

Professor Rose Luckin

Academic Leader with a clear vision about the Future of Education

Internationally respected academic with a strong research track record

Influential communicator across multiple stakeholders internationally

Expert witness and advisor to policy makers, governments and industry about Education, Artificial Intelligence (AI) and the future of the workforce

Strategic thinker, innovator, entrepreneur, and influencer

Experience	<p>Professor, Professor Emeritus University College London 2006 – present</p> <p>Founder and CEO, Educate Ventures Research Limited (EVR) 2020 – EVR provides impact and AI training, certification, and consultancy services to the education sector.</p> <p>Member: Director’s Strategy Group at UCL Institute of Education 2011-2015</p> <p>Pro-Vice-Chancellor, Co-Founder and Director of the Human Centred Technology research group, University of Sussex 2003 – 2006</p> <p>Director of Undergraduate Studies for Science and Technology, University of Sussex 2002 – 2003, where I led a review of the Undergraduate Science Curriculum across the University</p> <p>Academic Faculty, University of Sussex 1998 – 2006; prior to this, PhD student and Research Fellow in the same Faculty (1995-1998)</p>
Current Additional Roles	<p>Advisor, Cambridge University Press and Assessment and Cambridge Partnership for Education</p> <p>Co-founder, Institute for Ethical AI in Education, launched in October 2018.</p> <p>President, The Self-Managed Learning Centre, Brighton</p>
Education	<p>First Class, Bachelor degree in Artificial Intelligence (AI) and Computer Science and PhD in Cognitive and Computing Sciences, both from University of Sussex, School of Cognitive and Computing Sciences.</p> <p>In my earlier career in banking and finance I achieved associateship of Chartered Institute of Bankers, finishing in the Top 20 candidates in the UK</p> <p><i>Academia is my second career. Prior to the birth of my children, I had a career in Banking and Finance.</i></p>

Selected awards	<p>ISTE Impact Award 2023: I am the first person outside North America to receive ISTE's top award.</p> <p>International Francqui Chair, 2018, Francqui Foundation, Belgium</p> <p>Seldon List 2017: 'Dr Who of AI', Top 20 most influential educationalists.</p> <p>EPSRC Advanced Personal Research Fellowship: 2007-12</p>
Recent expert evidence	<p>House of Commons Science and Technology Select Committee 2023 AI Governance inquiry.</p> <p>Public Consultation on AI - University of Copenhagen</p> <p>European Commission. High-Level Hearing: A European Union Strategy for Artificial Intelligence. Brussels, 2018</p> <p>Education Select Committee: The Fourth Industrial Revolution, 2018, I have also been appointed as the Specialist Advisor for this inquiry.</p> <p>House of Lords Select Committee on Artificial Intelligence, 2017</p> <p>House of Lords, Future of Work Commission, 2017</p> <p>House of Commons, Science and technology Select Committee: Robotics and artificial intelligence inquiry, 2016.</p>
Selected In - Person Keynotes	<p>I am regularly invited to give keynote and public lectures across the globe, both in-person and virtually. For example, during 2023, I have presented at SXSW conference - Always on: Learning in the Age of AI & Technology, Digital evolutions: The launch of the OECD 'Starting Strong VII: Empowering Young Children in the Digital Age' Report, Digital Universities UK 2023 (Leeds), The AI conference at Epsom College, CITERS 2023 – Hong Kong - Ethical AI in Education: The Reality Beyond the Guidelines, and Artificial Intelligence in Education, Sydney Australia</p>
Selected media	<p>I have authored a monthly column in the Times Educational Supplement and written for the Financial Times and China Daily. I am interviewed by members of the press regularly and have also appeared on radio television, for example: The Radio 4 Today program, local UK Radio stations along with Interviews for CNBC, ITV News, and BBC Click. Op-Eds Financial Times February 2020: <i>AI in Education will help us understand how we think</i>. Guardian July 2023: <i>Yes, AI could profoundly disrupt education. But maybe that's not a bad thing</i>.</p>
Public writing examples	<p>Intelligence Unleashed: An argument for AI in Education Pearson, 2016</p> <p>A.I. Is the New T.A. in the Classroom How we get to Next, 2017</p> <p>Solved! Making the case for collaborative problem-solving Nesta, 2017</p>

