D+E CENTRE FOR RESEARCH IN DIGITAL EDUCATION

REPORT 2026



THE UNIVERSITY of EDINBURGH

The Centre researches the impact of technology on education across all sectors, from early years and schooling to higher education and informal lifelong learning. Based in Moray House School of Education and Sport, and affiliated with the Edinburgh Futures Institute, we work with teachers, government and third sector organisations to understand what technological change means for the present and the future of education.

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EDITORIAL

The Centre for Research in Digital Education has long been one of the world's leading research hubs for critical, impactful and highly original research on education and technology. I want to use this editorial simply to surface the depth and range of the work we have done over the last year. This is critical, interdisciplinary, actionable research with global scope, high regional impact and relevance across all sectors of education.

Professor Siân Bayne
Centre Director



Responsible AI in Education, local and global: our research has supported all sectors of education to engage critically with AI, helping education professionals develop their understanding of responsible AI futures, from Scottish schools to policymaking teams across Europe, the Middle East and North Africa, Asia and Pacific regions.

Education infrastructure and AI governance: we have generated essential new critical insights into how AI and EdTech are reconfiguring knowledge, value and labour infrastructures in education.

AI literacy and rights, for children and teachers: we have helped professional teachers develop pedagogy to support data and AI literacy, and helped advance understanding of children's AI literacy from a rights perspective.

Embodied learning: we have informed how young children can understand and critique personal data through embodied and tangible experiences, and we have done vital critical work on educational genomics as a source of intervention and governance.

Digital futures and imaginaries: we have developed novel theoretical and methodological engagements with the idea of education futures, supporting radical futures thinking across sectors.

Global and decolonial digital education: our research on education in the majority world, among forcibly displaced people and in postcolonial settings has developed new thinking and evidence on equity, access and the value of pluriversal perspectives.

Interdisciplinary and engaged learning spaces: we have researched digital and 'undisciplined' learning spaces and surfaced their key challenges and value for learning and for institutions.

You can read more about all the above in this report, and on our website at: de.ed.ac.uk



RECENT EVENTS

Over the past academic year, we hosted ten seminars and one public lecture, reaching an audience of over 1,500 including researchers, education practitioners, policymakers, students and the general public. The seminar series welcomed internal and international speakers covering a broad range of topics, from technological visions in Sub-Saharan Africa to sustainability and labour law in the world of AI. Our Stewart Alan Robertson public lecture was given by Professor Matti Tedre from the University of Eastern Finland, who discussed Finland's AI literacy programme, Generation AI, in his talk on 'AI Education for Meaningful Life, Life Together, and Life on the Planet'.

TOTAL ENROLLED: 1556

↑ More info

SEMINAR SERIES



Joshua Travis Brown: Competition, innovation and the collapse of American higher education

More info ↗



Lindsay Weinberg and Anish Vanaik: Invited eye – astroveillance and the digital complaint

More info ↗



James Lamb, Joe Noteboom, Jen Ross: Exploring hybrid teaching through a lens of choreography

More info ↗



Ayça Atabey: Child rights and AI regulation – a reality check

More info ↗



Colm O'Neill: Ruinous EdTech – higher education and computing's excesses

More info ↗



Araba Sey: Connections and disconnections in technological visions for development in sub-Saharan Africa

More info ↗



Dushani Perera: Use of data sculpture to encourage sustainable practices by visualising household consumption

More info ↗



Ingrid Forsler: The digital backlash in education: panic, politics, or pedagogy?

