

The Leverhulme Trust

Funding for the future



'Blue skies' research is inherently risky as the value and indeed real-world application of research projects cannot be guaranteed. Yet, this type of curiosity-driven research plays an important role, not least in increasing public interest in science. The Leverhulme Trust, a UK-based funding body, encourages academics to research what they think are the important frontiers of their field. Research Outreach was privileged to speak with Anna Vignoles, Director of the Trust, about innovative research they have funded and the current challenges the UK research and education systems are facing.

The Leverhulme Trust is a UK-based funding body committed to sponsoring curiosity-driven 'blue skies' research. The Trust supports researchers from a variety of backgrounds and skillsets both within, and outside of, traditional research routes – also offering sponsorship to researchers in crisis within the UK's vast research landscape.

Research Outreach was privileged to talk with Anna Vignoles, Director of the Trust, about her esteemed career in research funding and collaboration, as well as what the future holds for existing and prospective researchers working in science and science-related subjects.

Could you tell us a bit more about the Leverhulme Trust and your role as director?

It is a privilege to lead the Leverhulme Trust, one of the largest research funders in the UK. We fund people at all career stages and from across all the subject disciplines, except for medicine. Our particular focus is to support outstanding 'blue skies' research and we invest about £100m a year, largely into UK university research.

When appointed director in 2021, I learned very quickly that many academics are hugely supportive and very fond of the Trust. One reason for this is the Trust's

approach to funding, which encourages academics to research what they think are the important frontiers of their field. Many of the project ideas we receive are therefore both 'risky' in the sense that they may not succeed scientifically, and require interdisciplinary collaboration. This approach leads to some very exciting research and, in my view, is more likely to result in genuinely innovative ideas.

The Trust plays an important part in supporting the excellent research base that we have here in UK universities. My job as director is to ensure that our grant schemes offer funding opportunities for a wide range of academics, whatever their

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stage of career. I want to make sure our schemes are inclusive and encourage a more diverse range of applicants. So, if an academic has an important research idea that might not have any obvious immediate impact but could prove vital in the future, then they should think about coming to us.

Could you tell us a little bit about your research background and how this has prepared you in your role?

I was a late starter in academia, having spent several years working in human

resources. We have far too many people who lack even basic numeracy and literacy skills, which holds them back in the world of work. I wanted to understand why this continued to be so, despite most people remaining in school until the age of 16 at least! So, when an opportunity arose to do a PhD focused on understanding the relationship between education and labour markets, I jumped at it.

I spent three very happy years researching the UK education and skills system at the University of Newcastle with a



Anna Vignoles, Director of the Leverhulme Trust, advocates funding for the future.

fantastic PhD supervisor, Professor Peter Dolton. From there I had a long career in academia, starting at the London School of Economics (LSE), moving to University College London (UCL), and ending up at the University of Cambridge. I was incredibly lucky to be working in the field of the economics of education just as there was a resurgence of interest in the area – partly driven by the very apparent UK skills shortages and acute inequalities in earnings. I spent much of my academic career encouraging policymakers to engage with robust research evidence



Collaboration, transdisciplinary, and a vision for the future are essential for finding unique solutions to societal challenges.

on issues related to social mobility, and recommending how we might better organise and fund our education system.

My understanding of the causes of educational inequalities and the vital importance of skills to our Research and Development (R&D) sector has undoubtedly influenced the way I approach my job. The Trust plays an important role in the funding landscape and influences the opportunities facing academics and indeed the direction of their careers. We have a responsibility to ensure our funding schemes enable a diverse range of talented people to become outstanding researchers.

What immediate challenges does the UK, European, and global research funding landscape face, and how is the Leverhulme Trust responding to these challenges?

The UK research system is currently facing several challenges, some of which threaten its ability to remain globally competitive.

