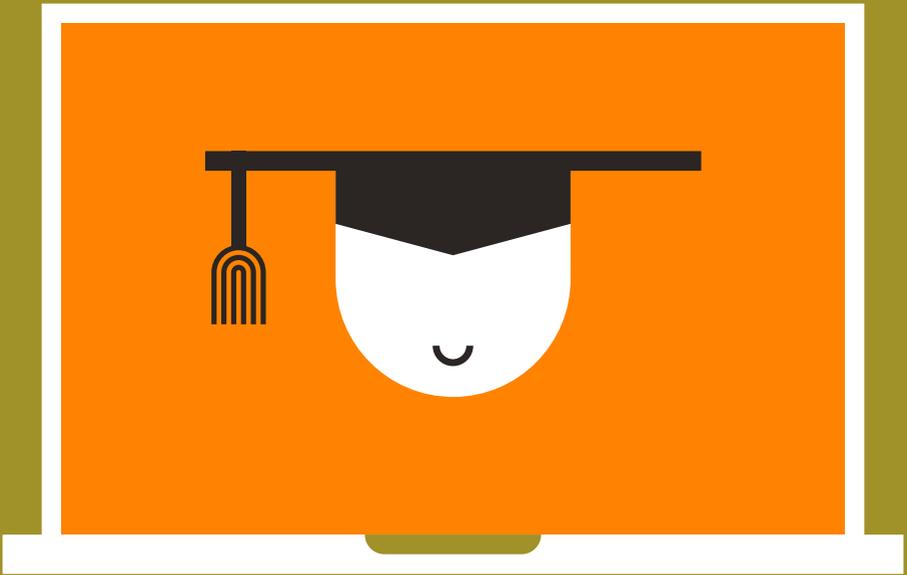


Nesta's work in Education



**Nesta is a global innovation foundation.
We back new ideas to tackle the big challenges of
our time.**

We use our knowledge, networks, funding and skills - working in partnership with others, including governments, businesses and charities. We are a UK charity but work all over the world, supported by a financial endowment.

We see Making sense of opportunities and challenges.

We spark Generating new ideas.

We shape Helping to test, grow and adapt promising solutions.

We shift Changing whole systems.

The kinds of big challenges we tackle include ageing; stretched public services; a fast changing jobs market and people feeling disempowered. We focus on areas where the combination of digital technology, empowered individuals, and better use of data and evidence can have the biggest impact.



How Nesta is tackling the big challenges of our time: Our work in education

The challenge: How to educate young people for a future where work will be very different from today.

Nesta's response: We look for ways to prepare young people for good jobs in the future - testing and growing approaches to teaching skills that will complement new technologies and be relevant in a more automated world. We also focus on improving access and effectiveness in digital learning technologies.

What we want to see: All young people with the skills they need for future work and an education system making better use of technology, and people's time and resources beyond the school.

This means:

- **Fostering the right skills in young people** like creativity, collaborative problem-solving and digital skills. Our *Solved! Making the Case for Collaborative Problem-Solving* report and forthcoming report with Pearson on the future of skills show that problem-solving with others is more important than ever for future work, and helps kids succeed in the classroom now.

- **Promoting the most effective digital learning technologies** and making them available to all young people. For example, Nesta Impact Investments has supported several edtech pioneers, including Cogbooks, Third Space Learning, Arbor Education and Getmyfirstjob. We also recently launched Rocket Fund - a pilot platform to crowdfund technology products for teachers who want to test and experiment within the classroom.
- **Expanding access to private tuition so that all disadvantaged pupils can benefit.** Working with the Office of Civil Society, we are backing organisations using volunteers and remote-tutoring technology, to improve access and affordability of tutoring, and grow evidence of what is proven to raise attainment. We are calling for quality volunteer tutoring to be provided to all disadvantaged Year Nine and Ten pupils.

Nesta has backed new ideas in education since we were founded in 1998 - supporting over 300 education-related initiatives, many of which have become mainstream.

