

Exploring how the fourth industrial revolution can support enterprise and entrepreneurship education for a smarter future.



Brought to you by BROOKES ENTERPRISE SUPPORT

In partnership with

ENTERPRISE EDUCATORS UK (EEUK)



WELCOME



"Many of the challenges facing society need to be addressed with creative, innovative and collective approaches, because we cannot hope to achieve impact alone. The Research and Innovation and Education & Enterprise

Pillars of our 2035 strategy give confidence that we are stimulating the impetus for all to harness new ways of working across disciplines, to fully embrace the value that an enterprising and entrepreneurial culture brings to staff, researchers, students and ultimately our community"

Professor Linda King

Pro Vice-Chancellor, Research and Global Partnerships



"Oxford Brookes is committed to developing the enterprising skills and entrepreneurial mind-sets of our staff and students through a range of projects and programmes. The Evolve Conference brings together

academics and enterprise practitioners, and provides an inclusive forum for debate and discussion. The international project showcases encourage participants to share insights and ideas, to shape the future of enterprise education at Brookes and beyond."

Professor Tim Vorley

Pro Vice-Chancellor and Dean of Oxford Brookes Business School, VCG lead for Entrepreneurship and Enterprise.

ENTERPRISE SUPPORT WORK AT OXFORD BROOKES UNIVERSITY

Oxford Brookes Enterprise Support is a cross cutting department that is involved and works with, all areas of the University. Our objectives are to support the development of entrepreneurial skills and mind sets across the Oxford Brookes University community through the delivery of a broad range of focussed activities, interventions, events and learning opportunities.

As a team, we seek to enable all of Oxford Brookes staff, students and recent graduates to achieve the realisation of their entrepreneurial self; not just within the confines of an academic environment but in their life beyond. To achieve this we have honed our programming into a flexible framework which allows individuals to curate their own pathway to finding out what this looks like for them.

From skills building to scaling up, our enterprise programme encourages the development of a unique and personalised tool box of life long enterprising methodologies. We want our community to be equipped with the necessary abilities and knowledge that help them operate with competency, self-assurance and maturity. This builds their confidence and belief in the value of their entrepreneurial endeavours, and have a clear understanding of the valuable impact and positive change these can bring on society.

PROGRAMME OVERVIEW

09:15	VIRTUAL COFFEE AND SET UP
09:30	CONFERENCE OPENING
09:35 - 10:15	KEYNOTE AND Q&A Prof Dr Fridolin Wild Institute of Educational Technology, The Open University, UK
10:15 - 10:20	VIRTUAL BREAK
10:20 - 11:20	PARALLEL SESSION 1A: INTERACTIVE WORKSHOPS LIVE Q&A WITH AUTHORS, PRESENTERS AND CONVENORS
	 Nigel Bassett Jones: Envisioning the fourth industrial revolution and how it will unfold
	2. Tim Elliott: The Responsibility of Business
	PARALLEL SESSION 1B: INTERACTIVE WORKSHOPS LIVE Q&A WITH AUTHORS, PRESENTERS AND CONVENORS
	 John Barker and Professor Yingli Wang: Innovating Supply Chain Disruption in the era of COVID-19 and the Ukrainian conflict – New technological approaches to innovation within supply chains
	Dr. Shelly Beck and Dr. Jeremy Zwiegelaar: Big Data in Business Ecosystems taking on an Ubuntu mindset
11:20 - 11:30	VIRTUAL BREAK
11:30 - 12:10	PANEL SESSION LIVE Q&A WITH PANELLISTS AND CONVENORS
	Artificial Intelligence Ethics for Entrepreneurs Panellists: Professor Nigel Crook, Arijit Mitra, Rebecca Raper and Nikita Lukianets.
12:10 - 13:00	VIRTUAL LUNCH BREAK
13:00 - 13:45	SESSION 2: IN CONVERSATION WITH LIVE Q&A WITH AUTHORS, PRESENTERS AND CONVENORS
	1. Victoria Milne: Creative thinking is essential to 4IR, but can it's effects be quantified through an RCT for business?
	Jennifer Manson: Communication for Entrepreneurs: How to explain technical ideas to a non-technical audience
	3. Mbakeh Camara and Lang Sanyang: Enterprise, Entrepreneurship and Digital challenges of Industry 4.0 in The Gambia



