

Primary Computing Conference Holiday Inn, Eastleigh – 30 June 2023

Conference Programme

08:30-09:00	Arrival and registration (<i>Tea and coffee available on arrival</i>)
09:00-09:10	Welcome, introductions and housekeeping – Sue Savory
09:10-10:00	Keynote – You Can't Spell Primary without AI Professor Les Carr , University of Southampton & Phil Bagge , HIAS Computing Inspector
10:00-10:45	Workshop 1 – Putting Principle into Practice: Computing in the Early Years Foundation Stage (EYFS) Emma Goto , Senior Lecturer in Primary Education – University of Winchester Rachael Coultart , Computing Subject Lead – St Nicholas Church of England Primary School and Nursery
10:45-11:00	Break (<i>tea and coffee available</i>)
11:00-11:45	Workshop 2 – Navigating the Diffusion of Innovation in Primary Computing Chris Ayling , Warren Park Primary School
11:45-12:30	Workshop 3 – KS2 Physical Computing with the BBC Microbit Matthew Wimpney Smith , Senior Lecturer in Initial Teacher Education and Computing at Oxford Brookes University Richard Berryman , Gurnard Primary School
12:30-13:15	Lunch
13:15-14:00	Workshop 4 An Introductory to CAD CAM with Cricut - Kirsty Garland , Computing & eSafety Lead, Alver Valley Schools 3D Printing - Chris Smith , Castle Hill Primary School
14:00-14:45	Workshop 5 – Integrating Technology into the Classroom: A Pedagogy-First Approach James Radburn , Computing and Digital Innovation Lead - The Rivers CofE Academy Trust
14:45-15:45	Keynote – Centering Context, Culture, and Connections for Concepts, Coding, Creativity, and Computational Thinking in Computing Classrooms Shuchi Grover
15:45	Close

Keynotes

Les Carr & Phil Bagge

Les Carr is a professor of web science at the University of Southampton who lectures in AI. He is also a stand-up comedian who took a show on AI to the Edinburgh fringe in 2022 with his daughter Ruby. Les enjoys teaching complicated concepts in simple terms. Join Les and Phil as they guide you through how AI will affect primary education in the future, what AI is excellent at, and whether we will all be replaced by AI-powered teaching robots.

Shuchi Grover

The learning sciences posit that the sociocultural context is key to the learning process. They also underscore the need for culturally relevant pedagogy in curriculum design and classroom practices—an approach that also addresses our renewed urgency to attend to equity and inclusion in computing. Dr. Grover will draw on her extensive background in the learning sciences and computing education research to articulate powerful ideas for creating rich and inclusive learning experiences in computing classrooms. She will share concrete examples from recent research that showcase these approaches with the goal of helping students develop conceptual and creative skills in coding and computational thinking.

Workshops

Workshop 1 – Putting Principle into Practice: Computing in the Early Years Foundation Stage (EYFS)

Emma Goto

Racheal Coultart

This session will explore the four EYFS overarching principles and how these link to computing in early childhood.

The Four Overarching Principles

- The enabling environment
- The unique child
- Positive relationships
- Learning and development

This session will be a mixture of theory and practical examples that will support the computing co-ordinator to understand what high quality teaching of computing looks like in the EYFS.

Workshop 2 – Navigating the Diffusion of Innovation in Primary Computing

Chris Ayling

I am thrilled to share the incredible journey I have experienced at Warren Park Primary School over the past 10 years, focusing on the diffusion of innovation in primary computing. Throughout this presentation, I will delve into the strategies I have employed to implement and integrate the computing curriculum. Additionally, I will address the inherent challenges and barriers that often arise when introducing technology into the classroom.

One of the key aspects I will explore is the concept of diffusion of innovation, and how it applies to the adoption and acceptance of technology in educational settings. Specifically, I will highlight effective approaches to leading your teams, catering to both early adopters and those who may be more resistant to change.

As well as sharing our long-term and short-term plans, I will also discuss the creation of learning journey maps and the impact of moderation, conferencing and additional training activities. Additionally, I will address the common barriers we may encounter and share some quick wins to overcome them effectively.

Workshop 3 – KS2 physical computing with the BBC Microbit

Matthew Wimpney Smith

Richard Berryman

This will be a hands-on workshop about getting started with using the BBC Microbit for physical computing in KS2 including the requirements of the Teach Computing Curriculum Year 6 programming unit.

Workshop 4

3D Printing - *Chris Smith*

Are you interested in learning how to use 3D printing in your primary school classroom? In this workshop, you will learn about the benefits of 3D printing, the technology behind it, tips and tricks for using it in the classroom, and how to integrate it across the curriculum.

An Introductory to CAD CAM with Cricut - *Kirsty Garland*

CAD CAM can seem an expensive and daunting option in Primary education. With Cricut, there are options to start branching out with your STEM and Computing curriculum.

Workshop 5 – Integrating Technology into the Classroom: A Pedagogy-First Approach

James Radburn

With the rapid pace of technological advancements, this session will explore how we can use technology to improve outcomes for all. Technology enables us to bring teaching pedagogies to the forefront by enhancing our explanations and models, to being responsive to pupils' learning as well as redefining how pupils work. This session will provide attendees with a comprehensive understanding and a range of strategies to maximize student learning in all classrooms, even for the most novice EdTech users.