We never work alone. Our partners have included: The BBC, Nominet Trust, Mozilla, Santander, Tata, the Office of Civil Society, the Raspberry Pi Foundation, the Scout Association, Microsoft, Pearson, the Education Endowment Foundation and the National Foundation for Educational Research.

Nesta approaches challenges from multiple angles

We combine thinking and doing to bring ideas to life, test them on the ground, demonstrate what works and help the best to grow.

We see new opportunities and challenges

Futures and explorations: Our latest research, in partnership with global education company Pearson, is an ambitious attempt to map future jobs and skills demand in 2030 in the UK and US, and suggest what educators and policymakers can do to address skills gaps. Previously we have made the case for why the UK should create one million new creative jobs by 2030, shown how digital technologies will be an essential part of the story, and offered policy recommendations.

Research: Nesta has championed rigorous experimental methods in decision making in education. Our *Decoding Learning* report found that nearly £500 million was spent on ICT equipment in the UK in 2010-11 alone, with little evidence of improvements in learning. We then developed new frameworks for evaluating digital innovations in education, and worked with Pearson to show how evidence can be used in the development of new educational products and services.

We have run experiments to explore the effectiveness of promising learning technologies in schools - such as flipped learning (where students are introduced to new topics online before the class, and lesson time is used for more active learning, such as discussion and problem-solving), remote tutoring, and real-time lesson transcription. Similarly, building on our Solved! report, we are running experiments to promote collaborative problem-solving in coding, maths and science.

Nesta is using cutting edge techniques from data science, such as machine learning and interactive data visualisation, to create labour market statistics from online job adverts. Our aim is to provide granular information on employers' skills needs to policymakers and timely intelligence for learners and job seekers. In the next two years the Economics Statistics Centre of Excellence (run by Nesta for the Office for National Statistics, alongside NIESR, King's College London, Cambridge and Strathclyde Universities) will explore how this information can be used for official labour market statistics.

We spark creative solutions from many sources

Early stage innovation programmes: We run early-stage innovation programmes that discover and incubate new practice. Our funding programmes incorporate mentoring, capacity-building and prototyping to enable early testing. For example:

- Since 2012 (with Nominet Trust) we have supported 14 organisations offering young people experiences of digital making outside of the formal curriculum – e.g. building apps, games, websites or digital fashion through workshops, home kits and clubs. We have supported the early growth of Apps for Good and CoderDojo, and even sponsored the Scout's new Digital Maker badge. In partnership with the Office of Civil Society, we have helped Code Club grow from 30 to 5,500 clubs across the UK with over 76,000 members.

- Every disadvantaged pupil should be able to access a volunteer tutor - virtually or in person. Our [Click Connect Learn](#) fund with the Office for Civil Society is funding organisations that are prototyping on-line tutoring to achieve this ambition of national scale.

Incubating innovation in-house: When we are confident that there is an unmet need, Nesta sometimes incubates innovation in-house. Nesta is currently piloting [Rocket Fund](#) - a prototype crowdfunding platform for teachers to purchase technology products that they wish to test in the classroom. We're at an early stage of testing but one longer term goal is to support teachers to track the impact of their interventions and to make it easier to find out what teachers think works best.

Challenge prizes: Challenge prizes are one of a family of 'open innovation' methods tested and refined by Nesta, that help organisations tap brains far beyond their own boundaries. Nesta's [Challenge Prize Centre](#) is behind the [Longitude Explorer Prize](#) which supports 11-16 year olds to solve a challenge using technology. This year, the prize challenges young people to use the Internet of Things to improve the health and wellbeing of people in the UK. 2017 will also see us launch a major new prize for young people with our partner, Tata.