13:45 - 14:45	PARALLEL SESSION 3A: INTERACTIVE WORKSHOPS LIVE Q&A WITH AUTHORS, PRESENTERS AND CONVENORS 1. Lindsey Harrison and Dr. Laura Novo De Azevedo: BEE – Brookes Enterprise and Employability
	2. Dr. Paul Jackson, Professor Nicolette Michels, Dr Jonathan Louw, Dr. Andrea Macrae and Lucy Turner: Multi-disciplinary Experiential Learning to Support Enterprise and Employability: The Brookes Business Challenge Week
	PARALLEL SESSION 3B: GREATER GOOD PROJECTS SPOTLIGHT
	1. Arijit Mitra: Al Entrepreneurs Reshaping Healthcare
	Jack Adams: 3D Printed Dynamic Orthosis Prototype to Alleviate Drop Foot Condition
14:45 - 14:50	VIRTUAL BREAK
14:50 - 15:30	PARALLEL SESSION 4A: IGNITE LIVE Q&A WITH AUTHORS, PRESENTERS AND CONVENORS
	 Dr. Andrea Macrae, Dr. Mircea Scrob, and Helen Hook: Increasing engagement with enterprise and entrepreneurship education in the arts, humanities, and sciences preliminary insights from an EEUK Research Project Fund study
	PARALLEL SESSION 4B: IGNITE LIVE Q&A WITH AUTHORS, PRESENTERS AND CONVENORS
	 Robert Hickey and Shaun Ferns: EntreComp Ireland, an Open Educational Platform for Sharing Learning Resources, aligned to the fifteen competences from the EntreComp Framework (a work in progress)
	2. Julie Mcfarlane: The Impact of Coaching in HE Enterprise Education
15:30 - 15:40	ROUND UP OF THE DAY WITH DISCUSSION SESSION WHERE CONVENORS AND HOSTS COME TOGETHER IN A PANEL TO TAKE A SYNOPTIC VIEW OF THE DAY'S PROCEEDINGS
15:40	CONFERENCE CLOSE



KEYNOTE SPEAKER



Prof Dr Fridolin Wild

Institute of Educational Technology, The Open University, UK



Dr. Fridolin Wild is a Professor at the Institute of Educational Technology of The Open University, where he also leads the Performance Augmentation Lab (PAL).

Fridolin seeks to close the dissociative gap between abstract knowledge and its practical application, researching radically new forms of linking directly

from knowing something 'in principle' to applying that knowledge 'in practice' and speeding its refinement and integration into polished performance.

ABSTRACT

Bridging the Skills Gap for Industry 4.0 with Human Performance Augmentation Tools

Augmented Reality has its firm place among the key enabling technologies for cyber physical systems. Many want to deploy guidance and training systems in the overlay reality, where our physical surroundings are transformed into a canvas for digital augmentation, so we can embed knowledge directly right where the action happens, where performance is needed. It is easy. Is it?

Professor Dr. Fridolin Wild will provide insight into the research at the Performance Augmentation Lab, showing how 'Learning in the Real World' is feasible today using Open-Source technology to turn reality into a platform to meet post-pandemic, post-automation demands for task assists. He reports on findings that AR - when applied right - delivers a better experience with speed, at scale, and at lower cost. Fridolin will conclude the discussion on what we can do to prepare ourselves for the future and what this means for entrepreneurs.



Nigel Bassett Jones

Senior Lecturer, Oxford Brookes Business School



Nigel has worked in Higher Education since obtaining his MBA in 1992. Prior to this, he was self-employed where he ran a consulting company for several years, specialising in Organisational Development and Open Learning Services.

His working career kicked off as a film technician where he worked for the BBC as a film editor

before going to University. After completing his BA in Social Policy and Administration at Leeds and Aston Universities, he worked as a personnel and HR Manager before his final shift into education.

He has provided consulting services to both public and private sector organisations. His most recent client has been the International Criminal Court for the former Yugoslavia.

ABSTRACT

Envisioning the fourth industrial revolution and how it will unfold

The presentation will be divided into four parts. It will begin with an assessment of the long cycle theory. Second, an understanding of this theory will provide some insight into how the 4th industrial revolution will unfold. Next, the five major technologies that will shape the coming decades will then be discussed. To conclude, the implications for entrepreneurs and entrepreneurship will be addressed.