Along with almost everybody else who is involved in research, I have been urging the UK government to ensure it

continued to participate in EU research programmes. The EU Horizon programme is particularly important. It provides blue skies research funding for collaborative research projects, enabling UK researchers to work with their European counterparts. The loss of access to this programme would seriously undermine the UK's ability to remain at the forefront of global research and innovation.

Another pressing problem is the need for adequate investment in R&D by both companies and the government. While the government rightly aspires for the UK to be a science powerhouse, there remains a significant gap between what is needed in terms of investment and what is currently planned. There is a particular need to increase investment in both intermediate and high-level skills.

Another challenge is the university funding system. The tuition fee income from domestic students has eroded in value dramatically with higher inflation. This means that the sector relies on cross-subsidising both domestic students and the costs of research with international student fee income. While international students are a vitally important part

of the UK higher education system, increasing this cross-subsidy further is not viable in the long-run. It is time that we addressed the issue of how we fund higher education teaching and research in a sustainable manner.

The Trust has responded to these challenges. In terms of the skills issue, we have increased our investment in our doctoral scholarship scheme. Post-Brexit, we have introduced new grants to attract top global talent to the UK, namely via our Leverhulme International Professorships. More generally, we have increased investment in large blue skies research schemes that encourage international collaboration and have the potential to help the UK to be a global leader in key research fields.

The Leverhulme Trust works closely with research funding organisations, for example the British Academy and the Council for At-Risk Academics (Cara).

Could you tell us a little bit more about this collaboration and its implications? I am very proud that we are partnering with the British Academy and Cara to provide financial support for researchers at risk. [This scheme](#) was introduced in

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2022 to help academics facing personal risk in their home country, who are now living in the UK. We believe that it is very important to support these researchers, so they can continue their work. That's why we have invested up to £1 million over five years to establish the [Leverhulme Trust Researchers at Risk Research Support Grants](#).

This scheme provides starter grants for academics who have already been admitted to the UK and are available to academics at risk regardless of their country of origin. Many of the applications have been from Ukrainian researchers. The sums available are modest, but judging from the strong demand we have had so far for these

grants, they clearly fill a much-needed funding gap.

Why are collaborative networks so important for the future of education and research?

Collaborative partnerships are vital to the Trust. For example, we work extensively with the Royal Society, the British Academy, and the Royal Academy of Engineering. We partner with them on a variety of different grant schemes and of course we benefit hugely from their extensive links to many academics and universities.

For example, our research fellowship scheme is offered by all three of the learned academies and is an important

source of funding for experienced academics who need time out from teaching or administration to focus on their research. The scheme is very popular across a wide range of disciplines and does its job of enabling busy academics to maintain their research momentum.

Equally, we have a more targeted scheme that the British Academy manages, providing small grants for applicants from the arts, humanities, and social sciences. There are fewer sources of funding for these subjects and despite providing modest sums of money, it is one of our most popular schemes.

We also collaborate with a range of other funders on issues that are central to the health of the UK research sector. We have recently been working with UKRI and other research charities to develop ideas around the use of a more inclusive 'narrative CV', where applicants can evidence a wide range of experience beyond that which is typically included in a traditional CV. Historically, academic success was measured quite narrowly, largely by the number of publications and

Thought Leader

citations. A narrative CV should enable academics with less linear academic paths to showcase a broader set of skills and contributions.

What challenges does the UK school system face?

My own research suggests that children from disadvantaged backgrounds face a significant disadvantage in terms of educational outcomes. The gap between the performance of children from deprived areas and their more affluent peers is stubbornly persistent, despite significant investment in policies aimed at closing the gap. This is partly because stagnant economic growth and rising income inequality have contributed to the persistence of child poverty, which is a major driver of poor pupil outcomes. Further, the UK also has a teacher recruitment and retention crisis that further exacerbates these issues. Addressing these challenges will require a sustained effort to increase funding and to improve teacher training and retention.

How is the Leverhulme Trust helping to improve existing, and forming new routes to education?

