Do science centres need more romance?

Tim Smit, founder of the Eden Project,[1] said recently that 'science centres need more romance and adventure'. We asked Penny Fidler and Ian Simmons whether he's right.

Penny Fidler reflects on satisfied visitors

Each year, 20 million people visit a UK science and discovery centre or science museum. About three-quarters visit in their leisure time with family or friends. The remaining five million are school students and teachers participating in organised school groups to enhance school-based science learning.

One of the key goals of science and discovery centres is to offer school children, families and adults unusual opportunities to explore, discover, question, delve, test and experiment. The aim is not simply to fill people with facts, but to take them on a journey to spark their curiosity; to encourage them to continue asking questions about the world long after they leave our centres. Science and discovery centres aim to achieve this sense of wonder and excitement through hands-on interactive experiences, encouraging visitors to try things out for themselves.

Romance and adventure

So do science and discovery centres need more romance and adventure?

My response is: are there any areas of life that would not benefit from a little more romance and adventure?

However, romance and adventure are not enough. Science centres generally have story-telling, art, family shows, theatre, and immersive environments which aim to inspire a broad range of people in a variety of subject areas. We, like all cultural sectors, fully acknowledge there is scope to improve, grow and find new ways of inspiring people.

Different inspirations

We should however remember that, in the context of science, inspiration comes from different places for different people. For some people it is having their natural curiosity nurtured as they are encouraged to ask questions, or perhaps talking quietly with a scientist with whom they relate because of a shared local accent. For others it might be seeing their own DNA in a molecular biology workshop, being part of an 'exploding chemistry' workshop or seeing the beauty of a spider's web.

Sometimes people mistakenly see science and discovery centres as just science exhibitions. This is merely the tip of the iceberg. Taking a single example, last year one of our 50 science centres attracted around 260,000 people, of whom 78,000 were school students and teachers. Of the remaining 182,000 leisure visitors, 70,000 people participated in science events such as family science shows, lab workshops, sleepovers, story-telling, object handling sessions, meet the scientist events and community-based events. Over 62,000 visited the planetarium to sit back and enjoy the stars.

Meeting challenges

It is hard to ignore people voting with their feet. Tens of thousands of teachers nationally feel these out-of-school science experiences are sufficiently inspirational and worthwhile to warrant the effort of taking students on trips to centres. Millions of families and leisure visitors feel the experience is sufficiently enjoyable to spend their valuable free time visiting. This is all the more impressive given there is no government subsidy, so the vast majority of the UK's science and discovery centres must charge an entry fee. Would people really pay to go if they didn't enjoy it?

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As a nation, and as a global society we have some huge challenges ahead. We need our young people to be confident to experiment, to explore and to try to change the future. We need our adults and aging population to better understand the sciences and to lobby for the policy changes needed for a low carbon future. We need to nurture the brightest young minds and bring back the adventure and delight of exploring and discovering the world around us. As the only UK network of year-round publicly-accessible science venues, the UK's charitable science and discovery centres have both the infrastructure and the desire to work towards this.

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Ian Simmons prods the weak spots

As somebody who has been in the science centre business now for over 20 years, I have to agree with Tim Smit.

If we were to pretend that at least a few centres weren't up to scratch, we'd probably be deluding ourselves. After all, Sturgeon's Law (coined by science fiction writer Theodore Sturgeon) states that 'Ninety percent of everything is crud'. But a lot more than 10 per cent of science centres are any good, so they're probably ahead of the averages.

Lack of public criticism

Still, that's not to say that there are not weak spots. One of the things that we lack in the science communication field is a robust culture of criticism. There is nowhere that routinely reviews science centre activities in the high profile way that broadsheet culture sections review art exhibitions, or theatre or other cultural forms, so we get away lightly.

Without a strong tradition of that kind, there is little that really forces us to look at what we are doing and up our game. Sure, people evaluate, but that's not what I'm talking about. Where are the Michael Billingtons and Brian Sewells of science communication?

Abolish learning goals

The UK has about the strongest and most innovative science centre community in Europe, but still we have some centres that have stagnated in their mid-90s prime. There are still one or two with no professional scientists on the staff, and a good number with clunky, narrow and unsatisfying exhibitions based on the idea that interactives should have 'learning goals', which misunderstands what the whole business is about.

Learning goals are brilliant for classrooms – and increasingly science centres are also offering excellent taught activities to complement the exhibitions. But the actual exhibitions, whose audience is mainly families on leisure visits, should never have been about learning goals. They are about inspiring, exciting, enthusing the visitors, capturing their curiosity and imagination so that they want to learn more using the things that are best at formal learning – books, classes and so on.

It's the same with museums too – not great at delivering learning through casual exhibition visits, but superb at inspiring people. Ask anyone who visited museums or science centres as a child what they remember, and I guarantee it won't be a fact, it'll be an experience that stayed with them. We should play to this strength.

Romance returning

Tim Smit called for more mystery, romance and drama in science centres and he's right. His own Eden Project does this supremely well, attracting people in droves and sending them away enthused about the natural world. That is our job too, to create the enthusiasm for science that can be channelled into learning.

Fortunately he's not the only person to have noticed this. The idea that science centres should contain either a random scatter of surprise/resolution-based interactives, or a rather conservative, text/interactive/object storyline, is increasingly being challenged by centres that are looking to create open-ended, intriguing exhibits that visitors can investigate for themselves and use to develop their innate scientific skills.

This started with the San Francisco Exploratorium's Active Prolonged Engagement project, which influenced the latest version of Launchpad at the Science Museum and is steadily spreading further. My own centre is now building an exhibition based on the idea of curiosity, and other centres in the UK are following similar paths. They are likely to emerge as world leaders in this approach, bringing back the mystery, romance and excitement of science to the UK's science centres.

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