



## What Further Education can learn from Pixar's Toy Story by William Jenkins & Chris Grant

In the early days of computer animation some in the industry were focused more on exploring the art of what technology was capable of, than on the art of story-telling.

When John Lasseter premiered *The Brave Little Toaster* at the 1987 International Animation Celebration, the audience was blown away as they'd never seen anything like it before. This was because the film blended the very latest in computer animation technology with a great story, one which was full of character and captured the audience's imagination.

In an interview Lasseter highlighted that all good movies need to have a couple of key attributes;

*"You have to tell a compelling story that keeps people on the edge of their seat... [and to do that] you populate that story with really memorable and appealing characters."*

With the British Educational Training and Technology (BETT) & Learning Without Frontiers (LWF) conferences taking place recently there may be some lessons that we can learn from John Lasseter's advice, and the experiences of the early computer animators, when looking at technology in education today.

### Technological Change

Just like computer animation, education has changed a great deal over the years, it was not so long ago that technology was relatively uncommon in a lot of college departments but today every department relies on technological innovations to some extent.

25 years ago any talk of mobile access to library services involved a van driving round the area. Today information is mobile in a different way as the entire contents of that old library van can now fit into your pocket... we've achieved the equivalent of TARDIS technology in education!!

The pace and extent of change can perhaps be best demonstrated by the BETT Conference which, like Pixar, was in its infancy 25 years ago and has steadily grown each year. Today there are hundreds of technology companies exhibiting at the event. Some of these exhibitors might suggest that they can save the user a little time or solve a minor annoyance, others may be promising to be the next big thing in teaching and learning.

Whatever the claims the various suppliers make, there is certainly no shortage of technology companies queuing up to tell colleges how & why theirs is the latest "must have" Tech Toy.



TARDIS Tech  
Mobiles  
sure are  
bigger on the  
inside!!

**But how many of these products end up fulfilling their full potential?**

**More worryingly, how many are not able to carry out the most basic of their expected functions?**

If the answer is that not many end up being the next big thing, then why is this? Is it because like some of the early computer animators, we focus too much on what the technology is capable of doing rather than on the great story we're trying to tell? Do we have a great story planned for the Tech Toys but sometimes forget the plot? Or perhaps we expect the Tech Toys will magically come to life, so we don't need to factor in time to read the manual and familiarise ourselves with the technologies' full capabilities?

What can we do to make Further Education's Tech Story as compelling as a Pixar's Toy Story?

One where we blend technology & teaching to create a magic adventure, one that brings learning to life and captures our students imagination – every bit as much as the thought of a youngsters' toys coming alive at night. How can we make sure our Tech Toys are just as exciting & fun to play with as Woody & Buzz are for Andy?

### **Tech Story Plot & Great Education Adventures**

Such stories are not fairy tales because people like Salman Khan, Sugata Mitra, Rachel De Souza, Eric Shener, Pasi Sahlberg & KIPP schools tell us so in their epic education adventures, there are just not as many classic stories like these in the classroom as our young people might like to read about.

### **Childs Play**

To get more great stories like these the obvious start point with any new technology is to ask;

**What are our needs, what are we trying to achieve with these Tech Toys? How will the system be measured against those needs, so we can monitor if the technology is doing a good, bad or indifferent job?**

These may be obvious and straightforward observations, child's play almost, and it may well be an easy process for some organisations, but Further Education's requirements can be quite different to other sectors...it can even feel like it has a life of its own at times.

### **Technological Change & Educational Challenge**

Just like in Andy's play room in Toy Story, the conflict between the old and new is an on-going debate. Should we be teaching from good old dependable text books or using the latest technology like ipads & mobile devices (Steve Jobs & co at Apple causing as much tension in the classroom as their sister company at Pixar do in Andy's room).

With computer animation it was about finding the balance between technology & story telling. In education there is tension between whether the technology facilitates learning and how its presence affects the art of teaching. The debate is a hotly contested one with different viewpoints. Indeed there are almost as many opinions on the issue as there are characters.

We think we have a compelling Tech Story to tell, however we were not sure that we could populate the story with memorable characters of our own creation, so we decided to borrow some to help tell our tale (Pixar doesn't mind...we checked!!) It gives us great pleasure to bring you:

# TeSH STORY

## The Classroom Characters

We join the adventure in the Tech Story classroom where a group of toys have come together and are assessing the merits and their concerns about the new “must have” Tech Toy – the “i-Want” for the college. Like Andy’s playroom, each member of the group has a different personality and different perspective at the thought of the arrival of the latest technology.