Academic Publications

Academic Monographs

- Luckin, R., George, K. and Cukurova, M (2022) *AI for School Teachers*, Routledge, London (now being translated into Mandarin for publication in China by Beijing Normal University).
- Luckin, R. (2018) *Machine Learning and Human Intelligence: the future of education for the 21st century*. IOE press, London (also published in Mandarin by Cheers Publishing Beijing).
- Luckin, R. (2010) *Re-designing Learning Contexts: Technology-Rich, Learner- Centred Ecologies*, Routledge, London.

Edited Books

- Luckin, R. (Ed) *Enhancing Learning and Teaching with Technology. What the research Says.* (2018) IOE press, London.
- Luckin, R., Puntambekar, S., Goodyear, P., Grabowski, B., Underwood, J., and Winters, N. Eds. (2013) *Handbook of Design in Educational Technology*. London, Routledge.

Selected recent peer reviewed publications

- Webb, C., Luckin, R., Ecoff, E. (2023). Ethical Principles for the Development and Application of Artificial Intelligence in K-12 Education. In: Lee, W.O., Brown, P., Goodwin, A.L., Green, A. (eds) *International Handbook on Education Development in Asia-Pacific*. Springer, Singapore. https://doi.org/10.1007/978-981-16-2327-1_120-1
https://link.springer.com/referenceworkentry/10.1007/978-981-16-2327-1_120-1
- Cukurova, M., Khan, M., Millan, E., & Luckin, R. (2022). A Learning Analytics Approach to Monitoring the Quality of Online One-to-one Tutoring. *Journal of Learning Analytics*. doi:10.18608/jla.2022.7411
- Chaudhry, M. A., Cukurova, M., & Luckin, R. (2022). A Transparency Index Framework for AI in Education. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 13356 LNCS, 195-198. Springer. doi:10.1007/978-3-031-11647-6_33
- Luckin, R., Cukurova, M., Kent, C., & du Boulay, B. (2022). Empowering educators to be AI-ready. *Computers and Education: Artificial Intelligence*, 3, 100076. doi:10.1016/j.caeai.2022.100076
- Weatherby, K., Clark-Wilson, A., Cukurova, M., & Luckin, R. (2022). The importance of boundary objects in industry-academia collaborations to support evidencing the efficacy of educational technology. *TechTrends*. doi:10.1007/s11528-022-00705-0
- Torres, P. E., Ulrich, P. I. N., Cucuiat, V., Cukurova, M., De la Presa, M. C. F., Luckin, R., Lawson, S. (2021). A systematic review of physical-digital play technology and developmentally relevant child behaviour. *International Journal of Child-Computer Interaction*, 100323. doi:10.1016/j.ijcci.2021.100323
- Kent, C., Chaudhry, M. A., Cukurova, M., Bashir, I., Pickard, H., Jenkins, C., . . . Luckin, R. (2021). Machine Learning Models and Their Development Process as Learning Affordances for Humans. *Lecture Notes in Computer Science*, vol 12748, 12748, 228-240. Springer. doi:10.1007/978-3-030-78292-4_19
- Hao, Y., Li, H., Ding, W., Wu, Z., Tang, J., Luckin, R., & Liu, Z. (2021). Multi-task Learning Based Online Dialogic Instruction Detection with Pre-trained Language Models. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 12749 LNAI, 183-189. doi:10.1007/978-3-030-78270-2_33
- Kent, C., Chaudhry, M. A., Cukurova, M., Bashir, I., Pickard, H., Jenkins, C., . . . Luckin, R. (2021). On how Unsupervised Machine Learning Can Shape Minds: a Brief Overview. *Companion Proceedings of 11th International Learning Analytics and Knowledge Conference (LAK'21)*. <https://www.solaresearch.org/wp->

