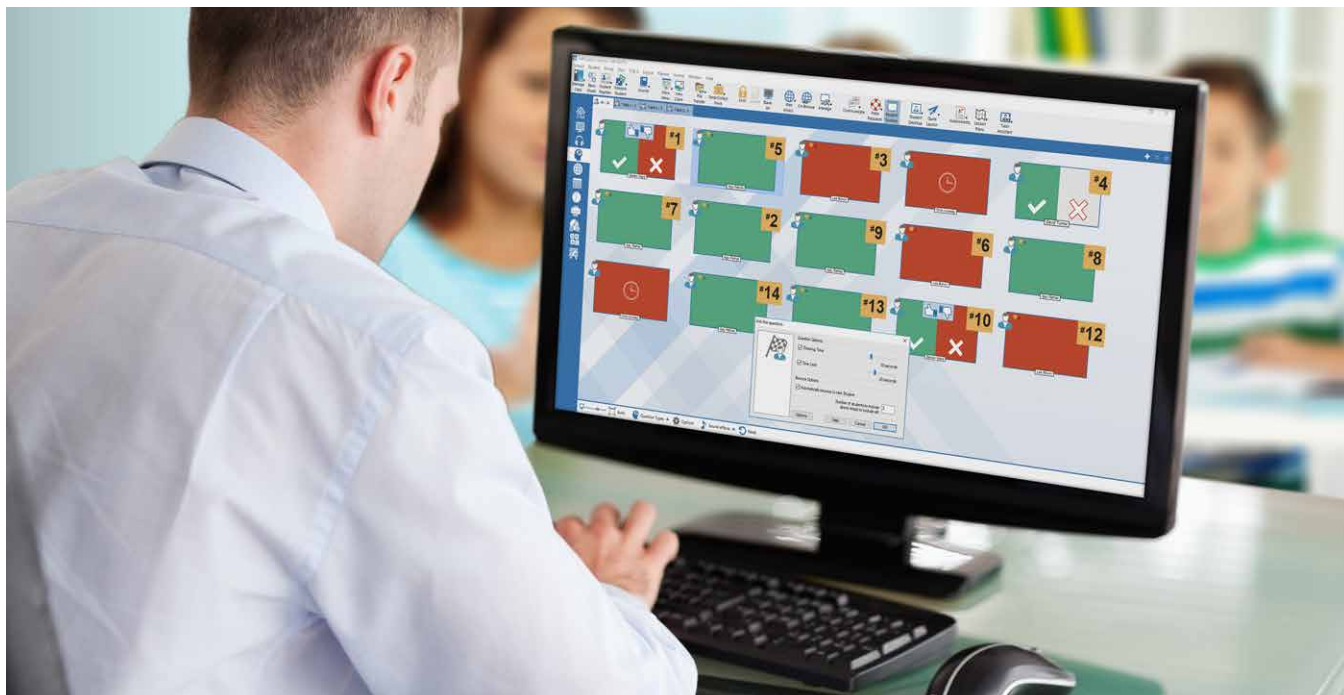
- ✓ ***What will the return on this investment be in one, three- or five-years' time?***
- ✓ ***What is the training plan required to ensure that there is longevity in this project?***
- ✓ ***How much do we need to invest in network and infrastructure (e.g. WAPs) first, rather than devices, software and peripherals?***
- ✓ ***How does this align with our organisation's KPIs and educational objectives?***
- ✓ ***What will be the impact if we DON'T invest in this technology?***

Give yourself time to not get sucked into decision making; other offers will come and go - you don't always have to make the choice today! Two of the most important elements of leadership are the ability to communicate vision and then helping everyone to align themselves to that vision. Your school leaders will be working towards a School Improvement Plan (SIP) and a Self-Evaluation Framework (SEF) - or their equivalents in colleges or universities - which means that any suggestion of investment needs to have longevity and an ability to be scaled and aligned to key priorities.