Discussions take place amongst the group to assess the implications of the i-Want, and the debate turns to whether this latest innovation will be useful or disruptive in the classroom. The characters and their personalities include;



**Buzz Lightyear (Space Ranger)** – Was once the latest in toy technology which promised much in the adverts, so when he arrived in the classroom he believed he was capable of doing more than he was able to. He thought his job was to protect the galaxy and it took a while for him to acknowledge his purpose, capabilities... and limitations.

**Woody (Cowboy Doll)** – Worries that any new Tech Toy might mean he will have a diminished role in the classroom; or that it may even lead to his worst nightmare where he is replaced.

**Rex (Dinosaur)** - Worries and frets about anything and everything.

**Slinky Dog (Slinky Dog)**- Goes with the flow, is flexible in adapting to anything that comes along.

**Jessie (Yodelling Cowgirl)** - Has a similar outlook to Slinky but is a little more excitable.

**Bullseye (Woody’s Trusty Stead)** - Doesn't say much when a plan is being discussed but carries out any assigned tasks as quickly as possible and to the best of his ability.

**Aliens** – Are impressed by any Tech Toys that light up or move

**Ham (Piggy Bank)** - Thinks he knows everything... including all the reasons why something won’t work.

**Ken** – Works hard on trying to look good, but doesn't actually do much.

**Barbie** – Goes along with whatever Ken says.

**Potato Head (Mr Potato Head)**– Is opinionated and slightly confrontational...but very funny with his sometimes cutting and unique insights.

**Etch-a-Scetch** – Is partial to a system that he really likes, but only he can figure out how to use it.

**Speak & Spell** – Is all about educational value and the main word on his LCD is “Pedagogy.” If he can power up in seconds and is easy maintenance, he may constructively ask questions like “If a PC takes longer to power up and needs more IT support, what does it add to make learning more fun & engaging?”

One of the little characters from my classroom, who I can always depend on to be lots of fun (That was “LOTS OF!”...not lotso)

### **“i-Want” Tech Toys – I Don’t!!**

Andy will attest to the fact that all these colourful characters are great fun to be around and play with but there can be conflict between the old and new teaching methods. Discussing new technology with a group who have such differing views can prove challenging, as can getting any overall consensus on the best way forward.

Some of the classroom toys are quite happy with things as they are and see nothing wrong with teaching from good old dependable text books, others feel that ipads and mobile devices can improve learning outcomes. The Toys’ views are sometimes divided amongst those who have never needed batteries and the toys who are not able to operate without them – they are always plugged in or wired to something. It can be difficult for either group to understand the others’ perspective.

Some of the Toys in the classroom do try to discuss how the i-Want will aid them in their role as educators, but the toys end up spending as much time debating their views on technology generally than on the specifics of what the i-Want will do once it’s in the classroom. This is not fully discussed or assessed.

### **Party Time – New Technology**

Any time a decision about new Tech Toys is agreed, just like Andy’s birthday party, everyone is keen to know if there are any new friends (or potential threats) for them. We hear Mr Potato Head chanting “Mrs Potato Head...Mrs Potato Head...Mrs Potato Head...” knowing that this is not exactly a classroom Tech Toy, he turns to Rex and says “Hey, I can dream, can’t I?”

This is understandable, but can prove to be challenging as all the Toys in the classroom have very different requirements for the i-Want. Rex wants help with his “Roar”, Ham wants to save money, Bullseye wants to go faster, Slinky wants an extra spring in his step and good old dependable Woody... he wants to make sure Andy has whatever he needs to make learning fun.



Party Time!! We’ve Got New Tech Toys...

### **i-Want... Best Results**

The eventual outcome is a compromise, the i-Want is configured to do a little bit for everyone but nothing in particular exceptionally well; and everyone is disappointed at not having as much i-Want as they initially hoped for.

There is advice on the box from the great Tech Toy factory at MIT Sloan that says for best results configure the i-Want to do one thing in the classroom very well.

The great Tech Toy makers at Google, Amazon and Facebook et al understand this very well. But it can be difficult to get Tech Toys in the classroom like this given the requests for the Tech Toys to be configured for multiple departments & purposes. A Swiss Army knife is a great novelty on a camping trip, but we don't see too many of them in five star restaurants.

### **User Error – “My Arms are too short!!”**

Another consideration is how proficient the users will be with Tech Toys. When trying to defeat Zurg in a computer game Rex turns to Buzz and complains in frustration that he'll “never be able to defeat Zurg because of his little arms”, because he can't press the fire button and jump at the same time. This Tech Toy doesn't suit Rex so he can't complete the game without assistance. Buzz and the other Toys may be happy to offer assistance initially, but if help is required on an on-going basis then everyone may become frustrated, so Rex may decide not to use that Tech Toy anymore. He may decide to play with older, more familiar toys instead.