- content/uploads/2021/04/LAK21_CompanionProceedings.pdf.
- Roll, I., McNamara, D., Sosnovsky, S., Luckin, R., & Dimitrova, V. (2021). Preface (Vol. 12748 LNAI). doi:10.1016/S0074-6142(08)60615-4
- Roll, I., McNamara, D., Sosnovsky, S., Luckin, R., & Dimitrova, V. (2021). Preface (Vol. 12749 LNAI).
- Clark-Wilson, A., Moeini, A., Anand, K., Blake, C., Cukurova, M., Garcia, S., . . . Weatherby, K. (2021). Supporting small and medium-sized enterprises in the educational technology sector to become more research-minded: Introduction to a small collection. *Research for All*, 5 (1), 5-15.
- Mathew, R. K., Mushtaq, F., Ahmed, S., Ahmed, K., Anderton, L. K., Arnab, S., . . . Young, W. R. (2021). Three principles for the progress of immersive technologies in healthcare training and education. *BMJ Simulation and Technology Enhanced Learning*, 7 (5), 459-460. doi:10.1136/bmjstel-2021-000881
- Luckin, R. (2021). What inspired my thinking to create UCL EDUCATE?. *Research for All*.
- Khan-Galaria, M., Cukurova, M., & Luckin, R. (2020). A Framework for Exploring the Impact of Tutor Practices on Learner Self-regulation in Online Environments. *AIED (2)*, 12164, 135-139. Springer.
- Carroll, J., Ross, H., Luckin, R., Blake, C., Kent, C., Clark-Wilson, A., . . . Butterworth, B. (2020). *Current Understanding, Support Systems, and Technology-led Interventions for Specific Learning Difficulties*. London, UK: Government Office for Science.
- Bittencourt, I. I., Muldner, K., Millán, E., Cukurova, M., & Luckin, R. (2020). Preface (Vol. 12164 LNAI).
- Bearman, M., & Luckin, R. (2020). Preparing University Assessment for a World with AI: Tasks for Human Intelligence. *Enabling Power of Assessment* (pp. 49-63). doi:10.1007/978-3-030-41956-1_5
- Liu, Z., Yang, S., Tang, J., Heffernan, N., & Luckin, R. (2020). Recent Advances in Multimodal Educational Data Mining in K-12 Education. *Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 3549-3550. doi:10.1145/3394486.3406471
- Luckin, R., & Cukurova, M. (2019). Designing educational technologies in the age of AI: A learning sciences driven approach. *British Journal of Educational Technology*, bjet.12861. doi:10.1111/bjet.12861
- Cukurova, M., Luckin, R., & Clark-Wilson, A. (2019). Creating the golden triangle of evidence-informed education technology with EDUCATE. *British Journal of Educational Technology*, 50 (2), 490-504. doi:10.1111/bjet.12727
- Cukurova, M., Kent, C., & Luckin, R. (2019). Artificial intelligence and multimodal data in the service of human decision-making: A case study in debate tutoring. *British Journal of Educational Technology*, 0, bjet.12829. doi:10.1111/bjet.12829
- Cukurova, M., Luckin, R., & Kent, C. (2019). Impact of an Artificial Intelligence research frame on the perceived credibility of educational research evidence. *International Journal of Artificial Intelligence in Education*. doi:10.1007/s40593-019-00188-w
- Shum, S. J. B., & Luckin, R. (2019). Learning analytics and AI: Politics, pedagogy, and practices. *British Journal of Educational Technology*. doi:10.1111/bjet.12880
- Cukurova, M., Kent, C., & Luckin, R. (2019). The Value of Multimodal Data in Classification of Social and Emotional Aspects of Tutoring. *Proceedings of the AIED: International Conference on Artificial Intelligence in Education*. Springer Nature. doi:10.1007/978-3-030-23207-8_9
- Ocuppaugh, J. L., Rodrigo, M. M. T., Porayska-Pomsta, K., Olatunji, I., & Luckin, R. (2018). Becoming Better versed: Towards the design of a popular music- based rhyming game for disadvantaged youths. *ICCE 2018 - 26th International Conference on Computers in Education, Main Conference Proceedings*, 663-668.
- Cukurova, M., Luckin, R., & Baines, E. (2018). The significance of context for the emergence and implementation of research evidence: the case of collaborative problem-solving. *Oxford Review of Education*, 44 (3), 322-337. doi:10.1080/03054985.2017.1389713
- Cukurova, M., Luckin, R., Clark-Wilson, A., Moore, G., Olatunji, T., & McDonald, M. (2018). EDUCATE: Creating the Golden Triangle for research-informed industrial collaborations