Tim Elliott

Design Strategist & Head of Spill Teem UK



Tim has been working as a professional marketer for over 23 years now and has a real passion for his chosen vocation.

Tim is one of thirty six thousand from across the globe who has been trained by Vice President AL Gore to help solve the global climate crisis. Tim has been part of several strategic conversations

with hundreds of organisations and leaders. This has contributed to overcoming the massive communication gap of climate and people change.

Over the years, he has had the opportunity to work with both agencies and clients, working with 1000's of businesses across various industries, helping their companies grow and differentiate themselves.

Tim has been a practitioner of the humans-centred design way of thinking and doing, driven to answer one question: 'How might we make the world a better place through human-centred design?'

ABSTRACT

The Responsibility of Business

As entrepreneurs, as founders and creatives, you have a responsibility not only to meet the needs of the people you choose to serve but also to build a brand that does good for people and the planet outside of the products and services you sell to make money. In this short round table, we will take a quick exploration of what it means to be responsible and how you can use this as a competitive advantage.

John Barker

Associate Director of Partnership Development at SimplyDo



John is an Innovation and enterprise specialist working in the public and private sectors. His current role within SimplyDo involves driving partnerships, research, and growth activities aligned with new business and product development

Co-author **Professor Yingli Wang**

Professor in Logistics and Operations Management



Professor Yingli Wang is a professor in logistics and operations management at Cardiff Business School, Cardiff University. She obtained her first degree in Food Manufacturing from China in 1995, an MBA in IT with Distinction in 2003 from Coventry University and a PhD in logistics and operations management from Cardiff University

in 2008. She specialises and researches in digital transformation and technological innovations in supply chains. Her research started with examining technological innovation for organisations such as logistics service providers and manufacturers, and then recently extended to explore how technological innovations could benefit a wider society, in particular by addressing the 'wicked' problems and grand challenges such as food poverty and health inequality. One of her research priorities is blockchain/distributed ledger technology and its integrative use with other digital technologies such as artificial intelligence, internet of things and cloud computing. She has published widely in both IS and OSCM journals, such as European Journal of Operational Research, International Journal of Production Economics, Production Planning and Control, Supply Chain Management: An International Journal, Industrial Marketing Management and Journal of the Association for Information Systems.





ABSTRACT

Innovating Supply Chain Disruption in the era of COVID-19 and the Ukrainian conflict – New technological approaches to innovation within supply chains

We've all witnessed the impact of the recent Ukrainian conflict, Suez Canal blockage, trade-wars between the US-China, Brexit, natural disasters, and the Covid-19 pandemic.

Those uncertainties and disruptions expose many hidden supply chain vulnerabilities. One of the major vulnerabilities in this ever-changing is the over-reliance on single suppliers for critical products and services. Another major vulnerability is the complexities arising from the lengthy global supply chains. These shifts drive global supply chains to more local and regional based networks influenced by policies like the

Well-being of the Future Generations Act (2015) in Wales. As a result, there is a great need for public and private sector organisations to build a diverse, localised, supplier base to be more resilient, responsive, and invested in the communities they serve, bringing new and exciting start-ups and micros into established supply chains.

Yet engaging with a large number of suppliers, especially SMEs, poses great challenges because how do you know who you can trust and how do you juggle the associated complexity? In this session, we will showcase how the integrative use of artificial intelligence and blockchain could be utilised to develop an effective, geographically-targeted, supplier discovery platform. This allows organisations to save on the time, cost and risk of geographically-targeted supplier engagement while protecting commercially sensitive information and intellectual property. It also allows more diverse start-ups and micros to be more visible within a competitive procurement process.

Learning Outcomes: Participants will learn about industrial digital technologies and their application within supply chain innovation. Participants will also gain insight into public sector procurement reform and innovation using these technologies.



Dr. Shelly Beck

Senior Lecturer in Business, Enterprise and Entrepreneurship



Dr. Shelly is a Senior Lecturer at Oxford Brookes University with a demonstrated history of working in the higher education industry. Dr Shelly is skilled in Microsoft Excel, Customer Service, Microsoft Word, Data Analysis and lecturing. She has a doctorate in business management, focused on family businesses from Nelson Mandela University.

