Speech: Education Secretary opens the Bett Show 2019

Welcome to Bett 2019 – the most amazing, brilliant showcase of education technology and innovation at its very best. Actually, not just its best, but its biggest. Here we are at the 35th Bett Show – bigger than ever – it just keeps on growing.

Speaking of keeps on growing, we're really proud that this show happens here in London because we're very proud in the UK of our EdTech sector; the fourth largest in the world with a projected export value of around £170million (over $200million). And I want that to keep on growing as well.

But of course, here at Bett you see products, innovations and services from right across the world, as well as from here in Britain. You might say it is an Aladdin's cave for the education geek. Well ladies and gentlemen I have a confession to make to you; I am that geek – or at least I used to be.

I wonder if any of you are old enough to remember this from your youth, I certainly am. This was one of my hobbies when I was growing up – coding, or as we used to call it programming. Sitting in your bedroom trying to get a game out of something as simple and straightforward as a commodore VIC-20. For any of you who are not old enough to remember what these types of technologies were, a commodore VIC-20 was something you used to plug into your telly and you would plug in a tape deck to load up programmes. It was something about the size of a small coffee table, with about the same amount of memory. I compare that now to something like 'Fortnite' which my children tell me does not actually take 14 days to play but does seem to take something like 14 gigabytes to download. It was hard writing a playable game with 3583 bytes of RAM; hard – but not impossible. In fact, in some ways, when technology was simpler life was simpler.

When I took my first job at the age of 17 (or at least the first job I had to wear a suit for every day) it was at IBM in Manchester, and it was possible back in those days in 1987, as a 17 year old, to be taught in half a day how to take apart a PC and put it back together. If I reflect back to those times in the late 1980s, I am struck that actually we had all of the core ingredients of office productivity that we have today; we had spread sheeting, we had word processing, we had slide design, we had database and we had desktop publisher. There is the classic Lotus 1-2-3, who's old enough to remember that?

But I'm struck by the difference between having ground-breaking innovation and then having the sorts of great leaps forward that makes those innovations work at their full potential and their full scale in the mass market. Of course, today we still have spread sheeting, word processing, database technology and so on but it was the graphical user interface and 'point and click' technology which made it available to that mass market in an accessible way.

Back in 1987, I was a bit weird because I worked at IBM I had an email address, but if I said that to any of my friends they had no idea what I was talking about, because it took a number of years and three more letters at the end of every email address to make it actually work for the consumer. It took the internet, the biggest leap forward of them all.

Speaking of leap forwards, let's leap forward to where we are today. We have some astounding examples of education technology available, you will see many of them in the halls out there and you can see many of them in very active and productive use in our schools in this country today.

Such as at Bolton College where their chat bot called Ada, named of course after the great Ada Lovelace, is enabling personalised learning for 14,000 students but is also dealing with many routine and not so routine questions, to relieve the burden of administration on staff.

Or Highfurlong School in Blackpool, where they are using technology in very innovative ways to support their students with special education needs and disabilities, to get the very most out of their education.

Or Sandringham School, where they are using technology to create a generation of discerning consumers of information, being critical users of technology and searching out bias online.

There are many, many encouraging and positive things happening in education technology. But EdTech also faces some particular challenges unique to the education sector. One of them is that EdTech sometimes gets a bit of a bad name because this is one of the few sectors where technology has been associated, for some people, not with a decrease in their work but an increase.

One example of that is email. Email is great when it replaces other types of communication, to make things more productive, but in education what you often hear from teachers is that it hasn't replaced anything, it has just added to it. To deal with this, we need schools and leaders to think in innovative ways and we also need the EdTech companies to come up with more solutions.

Of course, one of the very best things about technology and one way in which it has changed remarkably since the 1980s is its ability to crunch large amounts of data, and often, though sadly not always, to turn that into informative analysis, charts and outputs. But of course the data have to come from somewhere and this is another way that EdTech, technology and IT can get a bad name in the world of education; the sheer volume of data that is required or is asked for to be inputted into these systems can create an additional burden on teachers.

Then there's the market itself and there's probably no better example of an efficient market working well than here in the ExCel centre in January 2019 bringing together buyers, sellers, the interested, the curious to come together to taste and see what is on offer.

But away from Bett, there can be some difficulties with how the market works for EdTech products.

If you are a teacher, a school, a school leader or a head it can be very difficult to know from this vast range of what is on the market, what is good. From the point of view of a seller – particularly if you have a devolved system as we do in this country – and we are very proud of our devolved system in education and think it is a great strength. That can also make it hard for a seller to reach the buyer and to be able cost effectively to do their marketing and their product exposition.

There can be a very understandable nervousness on behalf of schools dealing sometimes with brands and names that they are not familiar with and wondering if they can be certain that these will be around in a number of years' time.