2. Try before you buy

Many companies now offer 30-day or 12-month trials of products or devices. Many hardware re-sellers use this as their sales strategy. Trial products/devices/solutions and then evaluate the impact; this final part is often the most neglected. EdTech Free Trials offers an example of a number of free trials in this sector. I know many of the Chromebook sellers like C-Learning and hardware companies such as BenQ are also interested in helping schools and colleges with thoughtful purchasing. **Indeed, classroom management solution NetSupport School is available on trial for 30 days for 40 devices by following this link.**



In terms of evaluation, here are some ideas of ways to measure whether the investment is worthwhile after the trial:

- ✓ *Who used it and for how long?*
- ✓ *Which groups of students benefited from this technology?*
- ✓ *How easy was it to train staff in its use?*
- ✓ *How much time and money would it cost to implement this on a wider scale?*
- ✓ *Who else is using this tool and what can you learn from them?*
- ✓ *What are the pinch points and key wins?*

We don't need any more stings in the tail; let's think strategically by having a go and evaluating the trial.

3. Get buy-in

This does not mean that you need to get people on your side against the powers that be. What it does mean is that it makes sense to find key staff in your organisation and give them tangible solutions - anything that helps with teachers' marking workload, student engagement, or subject-specific resources. From a leadership or gatekeeper perspective, you need to be able to measure why your suggestion is going to make a difference in their staff's day-to-day. I know that the language of gatekeepers starts and ends with impact; everything must be evidencable with impact (see later for more on this).

One way this could be done is through developing a working group (I would get permission before you do this). You could get free trials or demo accounts (using number 2 from this list) and get ideas of how and why this would work in various settings. Things to discuss in working groups could be:

- ✓ **SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats) of the tool**
- ✓ **Variety of use-cases (look at customer testimonials)**
- ✓ **Try and break it! Take it to the limits and look at how and where it might not work (On an interesting sidenote, I was with an employer who we work with at Burnley College, and engineering firms use the idea of stress-testing on every component. This is definitely something to think about as a model for education.)**
- ✓ **Find alternatives - cheaper, more expensive, easier, harder - and compare and contrast these to your trial tool**

With a group of advocates, whether they are students or staff (or a combination of both), build a use-case beyond your individual bubble and sphere of influence.

4. Think outside the box

The Google Innovator Academy taught me a lot about design thinking and how I needed to stop focusing on the problems AND solutions. What that means is that if I focus too much on the problem, I become negative about the scale of that problem - what I focus on develops. However, if I focus on solutions, I tend to pigeonhole my ideas towards one particular idea. Design Thinking in its purest form requires you to focus on the user. In this case, the user might be the teacher, the student, the parent, the administrator - whoever it is that would benefit from your investment.

The idea of thinking outside the box is often bandied about and it has become a tad cliched in the education sphere. What I think this means is that we need to exhibit at least one of the skills we are often asking of our students: creativity. We need to stop staying with the solutions that we know and love and start asking questions of everything. Above all, we need to ask the question: what is the best solution for the school and the progress of the students, having looked at all our options? If that means our jobs have to change, so be it! If that means we need to move away from our comfort zones, bring it on! If that means we need to undertake more training and learn a new skill, we have no choice!

5. Talk about impact

Perhaps most importantly in terms of speaking the language of the gatekeepers is the conversation regarding impact. I have hinted at this throughout this article because I want to help teachers speak the language that gets listened to! This is more than just about cost-saving and financial efficiencies but it does include this. It makes good sense to have scenarios and facts/figures up the sleeve before going into any conversation where the stakes are high. For example, to convince the headteacher of ways technology can save time and money - show the facts and figures - "This printing solution will save us £X and reduce our waste bill by £X per year which could be invested in X" or "Rather than spending £X on fixed site servers, save that money on moving storage to the cloud and reinvest that in new Wireless Access Points or upgraded internet connections."

But impact is more than just that which is found in budgets (although this is the itch that often needs scratching at some point in the conversation). Moreover, the impact is often found in improved outcomes (which are often measurable and recognisable) and staff and student engagement (which is often more qualitative than quantitative). Saving teachers 10 minutes per laptop login time equates to X number of hours that could be used for planning or other worthwhile activities. Lack of server updates and IT support for cloud storage is equivalent to £X of staffing that could be reinvested in teaching staff, resources or coaching.

Indeed, the Google Stories of Impact are designed to express the very essence of how G Suite is having an impact way beyond just the pounds and pennies. Here are a few of my favourites:

**Coleg Cambria
North Wales**

**Streetly Academy
West Midlands**

**Tring School
Hertfordshire**

So there you have it, some of the ways we can convince the gatekeepers to invest in technology. Good luck on the journey of persuasion - it's never an easy one and I know from experience that it often rarely happens the first time around. They do say that customers often have eleven touches from a company before they eventually buy from them, so don't stop on 10!