Co-author **Dr. Jeremy Zwiegelaar**

Senior Lecturer in Enterprise and Business



Dr. Jeremy Zwiegelaar is a Senior lecturer in Enterprise and Business at Oxford Brookes University. He is researching in the area of nascent entrepreneurship with a focus on new venture performance. His work has appeared in Journal of Small Business Management, R and D Management, Strategic Change amongst others.

Dr. Zwiegelaar held academic positions in New Zealand and in UK universities. Dr. Zwiegelaar has a PhD in Management (Massey University NZ), MA Hons 1st class Psychology (University of Auckland, NZ) and a Graduate Diploma in Teaching (University of Auckland, NZ).



ABSTRACT

Big Data in Business Ecosystems taking on an Ubuntu mindset

Data and databases are important resources for organisations, they are of utmost importance for informed decision making. The combined use of data coming from various sources (internal and external) that cover different aspects of consumers' lives is a reality now through digital networks offering big opportunities for improved business competitiveness. Big data insights are guarded by organisations to ensure their competitive position in the market. Therefore we will seek to answer the research question: Can the use of big data take on Ubuntu philosophy in the creation of business intelligence/ applied knowledge? To answer this question, we take an ecosystem approach and from this perspective we developed a conceptual framework interlinking big data thinking with the layers of the ecosystem from the Ubuntu theory (individual, community and wider society). From these theoretical insights, we develop practical implications, which centre on the vision and purpose, performance and collective practices.

PANEL SESSION

Professor Nigel Crook

Associate Dean of Research and Knowledge Exchange



Nigel Crook leads and manages the implementation of the University Research and Knowledge Exchange strategy throughout the Faculty of Technology, Design and Environment Oxford Brookes University. He develops and implements research and knowledge exchange initiatives, policies and systems which are

designed to increase research capacity, the percentage of research judged externally as 'world leading', the interactions of research and knowledge exchange activities, and the exploitation and dissemination of our research for the benefits for our communities.

Arijit Mitra

CEO Alturis.Al



Arijit is an experienced technologist working in fields applying data, artificial intelligence, time series and natural language processing to knowledge management since the late 90's. His company, Alturis.Al, is a UK based Health Tech company, offering software products to primary and secondary healthcare care organisations for

clinical and patient data administration. He was the former Head of Innovation at the Institute for Ethical A.I.





Rebecca Raper

Research Associate at The University of Vienna



Rebecca Raper is a research associate at
The University of Vienna, and is a current PhD
candidate at Oxford Brookes University. Her
research spans across Ethical AI, Cognitive
Robotics and Machine Ethics broadly. She is
responsible for developing a practical approach to
embed ethics in the software development lifecycle

alongside the AI start-up Gradient Zero and The University of Vienna. She has extensive practical experience from industry and from working with business partners in academia. She is a forthcoming speaker at TEDxBanbury.

Nikita Lukianets

Founder, Open Ethics



Nikita helps organisations to innovate with design and technology. Specifically, he works in R&D with interests ultimately related to the fields of Al and cognitive computing.

He studied Applied Physics at Kyiv Polytechnic Institute and holds an MBA in Design and Innovation management awarded by Politecnico di

Milano School of Management.

ABSTRACT

Artificial Intelligence Ethics for Entrepreneurs

As artificial intelligence technologies flood the market across all industries, we discuss in this panel session the importance of ethical AI in business.



Victoria Milne



Chief and Director of Tenshi Consulting

Victoria is an ISO technical expert for innovation, and BSI design management expert committee member and expert coach for Ideact Design Thinking.

She is an innovation consultant with over 20 years' experience, Agile Certified and a qualified, award winning industrial designer with a wide range of skill and expertise in innovation, branding and strategy. She has worked internationally for Unilever, Saatchi & Saatchi and the Brand Union, amongst others, and has worked across a host of sectors from ICT, infrastructure, higher education, finance, retail, FMCG, luxury to pharmaceutical, motoring, and everything in between.

ABSTRACT

Creative thinking is essential to 4IR, but can its Bio effects be quantified through an RCT for business?

The audience will gain insight into quantifying the value of creative skills development and uptake for enterprise education and entrepreneurship in order to sufficiently prepare businesses for the 4IR.