We should be striving for a system in which talented students can pursue a research career, regardless of their background. This is essential if we are going to ensure a diverse research workforce that can innovate and tackle the important issues central to human prosperity. That's why we are proud to offer our new Leverhulme doctoral scholarships programme, which provides full funding for both fees and living costs to support students in their doctoral studies in all disciplines at UK universities.

We are particularly committed to supporting students from underrepresented backgrounds, including Black students and those from low-income backgrounds. We recognise that these students often face additional challenges in accessing and funding higher education, and our scheme is designed to provide additional support to help them succeed. For example, we have provided additional funding for them to complete a Masters' degree prior to starting their doctoral studies.

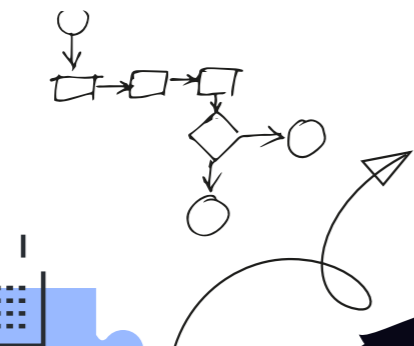
We also believe in the value that international students bring to the UK

higher education community. Despite the challenges posed by Brexit and higher international fees for EU students, we are committed to continuing to attract talented international students to the UK and our new doctoral scholarship scheme enables universities to do just this.

What kind of impact has the research you have funded had?

Our track record of funding projects that have had a significant societal impact is very good.

By way of examples, our funded research has improved the way forensic science is undertaken in the UK, helped



the Government understand the impact of COVID-19 on different people, and developed technologies that have the potential to limit climate change via the reduction of CO₂ emissions. Moreover, we have funded projects that have helped improve social conditions, for example leading to social and environmental protraction in small scale mining operations in

Latin America. We have also funded projects that have had an impact on the public's understanding of history, most recently with research into Richard III whose remains were found in a car park in Leicester. So, although we do not impose dissemination or outreach conditions on our grant recipients, we do provide students and researchers with support to help them maximise the impact of their research.

How do you see the future of education and research changing with breakthroughs in technology and data processing, particularly in relation to artificial intelligence (AI) tools?



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I see the future of education and research being heavily influenced by AI. Arguably, one of the most significant changes will be in the way research is conducted. AI

tools can enable researchers to analyse large datasets much more quickly and accurately than ever before, including complex qualitative data. This has the potential to reduce the time taken to do certain research tasks, as well as

very unequal. I also fear a mismatch between what happens inside education institutions and what will be happening in commercial settings.

There is also undoubtedly a risk that AI could exacerbate existing inequalities, both via unequal access to it and algorithmic bias. For example, if AI algorithms are trained on biased datasets, they may perpetuate existing biases and discrimination in areas such as hiring, lending, and criminal justice. Indeed, the Leverhulme Centre for the Future of Intelligence at the University of Cambridge has already been researching these challenges for many years. We need to do more to invest in developing AI tools and technologies that are accessible and inclusive, and to ensure that the benefits of these tools are shared equitably across society.

I think there is a clear research agenda here. We should focus on developing methods to detect and mitigate bias in AI algorithms. We need to do more to explore the ethical implications of using AI technology in various contexts and to ensure that AI technology is accessible and inclusive. However, for me the big issue that needs to be addressed rapidly is safety. We need 'fit for purpose' governance frameworks and regulations that ensure that AI technology is developed and used responsibly. There is still a lot of work to be done in this field.

providing insights that may enable more breakthroughs in many fields.

Certainly, AI is going to impact on teaching and learning in schools and universities. It has huge potential to provide personalised learning experiences for students. However, underinvestment in technology has been a theme in education for the last 30 years and access to AI is likely to remain

The Leverhulme Trust aims to support researchers at all stages of their research journey, from all backgrounds, and across the globe.

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