More info ↗



Dewa Wardak: AI policy in higher education through an ecopedagogical frame

More info ↗



Public Lecture, Matti Tedre: AI education for meaningful life, life together, and life on the planet

More info ↗



Michele Molè: The labour the law forgot. The commodification of everyone's cognitive-relational work in the AI economy

More info ↗



PEOPLE



Professor Siân Bayne
Chair in Digital Education



Dr Michael Gallagher
Senior Lecturer in Digital Education



Professor Andrew Manches
Chair in Children and Technology



Professor Judy Robertson
Chair in Digital Learning

Centre Director



Professor Jen Ross
Professor of Digital Culture and Education Futures

Centre co-director



Dr Ben Williamson
Senior Lecturer in Digital Education

Centre co-director



Dr Serdar Abaçi
Lecturer in Data and Digital Literacies

Centre co-director



Dr Ayça Atabey
Post-Doctoral Research Associate

Centre co-director



Megan Baker
Research Project Administrator, Grasping Data

Centre co-director



Dr Seongsook Choi
Senior Lecturer in Interdisciplinary Studies



Dr Huw Davies
Lecturer in Digital Education



Dr Alice Dias Lopes
Lecturer in Data and Education

PEOPLE [CONT.]



Dr Peter Evans
Senior Lecturer



Kate Farrell
Director of Curriculum Development and Professional Learning, Data Education in Schools



Angela Hunter
Centre Administrator



Dr Jasmeen Kanwal
Project Officer, Data Education in Schools



Dr Janja Komljenovic
Senior Lecturer in Education Futures



Dr James Lamb
Lecturer in Digital Education



Tommy Lawson
Schools Technology Advisor, Data Education in Schools



Dr Rovincer Najjuma
Lecturer in Digital Education and the Global South



Clara O'Shea
Associate Lecturer



Dr David Overend
Lecturer in Interdisciplinary Studies



Dr Giovanna Pasquariello
Impact and Engagement Administrator



Dr Dushani Perera
Postdoctoral Research Associate



Antonia Sewell
Project Officer, Data Education in Schools



Dr Daniel Shephard
Lecturer in Comparative Education and Education Policy



Jo Spiller
Director of Operations and Partnerships, Data Education in Schools



Dr Cara Wilson
Lecturer in Children and Technology

PHD RESEARCHERS



Stuart Allan
Space-time, technology and posthuman subjectivity in 'offline-online' digital education



Ibtisam Alrushaidi
Investigating the influence of digital writing tools on student writing performance, autonomy, and academic integrity



Giorgi Amirkhanashvili
Pedagogical methods and approaches for teaching data literacy to children at early primary level in Scotland



Elma Atic
Performing future imaginary of data-driven university: case Study of Qatar University



Ari Beckingham
Designing emerging digital technologies for young learners in informal learning environments



Fernando Carvallo Arrau
Higher education and social structure – consequences of HE massification and neoliberal policies in Chile



Christie Chan
Curatorial and digitisation practices promoting linguistic accessibility in the GLAM Sector



Mustafa Ciftcioglu
Developing early career teachers' data literacy pedagogies through an online community of practice



Nick Hood
Something understood: an audio pedagogy for complex concepts in initial teacher education



Kunqi Huang
Challenges in interdisciplinary education: A comparative case study across undergraduate grade levels in UK higher education



Joy Lan
Investigating the technology-supported personalised learning and teaching experience in inclusive education in the UK and Taiwan



Keqi Li
Multiple case study research on how teachers mediate the rollout of artificial intelligence in Chinese K–12 education



Fuji Lyu
Ethics education and the responsibility gap



Ruohan Ma
Multimodal feedback in higher education: Understanding the gap between pedagogical potential and practice



Meenakshi Mani
EdTech engineers and the making of machine learning in education



Sandra Nanyunja
Sustainable African futures

PHD RESEARCHERS



Nicolás Ruiz
Educational technologies for social innovation in Colombian rural schools



Isabella Sinn
A more-than-human inquiry into the spaces and practices of knowledge-making in higher education



Cam Starbuck
The Impact of Artificial Intelligence on Teacher Identity in Scotland



Nishat Tasmeen
From digital exclusion to digital inclusion: exploring the processes and impacts which make a difference for marginalised households



Siqi Wang
Ethical considerations for the use of artificial intelligence in education