During the pandemic we conducted a PoC, with Imperial College London's Dyson School of Design Engineering, funded by BEIS. We tested whether we could quantify the effects of Design Thinking as a skill for business.

Lessons learnt and key findings of the 'Design Thinking Training for SMEs', will help to build up the evidence base around what does and doesn't work in encouraging SMEs to adopt innovative technologies and management practices for improved productivity.

We wished to achieve the desired outcome regarding addressing the failure to 'take up' new processes and technologies by SMEs, due to their inability to recognise opportunity for innovation and the lack of skill to develop successful solutions. Our project worked to address and overcome these and move participants from low levels of Awareness of Design Thinking through to Confirmation and Advocacy.

Nesta's report on the findings recommended that the PoC be allowed to progress to a full Randomised Control Trial. It would be the first time experimental research of Maryland Scientific Methods Scale 5, would be conducted to quantify the effects of creative skills uptake on productivity and growth in business.



Jennifer Manson

CEO at Podium



Jennifer Manson is a serial entrepreneur and author with 18 years' experience creating innovative businesses in a range of industries. Her early career was in technical software design and development. She is a skilled communicator, and was frequently called on to bridge the gap between the developers and subject area experts, acquiring

specialist experience along the way. More recently she has worked in business leadership roles, assisting technological innovators to bring their ideas to market.

ABSTRACT

Communication for Entrepreneurs: How to explain technical ideas to a non-technical audience

An essential part of being an entrepreneur is communicating key aspects of your business to a range of audiences, including employees, customers, suppliers, and possibly investors or funding agencies. If your business has innovative technology at its core, this means breaking down those concepts so they can be readily understood by people who do not share your specialist knowledge; but even if your business is more mainstream, effective communication is what brings the team together and connects you with your market.

In this conversation we will discuss:

- Understanding the needs of each audience what do they need to know and why?
- Understanding what the business needs from each stakeholder
 what is your Call to Action?
- Building up the narrative practising on your friends
- Using analogy as a bridge to understanding
- How technology feeds into values "why" is as important as "what" and "how"

Mbakeh Camara

Head of University Relations and Innovation at University of the Gambia



Mbakeh is experienced in regulatory and statutory compliance as well as the set up of a social enterprise and charity (not-for-profit). He holds great enthusiasm for the principles of good corporate governance and corporate social responsibility (CSR) from shareholder and stakeholder perspectives.

Co-presenter Lang Sanyang

Small Business and Entrepreneurship Development Specialist



Lang has served as acting Director of UTG, Research and Consulting and is currently the leading a feasibility study and a business case for the establishment of an Innovation Tech Hub at the University of The Gambia (UTG) and establishment of five Regional Information and Innovation Hubs (RIIH) across the country commissioned by the

Ministry of Information and Communication Infrastructure. Lang is also the Chairman responsible for establishing a Centre of Excellence for Entrepreneurship at the School of Business and Public Administration, UTG. Lang has also served as a consultant in training and coaching of three successive cohorts of incubatees at the Start-up Incubator-The Gambia. Lang is currently a Ph.D. candidate in Human Resource Management.





Co-presenter Malik Khan

Founder and CEO of Pointclick Technologies and Disruptive lab



Malik has driven the social impact agenda for PointClick and Founded The Disruptive Lab., the Gambia's first Innovation Center, Tech hub, and co-working space; with a goal to boost human capital, digital literacy, and successful entrepreneurial programs. The tech hub focuses on digital inclusivity, transformation, and education. Additionally, The Disruptive Lab's sister hub; The Woman Boss, provides women entrepreneurs with

an inspiring community and an experiential process that catalyses innovative thinking and enables them to successfully scale their businesses.

Malik has received numerous tech accolades and has been featured in several technology focused publications. He is also a serial entrepreneur and acts as an Angel Investor in tech companies

ABSTRACT

Enterprise, Entrepreneurship and Digital challenges of Industry 4.0 in Gambia

The Gambian landscape for empolyment is changing with more Gambians now looking at self-employment as a viable option with the development of micro, small and medium sized enterprises (MSMEs). With the right support and infrastructure, these MSMEs can play a vital role in the economic development of the country.

