

Technology in FE – Developing Relationships & Delivering Value

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Foreword



My first experience of teaching with computers was at Stannington College, Sheffield, (now a housing development) to a group of young motor vehicle apprentices. The room, one of two, contained 16 BBC Micro Computers and the students enjoyed playing “Pong” as part of their Wilt like general studies lesson late on a Friday afternoon.

Nowadays the motor vehicle students maintain and repair vehicles run by computers and carry devices in their pockets which have more memory, processing speed, connectivity and capability than the combination of all the BBC micro ICT rooms which belonged to the Maths/Computing department in the early 1980’s.

The last Association of Colleges (AoC) technology survey in 2012 suggests that not much progress had been made despite the huge sums of money invested and indeed suggests that colleges “were being hampered from delivering the government’s policy aims because of their inability to use technology effectively.”

There are some pockets of innovation where the Principal, a member of the governing body or a passionate member of the SMT actually understands the potential technology has to transform learning as they are attempting to change the culture of the college from an analogue to a digital mindset. It is an enormous challenge and needs more than a few passionate pioneers.

Things have taken the turn for the better just recently as newly appointed Minister for FE and Skills, Matthew Hancock (@matthancockmp on twitter) has taken a personal interest in the issue. He has formed an action group of industry and provider interests to try and support colleges in their attempts to ensure they make the best use of technology to improve teaching and learning. It is systemic change to the funding, inspection, audit, and assessment regimes which is urgently needed to give teachers the space to innovate.

There is much to be done however as colleges try to make up for lost time and avoid what Martin Bean, Vice Chancellor of the Open University warns is the “growing crisis of relevance” in our schools and colleges.

My grandchildren will leave school in 2027, 2028 and 2029 and they will leave schools that will have no pens, no paper, no books, no rows of desks, no whiteboards no printers, no desktops, no ICT suites and will be accustomed to working with learning analytics, gesture computing, onscreen assessments and instant feedback, speech to text and text to speech recognition and personalised blended learning programs accessible every day, all day and night and year round.

I hope they will have the choice of going to an FE college to continue their learning but if the slow progress that has been made since incorporation is anything to go by I am not sure they will?

This report should help colleges prepare for the learning and learners of the future.

Bob Harrison
Toshiba Education Adviser
Vice Chair of Governors Northern College
Member of Ministerial Further Education Learning Technology Action Group

Executive Summary

This report is for anyone involved with making technology decisions in Further Education (FE) and has been designed in a way to consider the colleges and suppliers' perspective.

In this report colleges will find out how difficult it can be to develop and roll out successful EdTech products, and discusses how educators can help improve EdTech products. Existing FE technology suppliers will find out about some tried and tested business principles that successful technology companies and start ups have used and advocate, we also highlight how these business practices affect FE. Start-ups and organisations that are looking to work with education or FE will discover why this could be a great target market.

The first part of each section includes business principles that organisations like MIT, EdTech Incubators like LearnLaunchX advise their students and start ups to use. The second "implications for FE" section details what adhering to, or neglecting, these principles can mean to educators. Whether an educator or supplier, we hope that this report proves useful with your current and future technology projects.

Section 1 looks at the time and cost implications of suppliers' sales efforts for both colleges and suppliers. We consider how much time colleges will spend annually dealing with sales enquiries, as well as the overhead costs for suppliers to get some early FE customers. We question whether the costs of attracting new customers could be converted into an R&D budget for early adopter colleges to trial new services and offer input.

Getting feedback and collaborating with potential customers is vital in developing great products. The best sales team in the world will struggle to engage with customers if the product is not fit for purpose or does not fulfil a need. Section 2 looks at the importance of "product-market fit" and highlights how it is extremely difficult to get products right at the first attempt, even Google, Apple and Microsoft did not get it right first time. We will demonstrate that the best way to achieve this crucial aspect of any product is through collaborating with potential customers.

One of the main causes of companies failing is rolling a product out too soon. Section 3 looks at the best indicator for gauging when you know you have a great product and when it is time to look for new partners and customers. We also look at some of the dangers that result from premature scaling, like high "customer churn" and turnover of key staff members; whereas the benefits of rolling out at the right time will be "less selling and more buying."

Finding the right target market is one of the most important decisions a young company can make. Section 4 looks at some of the key considerations suppliers should bear in mind when looking for a target market for their product. We highlight how and why, FE could be the perfect target market for start-ups with the right product.

Once a supplier has identified their ideal target market we discuss the reasons why sales become easier for market leaders. Becoming a market leader will be a key strategic goal for new suppliers and section 5 discusses the level of focus required for start-ups and new providers to become a market leader. Section 6 looks at the negative consequences for any organisation that loses their focus.

Section 7 looks at the "Technology Adoption Cycle," the different profiles and expectations of each group when assessing technology. We discuss how FE could use this model to improve products and the roll out process

"This report has changed my attitude! After reading it I got an email from a start-up and liked the sound of what they were offering, the company asked for a meeting and I agreed"

Caron Sandeman, Dundee College

Report Feedback from the Sector – Influencers & Associations



*"This EdTech report is brilliant and very readable. It captures many of the key points from my book, *Disciplined Entrepreneurship*, and applies the principles to the education sector very well. Education Technology is a difficult sector for any cash strapped entrepreneur, for many of the reasons outlined in this report. We look forward to sharing the findings from this report with our students and staff"* **Bill Aulet, Managing Director of the Martin Trust Center for MIT Entrepreneurship and author of *Disciplined Entrepreneurship***



