



James Purnell is President and Vice-Chancellor of University of the Arts London (UAL). He previously held a number of roles at the BBC, including Head of Corporate Planning, Director of Strategy and Digital, and Director, Radio & Education. While at the BBC he launched BBC Sounds and also oversaw the development of the BBC's education strategy, including providing support for parents and students learning at home during the COVID-19 pandemic. He has been a board member of the Young Vic, the Royal National Theatre, and the British Film Institute, and produced the documentary *One Mile Away* which won Best Film at The Edinburgh Film Festival in 2012. He was the elected MP for Stalybridge and Hyde (2001 – 2010), and served as Secretary of State for Culture, Media and Sport (2007 – 2008) and for Work and Pensions (2008 – 2009).

Science looks good on the catwalk

by James Purnell

Lab-grown fur, fish-skin leather and algae lipstick are all set to storm the catwalk over the next decade, as design-science becomes a key part of a fashion student's skillset.

Traditionally, education policy keeps science and art at a safe distance, openly favouring one above the other. But the imperatives of environmental and social change are breaking down such silos in higher education, and policy needs to catch up. Already, the University of the Arts London (UAL) – the world's leading undergraduate university in art and design – is collaborating with science institutions to work at the forefront of biodesign. This emergent movement combines design and science insights to target contemporary challenges such as climate change, low energy manufacturing, natural resources depletion, human and environmental health.

Strange as it would have seemed 10 years ago, bio-labs are the future of creativity and part of the answer to climate change.

Biology and biodesign

This is driven by innovation partnerships between industry, STEM and creative universities. In April 2022, LVMH, Imperial College London and Central Saint Martins UAL announced a strategic collaboration based on design-science academic research to prototype new bio-textiles. The focus of this two-year research initiative is new lab-grown fur fibres for luxury fashion. For the first time, keratin will be the focus of a study to develop a fibre capable of mimicking a range of luxury materials including fur.

“Trained creative people are leading the conversations and sharing in the research that makes society think differently. Today's young people understand that education works in several dimensions, creatively and scientifically.”

This collaboration between world leaders in their fields aims to create an entirely new product that helps protect the planet. It is based on Imperial's expertise in synthetic biology and Central Saint Martins' expertise in biodesign.

The fashion sector is a great place to trial this sort of collaboration, because it is one of the world's wealthiest and most polluting sectors, responsible for 4% of global emissions. Using the creative process, our graduates are helping the sector to take emissions out of the supply chain and rethink what happens to garments once they've been used. It has reached the point that the two strands are increasingly entwined in industry thinking: how we reduce emissions and what looks good on the catwalk.

“Storytelling is an important aspect of creative practice.”

This is just one way in which the creative economy can be an extraordinary force for good. UAL’s purpose has always been “to change society through our knowledge and creativity”, an aim which we feel applies to the creative economy as a whole.

Collaboration and storytelling

The power of creative thinking, as practised at UAL and throughout the sector, is not only in vocational, industrial application. It’s a holistic approach to problem-solving based on practical, hands-on approaches combined with a deep understanding of human nature – knowing, for example, that the human need for luxury can be met in new ways.

Storytelling is an important aspect of creative practice. Just look at how the idea of a minimum wage – and indeed the living wage – has become a mainstream idea, one that is accepted by the majority. Not so long ago, this was a radical, to some threatening, idea. Now, it forms part of the core political narrative.

Take, for example, the person who cleaned the office of the Chancellor of the Exchequer, writing an open letter to him about how she struggled to make ends meet. This storytelling humanised the injustice of low-pay, just one example of how creative approaches to the world’s biggest issues can help us solve them.

How creativity impacts society

Creativity is also making a huge impact on assumptions on race and climate change.

UAL Professor Mark Sealy set up the Autograph gallery in London, using photography and film to highlight race, representation, human rights and social justice. A recent exhibition tackled the visual imagery that shapes our idea of corporate leadership, notably that CEOs of big companies are white.

There has been a big shift in how the public thinks about climate change. This has much to do with the work of IPCC, the scientists, COP and the rest. We tend to neglect the fact that their work is entwined with and informed by how the issue is presented in galleries, children’s books, or even Hollywood.

Trained creative people are leading the conversations and sharing in the research that makes society think differently. Today’s young people understand that education works in several dimensions, creatively and scientifically. Demand for the kind of incredibly high-calibre courses we provide is rocketing, and we are focusing this demand (in the shape of our research and our graduates) on the world’s needs and problems.

But public and institutional understanding lags their insights. There is an idea, popular among some opinion-formers, that too many students are opting for creative subjects post-18, that they are low value and not worth the investment based on the future earnings of graduates.

“The creative industries are a vital part of the economy – and are powered by creative graduates... reducing the number of creative graduates would damage the economy and reduce the overall tax take.”

The power of creative graduates

This is looking at the wrong end of the telescope. The creative industries are a vital part of the economy – and are powered by creative graduates. Yes, we need to pay creative professionals more and let them keep their intellectual property. But reducing the number of creative graduates would damage the economy and reduce the overall tax take.

Those with this policy mindset should actually talk to the people doing these degrees. By and large they are delighted with what they are doing. And in fact, they didn't always do them to make money: they did them because they instinctively value creative practice. And because they are not completely led by one set of data.

They understand that a training in creativity and a creative problem-solving can genuinely make the world a better place.

The tide will turn in Westminster – one day it will come back in our favour. In the meantime, we will concentrate on providing the kind of education that allows us to not only imagine a better future, but prototype it and build it too.

This document is part of the Royal Society's Envision project. Envision brings together thought leaders to discuss what the UK education system should look like in order to prepare students to flourish in a changing world of work in the 21st century.

The views in this piece are those of the author and do not necessarily represent those of the Royal Society.

The text of this work is licensed under the terms of the Creative Commons Attribution License which permits unrestricted use, provided the original author and source are credited. The license is available at: creativecommons.org/licenses/by/4.0

Issued: June 2022 DES7861_2 © The Royal Society