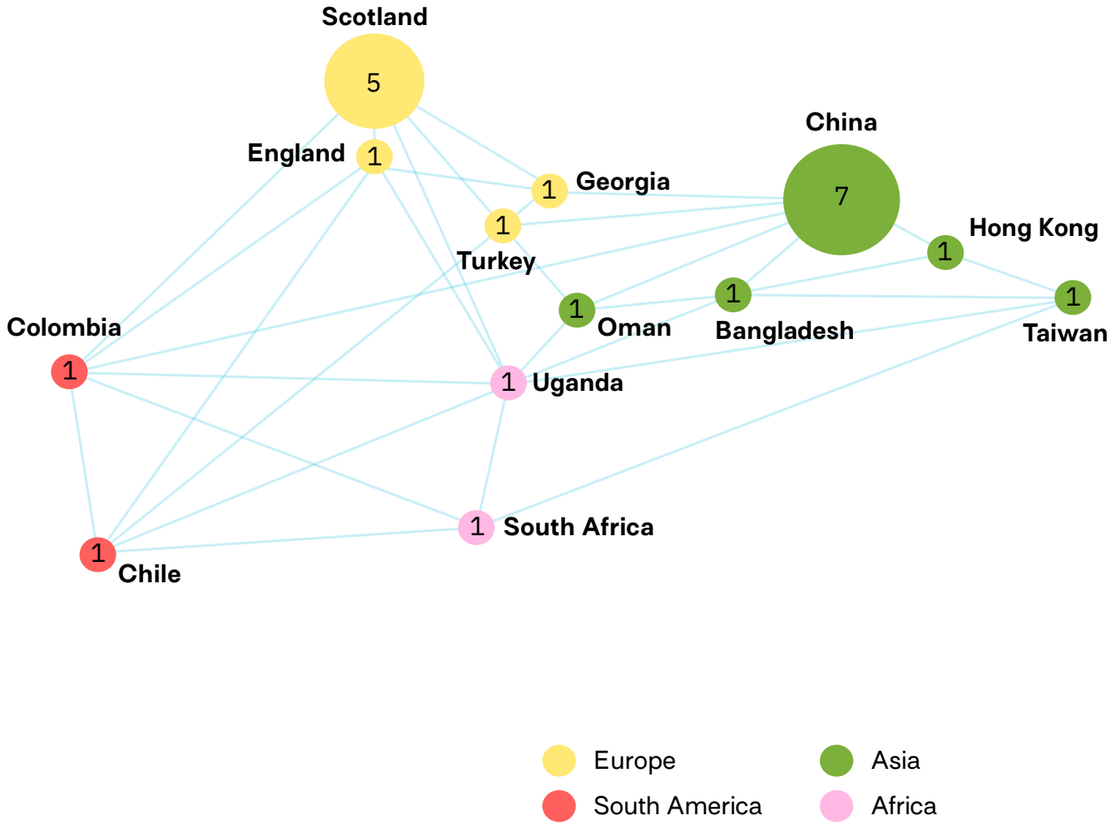


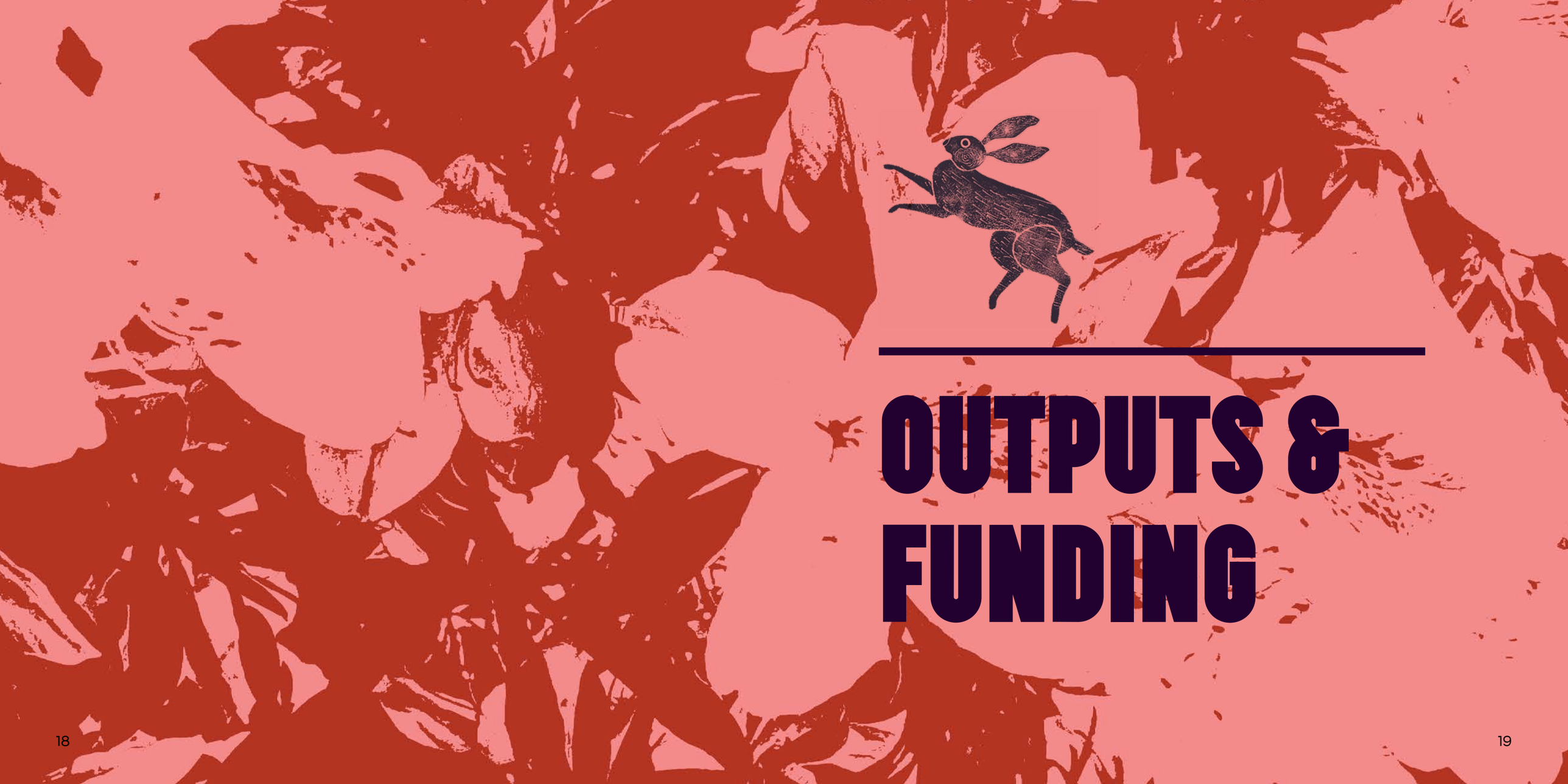
Josh Watters: Conflicting Cosmopolitanisms
Education between commodified aspiration and global Ideals



Chenxi Zhang
Sonification and visualisation of phylogenetic trees

PHD RESEARCHER GEOGRAPHICAL SPREAD





OUTPUTS & FUNDING

PUBLICATIONS

↑ More info

By keyword

Learning spaces / 15 | Teaching / 12 | Governance / 11 | Futures / 10 | Majority world / 10 | Datafication / 9 | AI / 9 | Children / 9 | Other / 14