- within education technology. CEUR Workshop Proceedings, 2128.
- Luckin, R., Cukurova, M., & Millán, E. (2018). Student engagement with resources as observable signifiers of success in practice based learning. *Proceedings of International Conference of the Learning Sciences, ICLS, 3* (2018-June), 1549- 1550.
- Cukurova, M., Luckin, R., Millán, E., & Mavrikis, M. (2018). The NISPI framework: Analysing collaborative problem-solving from students' physical interactions. *Computers & Education, 116*, 93-109.
- Cukurova, M., & Luckin, R. (2018). Evaluating innovative collaborative learning practice: an 'innovative' delphi approach. *Proceedings of International Conference of the Learning Sciences, ICLS, 2* (2018-June), 681-688.
- Weatherby, K. E., & Luckin, R. (2018). Learning analytics, artificial intelligence, and the process of assessment. In R. Luckin (Ed.), *Enhancing learning and teaching with technology: What the research says*. UCL IOE Press.
- Luckin, R. (2018). *Machine Learning and Human Intelligence: The Future of Education for the 21st Century*. UCL Institute of Education Press (University College London Institute of Education Press).
- Cukurova, M., & Luckin, R. (2018). Measuring the Impact of Emerging Technologies in Education: A Pragmatic Approach. In J. Voogt, G. Knezek, R. Christensen, K. W. Lai (Eds.), *Second Handbook of Information Technology in Primary and Secondary Education*. Springer, Cham.
- Bringula, R., Rodrigo, M. M. T., Ocumpaugh, J. L., Porayska-Pomsta, K., Olatunji, I., & Luckin, R. (2018). Portraits of underprivileged Filipino second language learners: Towards the development of computer-based educational game. *ICCE 2018 - 26th International Conference on Computers in Education, Workshop Proceedings, 569-575*.
- Samani, T., Porayska-Pomsta, K., & Luckin, R. (2017). Bridging the Gap Between High and Low Performing Pupils Through Performance Learning Online Analysis and Curricula. Springer International Publishing. doi:10.1007/978-3-319-61425-0_82
- Cukurova, M., Luckin, R., Millán, E., Mavrikis, M., & Spikol, D. (2017). Diagnosing Collaboration in Practice-Based Learning: Equality and Intra-individual Variability of Physical Interactivity. *EC-TEL, 10474*, 30-42. Springer.
- Cukurova, M., Mavrikis, M., & Luckin, R. (2017). Evidence-Centered Design and Its Application to Collaborative Problem Solving in Practice-based Learning Environments. *Measurement in Digital Environments White Paper Series*. Menlo Park, CA: SRI International.
- Luckin, R., Mavrikis, M., Cukurova, M., Porayska-Pomsta, K., Holmes, W., Rienties, B., . . . Forcier, L. (2017). How Do We Unleash AIED at Scale to Benefit All Teachers and Learners. *ARTIFICIAL INTELLIGENCE IN EDUCATION, AIED 2017, 10331*, 665-667. SPRINGER INTERNATIONAL PUBLISHING AG.
- Cukurova, M., Mavrikis, M., Luckin, R., Clark, J., & Crawford, C. (2017). Interaction Analysis in Online Maths Human Tutoring: The Case of Third Space Learning. *AIED, 10331*, 636-643. Springer.
- Cukurova, M., Luckin, R., Mavrikis, M., & Millán, E. (2017). Machine and Human Observable Differences in Groups' Collaborative Problem-Solving Behaviours. *EC-TEL, 10474*, 17-29. Springer.
- Luckin, R., Baines, E., Cukurova, M., & Holmes, W. (2017). *Solved! Making the case for collaborative problem-solving*. London, UK.: Nesta.
- Luckin, R., Clark, W., Avramides, K., Hunter, J., & Oliver, M. (2017). Using teacher inquiry to support technology-enhanced formative assessment: a review of the literature to inform a new method. *Interactive Learning Environments, 25* (1), 85-97. doi:10.1080/10494820.2015.11211