Then there is the issue of making a commitment, once you have signed up for a particular piece of software or a particular programme, it can feel like you are locked in. That can both make people stick with things perhaps longer than they would have otherwise, but also make them more reluctant to take them on in the first place. That can mean some wastage which is a serious issue. A serious issue because EdTech is now big business, here in England, technology in general in schools now has a spend of some £450million per year, so we need to make sure that money is being spent effectively.

So from this spring, we are going to be shaping our EdTech strategy for England and it has a number of different elements to it.

One of them is our friends at BESA are running a number of roadshows around the country which have already started, bringing tech to teachers to enable more schools to see what is on offer and to see what is possible. They are free, happening right throughout the country and I would encourage you, if you haven't already, to sign up to attend one.

We also want schools to be able to see good tech in action. That's why we are going to be rolling out a network of demonstrator schools and colleges where educators can get the peer-to-peer support and the training that they tell us is important to them, and raise their confidence level and skill in using some of these key products.

We need to have a trusted single place, an education destination if you like, where people know where to go for education products and services. By the way this is not just for teachers but also thinking about parents and direct consumers of education services as well.

Finally, because of those challenges that I mentioned with the way that markets work, we need to have an informed marketplace where people can buy with confidence and that also makes it more effective and more efficient for sellers to market their wares.

An important part of that is this product, which is being trialled by BESA and launches today, called LendED. It is an opportunity with tech products to try before you buy. It also allows teachers to write reviews and you can see

case studies and get hints, tips and advice on how to get the most out of these products. If you do go on to buy the product you have the reassurance of knowing that the companies involved have been vetted.

So, I want to make sure that in our education system we are able to make the fullest use of the complete range of opportunities available through EdTech. But I also want to make sure that we are able to be specific in what problems we are trying to solve. We have set aside a £10 million innovation fund in order to help to drive this forward and part of that is about addressing some very specific challenges. These are real world issues that exist today that we can look for new solutions to. They cover everything from administration, assessments, learning at all stages, teaching practice itself and the professional development of teachers.

I could have a lot more than ten things up here, if you look at special education needs this could be expanded into a number of different items. In different countries there will be different lists, for example there will be places where accessing remote or particularly sparse rural communities is a very important thing to develop. But I thought ten was quite a lot already and we wanted to have focus. So, these are the ten we are going to be focusing on. Each one has a very specific challenge attached to it and, in most cases, a measurable definable metric as well.

For now let me just talk about three of them. First of all, on lesson prep, I want to see what technology companies can come forward with to help to cut the time that teachers spend on preparing and marking homework and in class assessments. Obviously this is absolutely vital work, it is at the core of what we do in school and is the core of what teachers are about, but it takes too long. I want to see what we can do through technology to cut the time doing that by two hours a week or more.

Secondly, the engagement of parents, and obviously parents are crucial to children's education. Again, I think there is an opportunity here to cut the amount of time it takes while enhancing the quality of interaction with parents. As an example, we already have some schools in the North East of this country where they have introduced an online learning journey which enriches the amount of information available to parents and their involvement in their child's education and the progress they're making, but without adding more pressure onto teachers.

Finally, beat the cheats – we know that the growth of essay mills, the sub-contracting of work if you like, and the older problem of plagiarism – these things of course undermine the great work that students do at university. Over time this erodes the validity of qualifications themselves. Software exists and is widely used to try and identify plagiarism and abuse, but it seems the problem exists and in some cases is getting worse. For us to keep up with this, we need to make sure that we are not just up with the cheats but one step ahead of the cheats and we get smarter in the way that we do it.

For all of these three and the other seven on the list, there are three further tests which I think need to be woven through them. The first is that things have to be cost effective, ideally to reduce the cost that schools are

spending on these things to free up more resource for teaching and learning and the other important things that schools do.

I also want it not only to involve a manageable amount of teacher workload, but to cut the amount of teacher workload that is being expended.

Finally and most importantly, it’s all about outcomes and enhancing learning so that more children can do better and fulfil their full potential.

I think you’ve all showed remarkable self-restraint sitting here listening to people doing PowerPoint presentations, I apologise for that, but there are some fantastic presentations coming up after mine which I hope you will enjoy. I know then you’ll want to get out into the Aladdin’s cave to see the full breadth of all that is on offer.

I do believe we are truly on the cusp of amazing things in education technology and there are some truly amazing products and services. I say amazing in the truest sense; when you see them you are actually taken aback by what is possible.

But in some ways I feel we are still in 1987; we have a lot of these brilliant innovations but we need to make more connections, we need to create conveyors to bring these things to their fullest potential throughout our system.

And Bett, the opportunity you have today to be with colleagues and innovators in the system from around the world, is an unrivalled opportunity to do that.

We must never think about technology for its own sake. Technology is an enabler and an enhancer. Ladies and gentlemen you in this room are a big part of that because we need a partnership approach between educators and innovators, between the technology companies, and the government has a role as well; to make sure we work together to forge those brilliant tools for a brighter future for all our children.