By type

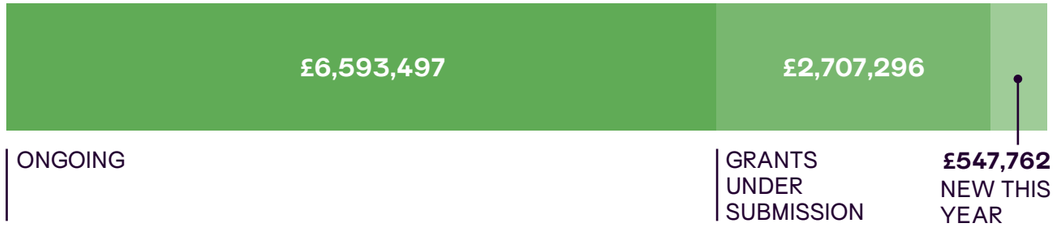
31	16	5	4	2	1
ARTICLE	CONFERENCE	CHAPTER	OTHER	BOOK	EDITORIAL

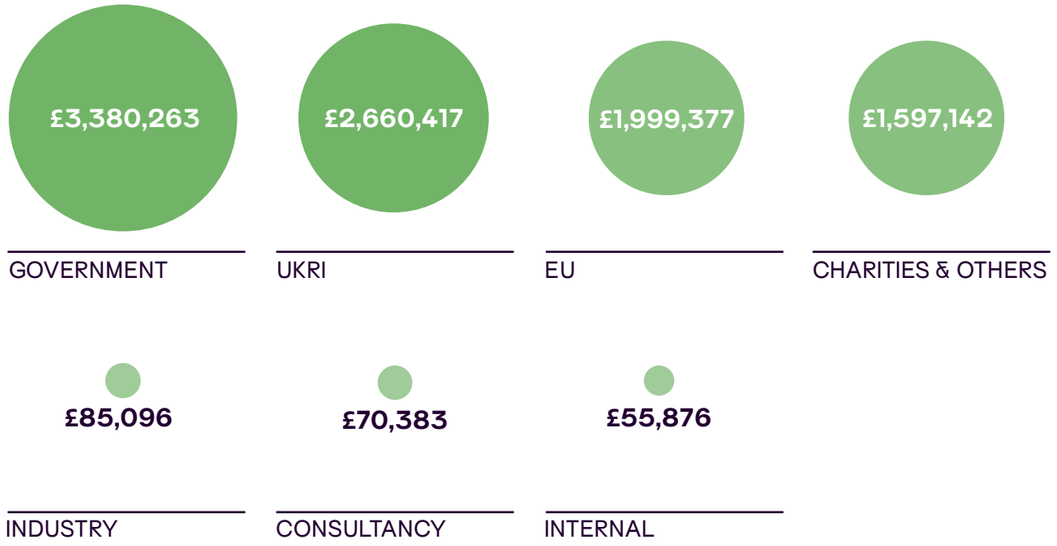
Journal articles published in:

Postdigital Science & Education 9 Learning Media & Technology 2 Globalisation, Societies and Education 2 Wellbeing, Space and Society 1 Science and Children 1 Policy Reviews in Higher Education 1 Oxford Review of Education 1 Journal of Physical Activity and Health International Journal of Science Education 1 International Journal of Educational Research 1 Higher Education 1 Futures 1 International Journal of Child-Computer Interaction 1 Discourse 1 AI and Society 1 Discourse 1 European Educational Research Journal 1 Critical Studies in Education 1 Australian Journal of Career Development 1 Arts and Humanities in Higher Education 1 International Journal of Child-Computer Interaction 1 Discourse & Society 1 ACM Journal on Computing and Sustainable Societies 1

FUNDING

TOTAL FUNDS: £7,141,259





THEMES

SHARING KNOWLEDGE GLOBALLY: AI AND EDUCATION POLICY

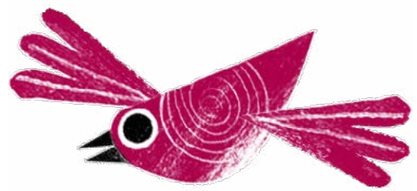
This year we delivered research-led training on AI policy development to colleagues from Europe, Middle East, Asia and the Pacific, in partnership with the NORRAG global education centre, KIX.

The training was aimed at mid- and senior-level professionals, supporting them to develop their thinking and then produce AI in education policy papers at the country level. Those taking part included academics, researchers and policy-makers, and it was fascinating to connect with course participants, and build our own understanding of the challenges AI poses to countries as diverse as Ukraine, Myanmar, Maldives and Mongolia.

Unsurprisingly, governance, infrastructure, teacher training and equity were particular challenges described by the country teams.