We shape the most promising ideas so they can work at scale

Scaling innovation in education: We run later-stage innovation funds to grow proven innovations. For example, since 2013 (in partnership with the Office of Civil Society) we have scaled initiatives that harness 'people power' outside of school to tackle educational disadvantage - distributing over £2 million in grant funding to organisations reaching 120,000+ young people and mobilising 8,000+ volunteers; and publishing randomised control trial evidence of what works.

Impact investments: Nesta has used investment to support innovation for nearly 20 years. We seek positive financial and social returns by investing in innovative approaches and technologies. We are one of the most active edtech investors in Europe, with investments that span the sector, from Cogbooks creating an adaptive learning platform, to Arbor Education providing management information systems to school. We recently reinvested in Third Space Learning, a programme that raises attainment by connecting primary school pupils with quality maths tutors abroad via a secure web platform.

We shift systems in a new direction

Policy influence: We contribute to national policy debates such as the House of Lords select committee on Digital Skills and the UK Digital Skills Taskforce. Nesta's landmark *Next Gen* report influenced the government to introduce computer science into the English national curriculum from age five to 14, by setting out the case for wholesale reforms to the school ICT curriculum.

Convening and campaigning for change: Nesta played a role persuading other big players to make young digital skills a priority - culminating in the BBC's Make it Digital campaign, a major push on coding and digital creativity in 2015 across all their platforms. Nesta also led the Make Things Do Stuff consortium in a campaign to get more young people to create, not just use, digital technologies. The consortium included over 70 organisations from Microsoft to the Scout Association and provided a directory of local and online digital making activities. Launched by the British Chancellor, George Osborne, in 2013, it led to over 100,000 young digital making experiences.

CASE STUDY

The Scout Association Digital Makers Badge



The challenge: The Scout Association wanted to update their IT Badge and embrace the importance of learning computing outside of the classroom.

Our intervention: Nesta worked with the Scouts to shape and launch their new Digital Maker badge. We brought in Linda Sandvik (one of the co-founders of Code Club) to develop resources for the badge - testing them with volunteers, youth members and tech experts. A great example was 'Sandwich Bot' - how to program your Scout leader to make a jam sandwich.

The result: One of the longest established youth organisations in the world brought digital making skills to their network of 400,000 young people across the UK. The work led to a new partnership between the Scouts and the Vodafone Foundation to launch a digital manifesto.

Not everything we've done or supported has worked.

For example ...

Our idiscover programme worked with secondary schools across the UK to test a new model for developing young people's innovation skills. Students were given credits to choose from a variety of learning experiences, set up as real-world problems and supported by external professionals. Whilst young people enjoyed the experiences, the programme did not create longer term impact on young people's creativity and innovation skills.

Our goals: By 2021, Nesta will have...

Influenced policy and practice on the skills needed for the future workplace, such as problem-solving, collaboration and creative skills. From industry to educators, we'll work with partners to promote better skills development across the talent pipeline.

Brought quality tutoring to those who need it most, helping 170,000 disadvantaged students do better in their GCSEs or equivalent.

Made it easier for teachers to access and experiment with affordable and evidence-driven education technology, helping 500,000 school children.

If you'd like to find out more about Nesta's work in education, please contact: education@nesta.org.uk

Or visit: www.nesta.org.uk/areas-work/education

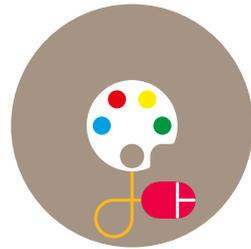
Our five priority fields



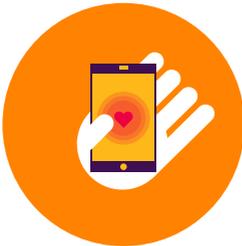
Education



Government
innovation



The creative economy,
arts and culture



Health



Innovation
policy

At Nesta we are experts in methods for innovation. We apply these methods in priority fields where there are big challenges and our capacities are suited to the action that's needed: **health; education; government innovation; the creative economy, arts and culture; and innovation policy.** In each field we bring together research, funding for practical work, convening and advocacy.



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