"Technology in FE' is a highly informative and thought provoking report. The idea that suppliers and educators should work closely together on bringing technology into colleges will resonate strongly. Too often supposed solutions imposed without sufficient dialogue have resulted in poor outcomes and a failure to address educational issue. The report recognizes this, and thus firmly coheres with the launch of the 'great education debate' by ASCL, based on the belief that establishing purpose and vision are the starting points for any lasting and successful development in education" **Stephan Jungnitz, Colleges Specialist, Association of School & College Leaders (ASCL)**



"Jisc welcomes this report that will help suppliers and FE Colleges to better develop and exploit the essential technology services that are relevant to need and which will play an increasingly vital part in education and skills training. Jisc supplies a variety of services to the FE and Skills sector, underpinned but the Janet network, which itself is a highly advanced product developed in partnership with world class optical, transmission and network suppliers. We agree with the report that colleges need to be "active not passive consumers of educational technology" and the findings will support the Regional Support Centres work in this area. We recognise the importance of a vibrant and innovative relationship with suppliers and value greatly our relationship with FE Colleges that will help us to continue to co-develop valuable services for that community." **Martyn Harrow, Chief Executive, Jisc**



"This report contains sensible and practice advice for tech companies looking to build positive links and commercial agreements within the FE sector. It is very encouraging that leading lights within the sector are sharing experiences and collaborating with the education community." **Mark Rosser, Member Services Manager, British Educational Suppliers Association (BESA)**



"As a lecturer who is not directly responsible for the procurement of technology, I have learned a great deal from this report. While the information was new to me, it is conveyed in an interesting and engaging manner. The journey from an idea to the creation of useful technology which is aimed at meeting a specific educational need, then getting that product to the end user is a tricky one. It seems logical that the best results to ensure genuine 'product market fit' happen when all stakeholders are involved in development.

I was also able to make parallels with the various technology profiles and our learner profiles; the requirements for those that are tech proficient will be different from those who are not. We would not put a student with a lower level of skill in an A Level class, so understood and saw the value of the 'Technology Adoption Cycle'.

I look forward to seeing the impact that this report has on helping the FE sector to become a great target market for start ups and to encourage collaboration in the development of education technology. I found it to be an informative and thought provoking read." **Sarah Simons, FE lecturer, writer & co-founder of #UKFEchat**



"What makes the NMC Horizon Report series so unique is the diverse set of perspectives it encompasses. For each report, an international advisory board of education experts is convened to discuss their insights on the emerging technologies, trends, and challenges they each believe will have a major impact on teaching, learning, and creative inquiry within the next five years. Ultimately, they select the particular topics that are described in the reports and they support those choices by sharing projects that reflect innovative uses of the technologies in action. Just as this report advocates close collaboration with all stakeholders, it is this kind collective knowledge, collaboration and sharing ideas and information that makes the work of the NMC Horizon Project possible – and profound."

Samantha Becker, Senior Director, Communications, The New Media Consortium

Report Feedback from the Sector – Partners & Suppliers

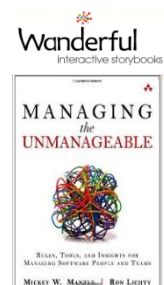


“This report is on the mark. LearnLaunchX designed its curriculum with many of the issues mentioned here – product-market fit, building long-term customer relationships, developing effective sales strategies – in mind. As our first cohort of EdTech start ups leave the incubator, it is satisfying to see our portfolio companies leverage these techniques and principles to scale. We believe it is important to make this information known to the wider EdTech field so that our community can grow and startups can continue to reform the education space.”

Working hand-in-hand with EdTech startups everyday gives us here at LearnLaunchX a perfect view to watch the growth and evolution of the education field. Education now accounts for 9% of the US economy and is growing rapidly all over the world. We believe that technology offers a once in a generation opportunity to revolutionize the way that people learn and make education more effective and available. We are excited to be part of this movement.” **Jean Hammond, LearnLaunchX**



“We have found this report very interesting as we have lived through many of the experiences highlighted in the 12 years since we began selling Smart Science® explorations. Initially, we knew we had a great idea. Now, we know we have a great product. We have survived through an evangelistic belief in what we're doing and through extraordinary customer support, including adjusting our product rapidly based on user feedback. Our biggest challenge in addressing the post-secondary education market has been its fragmentation. In most instances, you have to call on each educator individually. Cost of sales is huge, and we could probably sell our service at one-half or less of our current price if it were easier to reach and engage educators.” **Harry Keller, President, Smart Science Education Inc.**



“I found much in your report that was consistent with Wanderful interactive storybooks experiences in education. The power of “word of mouth” referrals cannot be underestimated. In today’s world of social media and mobile apps, we have found that the importance of “traditional marketing” activities has almost disappeared. We spent a significant amount of our marketing budget there and had little to show for it. The focus must now be on social media to spread the word out about our products. Having some means to go viral – which is a combination of hard work, timing and luck – is really the only way for a small entrepreneur to “rise above the noise” **Mickey Mantle, Founder & CEO, Wanderful interactive storybooks and Author of “Managing the Unmanageable: Managing Software, People and Teams”**



“We believe that the most effective technology tools stem from simple, design led, web based applications, which can create an enhanced experience for the end user. The recent boom in technology has led to improved internet connectivity which has enabled increased use of cloud based solutions. These lightweight alternatives not only cost less but make support much easier to access.”

“Flexible high-end web based technologies for FE establishments represent better value for money. In contrast to traditional relationships with suppliers, typically involving costly off the shelf products, suppliers should work closely to develop or extend a product, resulting in an innovative and bespoke package to suit all needs.”

Anything that encourages innovation within the sector and develops products and services that make the best possible use of current web technologies is bound to lead to positive outcomes.” **Mick Cox, Chief Executive, The Skills Network**