### **System Failure – “Well we didn't think a dinosaur would be using our Tech!!”**

Without the right level of consultation with the user in the product development stages, the Tech Toy suppliers may not have an appreciation of how limited some of the potential users' technical knowledge and skills will be. The computer game Rex is playing was designed for Andy, the developers had no idea that a toy dinosaur with short arms would be playing it.

The result is that despite all the features and functions promised – which the Tech Toy is more than capable of delivering – it never quite fulfils its potential because of the level of technical knowledge required.

### **i-Want but “it-Doesn't!”**

Whether its the result of different perspectives about technology, different configuration needs in the classroom, differing technical abilities or a combination of all these factors the end result is that there is disappointment in the classroom as the i-Want becomes more of an “it-doesn't!!

Discussion turns to whose fault this is... Did the TV advert say it could do more than it could? Did Andy ask for the wrong Tech Toy? Was it fully configured for the classrooms' needs? Was there enough training? Was the Tech Toy too advanced for the toys that were using it? Was it Buzz's obsession with those high-tech-but-no-use toys? Was it because the i-Want was just rubbish...maybe it was the Tech Toy makers fault...

### **Characters Beyond the Playroom**

Any good Tech Toy maker will, of course, consult with the classroom and ask what everyone is looking for, but may not always ask the kind of questions that get the most out of the technology.

Something the Tech Toy makers all have in common is that they only ever played with battery operated Tech Toys. Therefore they may assume that what is a basic task for them will be a basic task for everyone in the classroom, which is definitely not always the case... something that Rex and other dinosaurs will attest to.

Just like our heroes in the classroom, the Tech Toy makers have different characters and personalities. Some will have a very good understanding of, and commitment to, the classroom – they have the very best intentions and try to make great education Tech Toys. Others may be a little more sinister and simply amend existing services which were designed for other markets so they are "good enough" for the classroom in their pursuit of "new market penetration" ..

## The Tech Toy Makers

The kind of characters we might meet when looking for tech toys for the classroom include;

**Sid** – Some suppliers may be so keen to get “market share” in education and are in such a hurry that their products are not dissimilar to Andy’s next door neighbour, Sid, who combines, modifies & re-engineers old Tech Toys. What we end up with is that various bits of different technology have been hacked together and end up looking like a monster that no one wants to play with.

**Al’s Toy Barn** – Others may be so keen to turn a fast buck that they just want to make the sale, so they say what they need to get the business, then swiftly move on to the next deal, not sparing too much thought for whether the kit does or does not fit the required purpose or spec.

**Sunnydale Day Care** – In this case everyone in the organisation gets on and does good work, everyone with the exception of Lotso... who develops the wrong kind of culture. This might mean that suppliers who have a great product are let down because the sales guys promise that the service can do all sorts of things. What we end up with here is like when Buzz gets used as a hammer in the Caterpillar Room instead of an action figure...if used as a hammer too often he’ll soon break.

**Stinky Pete** – Has never been taken out of the box because it is the least desirable & least fun toy in the set. When he is eventually taken out we find that he doesn’t integrate too well and doesn’t know how to play nice with the other toys. The best thing for Stinky Pete, and everyone else, is that he gets his wish and is put in a museum.

## Just the Best!!

In some cases the Tech Toys are just the best, but;

**Molly’s Toys** – Are great fun for Molly but not for Andy. This might apply to services that suits Higher Education or schools very well. However given the subtle, but key, differences between Further Education, Higher Education & schools, not all systems will be automatically or easily transferable.

**Andy** – The Tech Toys were just the best!! Dependable, great fun and full of imagination – but things have moved on. As difficult as it may be the best thing to do here is to clear the room, donate the Tech Toys to a good cause and prepare for change. Even if the change is as difficult to come to terms with as “empty nest syndrome,” or an empty server room. If we didn’t do this our Tech Toys would still be old BBC Computers and we’d be playing Pac Man on our old Atari’s.

When we watch Toy Story it can be easy to get caught up in the drama that Woody, Buzz & the gang get up to that we forget that what is really important is Andy. This is something that Woody never forgets and we can maybe learn from – Let’s make sure that the Tech Toys we get are there for Andy when he needs them.

## Hard to say Goodbye

At the same time its worth remembering that Toy Story ends with Andy leaving for University and it is hard for him to hand Woody over to Bonnie – to say goodbye to his dependable old friend that captured his young imagination.