The work was led by Professor Jen Ross and Dr Michael Gallagher, with Prof Sian Bayne, Dr Pete Evans, Dr Janja Komljenovic, Dr Rovincer Najjuma, Prof Judy Robertson and Dr Ben Williamson all contributing to teaching and policy development support. The work will be continuing into 2027.

↑ More info



DIGITAL PRIORITARIANISM: A NEW PROJECT

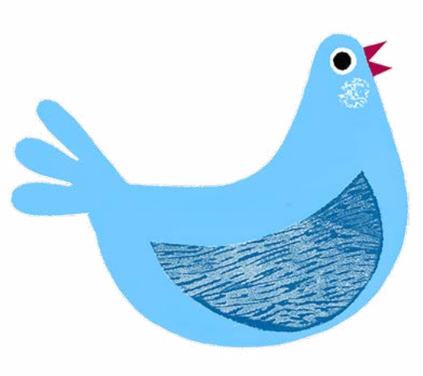


‘Prioritarianism’ proposes that equity initiatives are more valuable the worse off the person would otherwise be, emphasising giving priority to supporting those who most need support. It is the opposite of utilitarianism, which suggests that initiatives should pursue the greatest good for the greatest number of people. Most national systems of education and efforts at civic or digital inclusion are utilitarian in nature.

This new project, led by Dr Michael Gallagher with Dr Markus Breines as co-investigator, focuses on marginalised groups, exploring how digital initiatives designed according to the principles of prioritarianism are conceived, designed and executed, and how their outcomes compare with those more aligned to the principle of utilitarianism.

↑ More info

‘GROUND-UP’ AI: THE AI FOR TEACHING INNOVATION PROJECT



Our research and development project to build local, ‘micro’ AI applications to meet specific teaching needs has been funded for a third year. The project, led by Professor Sian Bayne and Javier Tejera, provides academic teams across the university with learning design and development support to build AI apps to support their teaching.

The project also builds institutional knowledge around responsible use of AI in education. It opens up new, creative possibilities for teaching, and has catalysed a cluster of sector-leading approaches to the responsible use of AI in education spanning medicine, law, chemistry, history, informatics, creative writing, business and education.

↑ More info

A NEW DIGITAL EDUCATION AND AI HUB FOR SCOTLAND



Our Data Education in Schools colleagues, led by Professor Judy Robertson, have been selected to lead the Scotland-wide Digital Education and AI Research Hub. Part of the Scottish Government-funded Centre for Teaching Excellence based at the University of Glasgow and led by Professor Judy Robertson and Dr Serdar Abaci, the hub will establish and support a thriving professional learning community for Scottish teachers interested in developing research-informed practice in digital, data and AI literacy.

↑ More info

NEW COLLABORATIONS: NORWAY'S CENTRE FOR RESEARCH EXCELLENCE



Colleagues from the Centre's Data Society theme have joined as academic partners with the AI Learn Research Centre, part of the newly-established Norwegian Centre for Research Excellence. Funded by Norway's Research Council for a total of 365 million Krone (£28 million) and collaborating with 34 partners from universities, industry and the public sector. The Centre will take an interdisciplinary approach to understanding the opportunities, challenges and risks associated with the use of AI in education.

As academic partners, Dr Janja Komljenovic and Dr Ben Williamson will be focusing on governance and ethics.

↑ More info

SELECTED PUBLICATIONS

A full list of our publications can be found at www.de.ed.ac.uk/publications

↑ More info

Andries, V., McKinley, C., Everson, H., Wilson, C., et al. (2026). Unpacking Children's Perceptions of Their Digital Money Futures. In *Proceedings of the Extended Abstracts of the 2026 CHI Conference on Human Factors in Computing Systems (CHI EA '26)* (Article 708, pp. 1–5). Association for Computing Machinery, New York, NY, USA.

www.doi.org/10.1145/3772363.3798669

Atabey, A., Ringmar Sylwander, K., & Livingstone, S. (2025). A child rights audit of GenAI in EdTech: learning from five UK case studies. *Technical Report*. Digital Futures for Children centre, 5Rights Foundation, London, UK.