Selected Grants Awarded and Managed

- 2017 – 2022 - Principal Investigator and Director, EDUCATE. European Regional Development Fund. 4.5 million GBP

- 2017 – 2020 Principal Investigator – Playing-Out with the IoT: An Internet of Things (IoT) toolkit and infrastructure to support the under 9s in creating outdoor play interactions and experiences. We will develop and test a conceptual framework which links child development, theories of play and narrative learning to specify new forms of IoT-based play. EPSRC£840,000
- 2017 – 2019 Principal Investigator – JOLLY: Jokes On-line to improve Literacy and Learning digital skills amongst Young people from disadvantaged backgrounds. Funded by an Institutional Links Grant from the Newton Fund initiative and is a collaboration between UCL Knowledge Lab and Ateneo de Manila University in the Philippines.£286,455. I switched to Co-investigator in 2018.
- 2016 -2017 Principal Investigator. Collaborative Problem Solving. Nesta 30K
- 2014 – 2017 Principal Investigator - PELARS. Practice-based Experiential Learning Analytics Research and Support. H2020 Total cost €3.8M (€3M EU contribution) To the IOE €614K
- 2010 – 2014 Principal Investigator - NEXT-TELL: Next Generation Teaching, Education and Learning for Life. EU 8.176.135 Euro (536.480 Euro awarded to the London Knowledge Lab)
- 2007 – 2012 Principal Investigator - SCAffolding Rich Learning Experiences through Technology: SCARLET. Advanced Fellowship. EPSRC EP/E051847/1. £758,092.
- 2010 – 2013 Principal Investigator - Taking on the Teenagers - Using Adolescent Energy to Reduce Energy Use. EPSRC EP/I000550/1. £1,238,643 (£233,282 awarded to the Knowledge Lab).
- 2008 – 2009 Principal Investigator - E-Goals: Exploring a goal-oriented approach to learner modelling and metacognitive software scaffolding. EPSRC EP/F018495/1 £53,346
- 2007 – 2009 Co-investigator -Towards making Grid-enabled schools e-Science usable and re-usable for and with teachers. ESRC. RES-149-25-1064 £107,666.70.
- 2006 – 2009 Principal Investigator - VESEL (Village e-Science for Life). EPSRC. EP/E007198/1 £450,000.
- Principal Investigator - Platform Grant to support the work of the Human Centred Technology group at Sussex. EPSRC. £395,653.
- Principal Investigator - Augmented Reality Trial ad JAM Augmented Reality Trial, BBC. £24,000.
- Principal Supervisor - PhD studentship for Madeline Alsmeyer EPSRC.
- Co-investigator - How Compelling is the Evidence for the Effectiveness of e-Learning in the Post-16 Sector? A Systematic Review. Eduserv. £121,574.
- Co-investigator - Drama and Performance for Pleasurable Personal Learning Environments, EPSRC. £38,565.
- Principal Investigator – HOMEWORK, a project to build an exemplar interactive TV application for Keystage 1 maths. EPSRC/ESRC/DTI PACCIT LINK programme. £700,000
- Co-investigator - Using Externalisation and Software Scaffolding in Multimedia Systems to develop Children’s Language Comprehension. EPSRC. £333,929
- Co-investigator - Advanced Grid Interfaces for Environmental e-science in the Lab and in the Field EPSRC. £ 42,608