I also did some more generic research from my PLN (professional learning network) and these are the ideas suggested from some of the best minds out there in the UK. Thanks so much to them for taking the time out to offer suggestions and to the scores of others who I couldn't include here.

Jon Neale, Halcyon School, London

Don't think about it as an investment in tech; rather an investment in learning that will see returns that far exceed anything that you could have expected.

Oli Trussell, Founder of School Smart Cloud

The key thing is to look at school priorities and problems and identify which of these can be effectively solved or supported by effective tech implementation.

Scott Hayden, Basingstoke College of Technology

Industry and students are already doing this without you. It's happening whether you're ready or not!

Jamie Smith, Executive Chairman of C-Learning and former VP of large FE College

The only way, literally, is to forget about what you care about and understand what they (the gatekeepers) care about. Then you explore where the alignment might be.

Zaitoon Bukhari, Witton Park High School, Blackburn

You should talk cost-effectiveness. We have saved £50k/year on computer replenishment and a further £50k by going cloud-based and having a 1:1 Chromebook scheme, so much so, we now are planning to recruit more staff so have a benefit on staff workload.

Mark Allen, CEO 123Go! and School Governor

Whatever the priorities of an organisation are - whether financial, staff wellbeing, outcomes or purpose - then it's impossible to imagine doing any of that without a coherent strategy, and it's impossible to imagine a coherent strategy that doesn't involve leveraging contemporary technology.

Wendy Peskett, West London College

Try to address it in terms of how it impacts student progress or adds value; look at costings and try to find other similar solutions; find examples of other successful colleges doing it.

Steven Hope, Head of Independent Learning at Leeds City College

Leeds City College have always considered culture and strategy. We haven't made tech decisions in isolation from pedagogy. We don't need any more shiny toys or expensive paperweights; education is more important than that and we have a massive responsibility to spend efficiently and effectively.

Dave Leonard, IT Manager, Matthew Moss High School, Rochdale

We have a responsibility to make it work, whatever it is. We listen to the needs of the teachers and try to align that with the focus of the leadership team. Cost-saving has been huge for us but so has the impact of moving to the cloud. We highly recommend it.

References

- 1 Schwab, K. (2016), *The Fourth Industrial Revolution*. World Economic Forum: Geneva
- 2 Frey & Osborne, (2013) *The Future Of Employment: How Susceptible Are Jobs To Computerisation?* Oxford University Press: Oxford
- 3 Various (2017), *LinkedIn Workforce Report*. LinkedIn: United States
- 4 Adams, R. (2018), "Government accused of covering up schools cuts with misleading figures", *The Guardian*. <https://www.theguardian.com/education/2018/oct/04/government-accused-of-covering-up-schools-cuts-with-misleading-figures>. Thu 4 Oct 2018 14.44 BST. Accessed: 30.07.2019
- 5 Coughlan, S. (2018), "School spending on pupils cut by 8%, says IFS" *BBC News*, <https://www.bbc.co.uk/news/education-44794205>. Accessed: 30.07.2019
- 6 O'Sullivan, F. (2019), "World's first 1:1 whole school iPad pioneer switches to Google Chromebook", *FutureScot*, <https://futurescot.com/worlds-first-11-whole-school-ipad-pioneer-switches-to-google-chromebook/>. Accessed: 28.07.2019
- 7 Turner, C. (2018), "Replacing blackboards with interactive whiteboards was a waste of money, Education Secretary Says", *The Telegraph*, <https://www.telegraph.co.uk/education/2018/08/07/replacing-blackboards-interactive-whiteboards-waste-money-education/>. Accessed: 28.07.2019
- 8 George, M. (2019), "The interactive whiteboard pioneer with a 'killer idea' to cut teacher workload", *TES*, <https://www.tes.com/news/interactive-whiteboard-pioneer-killer-idea-cut-teacher-workload>. Accessed: 03.05.2019
- 9 Unknown Author (2019), "Gartner Hype Cycle", *Gartner*, <https://www.gartner.com/en/research/methodologies/gartner-hype-cycle>. Accessed: 28.07.2019