www. researchonline.lse.ac.uk/id/eprint/129459

Bayne, S. (2026). Haraway's cyborg manifesto in education: after AI. *AI and Society*, 41, 5859–5870.

www. doi.org/10.1007/s00146-026-02972-4

Cha, J., Shephard, D., et al. (2026). Towards an asset-based approach in knowledge production? A systematic review and synthesis of refugee education literature. *Globalisation, Societies and Education*, 1–17.

www. doi.org/10.1080/14767724.2026.2659730

Davies, H. C. (2026). 'A great awakening of men of action': What does the 'right-wing Davos' represent? *Discourse & Society*, 37(3), 429–446.

www. doi.org/10.1177/09579265251368397

Hancock, S., Li, W., & Dias Lopes, A. (2026). PhD careers in and beyond academia: A comparison of evidence across developed and emerging economies. In *The Routledge International Handbook* of Learning and Instruction in University Education.

www. taylorfrancis.com/chapters/edit/10.4324/9781003540496-36/phd-careers-beyond-academia-sally-hancock-wei-li-alice-dias-lopes

Komljenovic, J., Williamson, B., Birch, K., et al. (2026). Assetizing academic content and the emergence of the 'assetizen': education platforms, publisher databases, and AI model training. *Higher Education*.

www. doi.org/10.1007/s10734-025-01622-w

Manches, A., Hancock, J., et al. (2026). The role of touch in children's engagement with nature: implications for design: Role of touch in learning. In *Proceedings of the 25th Annual ACM Interaction Design and Children Conference (IDC '26)* (pp. 68–82). Association for Computing Machinery, New York, NY, USA.

www. doi.org/10.1145/3773077.3806111

Najjuma, R., Ruiz, N., & Gallagher, M. (2026). Postdigital Science and Education and the Majority World: Advancing Pluriversal Perspectives in the Polycrisis. *Postdigital Science and Education*, 8, 739–753.

www. doi.org/10.1007/s42438-026-00691-z

Overend, D., Choi, S., et al. (2026). Toolkit for Interdisciplinary Learning and Teaching: TILT. Edinburgh: Edinburgh Diamond.

www. doi.org/10.2218/ED.9781836451631

Overend, D. (2026). Undisciplined Learning Spaces: An Environmental Model for Interdisciplinary Education. *Postdigital Science and Education.*

www.doi.org/10.1007/s42438-026-00645-5

Perera, D., Randika, A., et al. (2026). Supporting Engagement and Collaborative Exploration with Household Consumption Practices through a Data Sculpture. In *Proceedings of the 2026 Designing Interactive Systems Conference (DIS '26)* (pp. 4005–4018). Association for Computing Machinery, New York, NY, USA.

www.doi.org/10.1145/3800645.3813016

Robertson, J., Abaci, S., Linklater, H., Amirkhanashvili, G., & Lawson, T. (2026). Plants and Crocodiles: Learning about data literacy pedagogical practices from primary school teachers. *Science and Children*, 63(1), 26–33.

www.doi.org/10.1080/00368148.2025.2585565

Ross, J. (2026). Stories from the future of lifelong learning: fiction, technology and speculative pedagogies. *Learning, Media and Technology*, 51(3), 381–395.

www.doi.org/10.1080/17439884.2025.2591697

Tekle Yacob, E., Alemayehu, Y., Mersha, G., Demissie, E. A., & Gallagher, M. (2026). Education Obstructionism in the Postdigital Majority World: Social Media and the Devaluation of Schooling in Ethiopia. *Postdigital Science and Education*, 8, 801–820.

www.doi.org/10.1007/s42438-026-00675-z

Williamson, B., Pykett, J., & Kotouza, D. (2026). Polygenic scores as bio-social policy instruments: Educational genomics as a source of intervention and governance. *European Educational Research Journal.*

www.doi.org/10.1177/14749041261432392

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How technology, culture, learning and policy intersect within research and practice in digital education.

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