Maybe the same is true in Tech Story, it can be hard to know when to give up our loyal & dependable old Tech Toys that have magically blinked to life each morning and helped us to communicate & interact with all the memorable characters that populate our Tech Story classrooms.

Perhaps this is why we find excuses to put off our IT guys for as long as possible when they suggest upgrades. Maybe it's because the features, tools and taskbars have become as comfortable and as familiar to us as the colleagues we share the office with (some people may even talk more to their PCs than those colleagues?!) )

Or consider life at the "backend" and those mysterious server rooms where all the noise, cables and flashing lights reside. What do our IT guys do? They give the servers quirky names. When a new employee asks why the big server in the corner – the one that doesn't integrate with any other system – Is called "Stinky Pete" no one can remember. A name that started as an in-house IT joke has stuck for longer than anyone can remember how the joke began.

Perhaps it was named after one of the characters from one of your Tech Guys' favourite Pixar movie from their childhood. You may even have grown quite fond of clunky old "Stinky Pete" in some strange way because you've got to know its unique quirks and how to get the best out of it over the years so keep it around, perhaps for longer than we should.

Sound ridiculous? If any further evidence of how attached we get and how much we care about our Tech Toys was needed, let's not forget that the servers have more space, privacy and better heating/air conditioning than most of our offices, making them more comfortable than we are on a hot summers day...but maybe this is only fair because we do bash them to bits and still expect them to be there for us when we need them, 24/7.

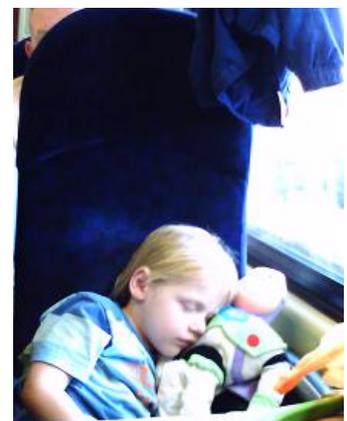
Just like Toy Story, colleges want the Tech Toys they use to be great fun for the user and want the technology to magically come to life and work for us even when we are not there.

## Happily Ever After

How do we go about getting a happy end in Tech Story? I'm afraid there is no happily ever after here because Tech Story is a new kind of story – it's an interactive adventure that is ever changing. We do however have some questions, observations & suggestions that may help with your particular Tech Story;

1) What would your "Happy ever after" be?

- Is it that your Tech Toys are fit for purpose in their practical application?
- That the technology helps to inspire curiosity & lifelong learning?
- Tech Toys that help Andy on his way to University...



A happy ending – To another adventure & a hard day's play

2) For all the Tech Toys that you use, how many systems are you 100% happy with on all aspects?

That;

- The technology does what was promised
- Staff can and do use it regularly without needing IT support
- The advantages to the user far outweigh any temptation to revert to older methods
- The level of customer service and technical support is exceptional

3) If the answers to these questions are that you have suppliers like this then:

- What are the key attributes that make the experience such a positive one for the college?
- What can FE do to make this the norm, if it is not already?

4) If there are few of these suppliers this perhaps highlights that finding our “happily ever after” may not be straightforward in Tech Story.

Maybe there is something wrong with the script. Maybe we spend too much time listening to the story & script that the tech suppliers provide – “with our system you will be able to accomplish this and that.”

Maybe it would be better if Further Education provided developers with a new script, one that details what everyone in Further Education expects from its Tech Toy suppliers;

“We want Tech Toys that are there when we need them, are as flash & high tech as Buzz, as dependable as Woody, as fast as Bullseye, flexible as Slinky, gets their squeakers & batteries replaced when required, don’t get stuck on the shelf and forgotten about... basically we want Tech Toys that are exciting, imaginative and great fun to play with”

During these challenging economic times when every penny counts, it’s more important than ever that all the characters from Tech Story come together to make sure we get our technology choices right.

Wishing you every success in finding the kind of technology that will take you, your college & your students “To infinity... and beyond” (well it had to come in somewhere...)



William Jenkins has worked in Further Education for 10 years and never ceases to be amazed at the way college IT departments and their partners are able to make all the servers & PCs we use come to life and provide us with some amazing Tech Toys for teaching & learning. This article was written while employed at Solus.

Chris Grant is IT Manager at Alton College and knows the value of the latest must have Tech Toys; but also appreciates the good old, reliable & loyal ones – he tries to make sure that the toys are there for Andy when he needs them and are in good working order!!

We would love to hear about your experiences with educational technology, you can comment on this article and connect with us on Twitter at [@Tech\\_Stories](#) [@chri5grant](#) [@altoncollege](#)