Speaker Biographies

Shuchi Grover

Shuchi is a learning scientist and computer science (CS) and STEM education researcher. Her current research is primarily centered on Computational Thinking, CS education, and STEM learning in the PK-14 years— helping and empowering learners to build a strong foundation for STEM literacy. She focuses on the design of curriculum, assessments, tools, and environments that help develop 21st century competencies; as well as social, cultural, cognitive and socio-emotional processes that nurture such development. Shuchi has a Ph.D. in Learning Sciences & Technology Design from Stanford University, masters degrees in Education (Harvard University) and Computer Science, and bachelors degrees in Computer Science and Physics.



Les Carr



Les studies the impact of the web on society — the way in which the global communications infrastructure changes our personal, social and economic landscape. How does the Web threaten our privacy, the quality of our relationships, our intellectual property, our creative industries and even our high streets? At the same time, what new opportunities does it open up for new kinds of industries and new kinds of sociability?

With his colleagues and students in the Web Science Institute at the University of Southampton and with our partners from industry and government, he is trying to understand how to identify the future opportunities of the digital economy whilst trying to navigate its current challenges, to maximise the social and economic benefit that the online world offers.

Emma Goto

Emma Goto is a Senior Lecturer in Primary Education at the University of Winchester's Institute of Education. She spent over a decade working as a leading ICT teacher and Advanced Skills Teacher (AST) in primary schools in Hampshire before moving into higher education. Emma has a focus on supporting teachers to get children using technology effectively to enhance their learning. As a practising teacher, Emma predominantly taught in the Early Years Foundation Stage and Key Stage One. Emma teaches on the initial teacher education programmes at the university. The modules that Emma works on link to Educational Theory and Practice, Computing, Philosophy for Children, and Early Years Education. Emma is a Fellow of the Chartered College of Teaching and is on the committee of the Technology, Pedagogy and Education Association (TPEA).



Further information about Emma's work can be found [here](#)

Rachael Coultart



Rachael has been teaching over 30 years and still thinks it's the best job in the world. She has taught mainly in Early Years, but dabbles in KS1 and 2 teaching Computing and running a Code Club. She's a CAS Community Leader, writes material for Cambridge Assessment and delivers Computing courses for Barefoot and the National Centre for Computing Education.

She believes that the fact there is no longer a 'technology tick box' in our Early Learning Goals is irrelevant to our EYFS curriculum delivery. If we want our young learners to make sense of their technologically diverse world then we need to expose them to some fundamental Computing concepts and guide their exploration of a range of technology.

Chris Ayling



With a background in computer animation, I have had the opportunity to contribute to remarkable architectural visualisation projects, including the production of computer visualisations for the iconic London 2012 Olympic Stadium. To deepen my understanding of integrating CAD technology in design, I pursued a Master's degree in Creative Media Practice, where I studied innovation diffusion in the architectural industry. Subsequently, I established my own company specialising in computer visualisation, animation, graphic design, and web design.

Seeking a new path, I transitioned to primary school teaching and have dedicated the past 12 years to implementing and integrating the computing curriculum in the Primary setting. At Warren Park Primary School, my workplace for the past decade, I have introduced and embedded the computing curriculum using theory-based approaches such as the diffusion of innovation. This has involved engaging staff, students, parents and governors in the process.

Currently, I am pursuing an NPQ in Leading Teacher Development, with a particular focus on introducing and understanding the impact of Assistive Technology in education. Through this specialisation, I aim to explore the transformative potential of assistive technology in empowering learners with diverse needs and promoting inclusive educational practices.

Matt Wimpenny-Smith



Matt Wimpenny-Smith is a former Assistant Head and has taught computing for 20 years. He is now a Senior Lecturer in Initial Teacher Education and Computing at Oxford Brookes University as well as the Primary Schools Lead of the Bucks, Berks and Oxon Computing Hub. He is a Fellow of the Chartered College of Teaching, CAS Master Teacher and Community Leader, BCS Certified Computer Science Teacher and Raspberry Pi Certified Educator. He helped to produce content for Teach Computing Curriculum and has written articles for HelloWorld magazine in conjunction with Jane Waite.

Richard Berryman

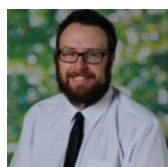
Richard is a Primary School Teacher, Computing Specialist and Digital Learning Lead from the Isle of Wight. He has 10 years' experience in the classroom, teaching and leading Computing to children across the Primary age range.



Richard has successfully transformed Computing in his school, developing the provision of learning, access to technology and profile of the subject, resulting in the achievement of the Computing Quality Mark.

Richard particularly enjoys using physical computing resources to support children's understanding of key concepts and to bring Computing to life in the classroom. As well as being an Associate Professional Development Leader for the NCCE, Richard also leads his local CAS Community, bringing together teachers to discuss and share best practice from across the local area.

Chris Smith



Chris introduced 3D printing to his school in 2018 and struggled to get it to work! Having persevered with the technology and upgraded their printer, they have now started to generate work across the curriculum.

Kirsty Garland

Kirsty Garland is Head of Computing Curriculum at The Federation of Alver Valley Schools in Gosport. With a background and degree in Jewellery Design and Silversmithing and a passion for STEM, Kirsty's long-term goals as an educator include use of and experience with machines in computing.

James Radburn

James Radburn is the Computing and Digital Innovation Lead at The Rivers CofE Academy Trust. He is also an assistant head at a local primary school in Worcestershire and the primary Lead for the West Midlands Computing Hub. He works with schools to coach and mentor staff and leaders to embed the effective use of Edtech. <https://twitter.com/@mrradburn>