In order to provide a sustainable enterprise ecosystem, and the development of entrepreneurial mindset and skills, the education establishments (including universities) can play an important role formally and informally. University of the Gambia shares this vision and is working towards embedding Enterprise and Entrepreneurial Education across all disciplines within the formal university education.

- In this conversation we will discuss:
- The status of Entrepreneurship in the Gambia
- Enhancing and embedding of Enterprise Education in the Gambia
- Foreseen challenges for the Gambia in relation to the 4th IR
- The role of the university to address foreseen challenges aligned with SDG.





Ms Lindsey Harrison

Principal Lecturer for Student Experience



Lindsey is a Solicior and Senior Lecturer in Construction Law, teaching law to both Construction and Real Estate students. After qualifying as a solicitor, she worked for major firms in both London and Oxford, specialising in property law. She left practice to become a founding member of the Oxford Institute of Legal

Practice. She worked as a solicitor advocate for a large national charity, after which she qualified as a Construction Adjudicator with the CIARB and consequently brings construction dispute resolution as an area of expertise to the School. Lindsey keeps up to date with current surveying practice in her role as a co-director of and legal consultant to a local surveying practice.

Co-author Dr. Laura Novo De Azevedo

Principal Lecturer for Student Experience



Laura is a Senior Lecturer in Planning and Urban Design, Subject Coordinator BA in Urban Design, Planning and Development, BA in City and Regional Planning and MPlan

Dr. Laura has a background in architecture, planning and urban design and has been a member of staff at Oxford Brookes University

since 2002 where she divides her time between coordinating three undergraduate courses in urban design and planning, teaching in Urban.



ABSTRACT

BEE – Brookes Enterprise and Employability

BEE - Brookes Enterprise and Employability tool has been developed by the Faculty of Technology, Design and Environment, Principal Lecturers for Student Experience Team to encourage students to engage with all the enterprise and employability opportunities available to them during their degree programme. Our experience is that students are often unaware that they have acquired these skills and so do not draw on them as fully as they could in future employment/ enterprise opportunities. The idea for this arose from a need to highlight to students when such opportunities occur and to make the most of them. Staff also need to see quickly what is on offer and what might be missing over the course of a programme. The idea is that the information should be presented as an infographic for greater impact and ease of use by the students. It is also designed to allow staff to edit it as simply as possible, requiring no greater skills than those needed for teaching, and so enable it to be used widely across a range of programmes. Our impact research is ongoing, but we would welcome the opportunity to show how the BEE infographic can help students in the very early stages of their journey towards future careers.

Dr. Paul Jackson

Senior Lecturer in Information Management & Al Consultant



Paul is an academic, trainer and management adviser, with particular expertise in digital business, systems analysis and technological change. He has worked with SMEs and the public sector. Paul recently worked as a growth coach under the Business Accelerator programme. He spent 9 years with the commercial arm of CIPFA, running

projects and advisory services, supporting public sector improvement and e-Government. His previous twenty-year career was in academic research and teaching, specialising in IT-enabled innovation. Paul is an accredited Project and Programme Manager.

Co-author Professor Nicolette Michels

Professor of Applied Enterprise and Associate Dean for Undergraduate and Postgraduate Programmes



Nicolette consults and researches in the area of entrepreneurial management, enterprise education and knowledge transfer between higher education and industry. Nicolette has secured, worked on and supported a number of government-sponsored Knowledge Transfer Partnerships between Oxford Brookes University and regional fast-growing

SMEs, as well as funded projects such as the NESTA 'Enterprising Colleges' Programme. Nicolette has also supported Oxford Brookes University Business School on an on-going internal consultancy basis, in a strategic and operational approach to developing stronger industry links, and a more flexible offer to the business and executive market. All of these themes form the basis of Nicolette's doctorate which looked into practice and policy of university-industry knowledge transfer.





Co-author Dr. Jonathan Louw

Principal Lecturer (Teaching, Learning and Student Experience) at Oxford Brookes University and Chair, PRME Chapter UK and Ireland



Jonathan is a Principal Lecturer at Oxford Brookes Business School. He is also the school lead in relation to the United National Principles for Responsible Management Education Initiative. His undergraduate teaching is focused on sustainability and employability. His Postgraduate teaching is centred on the CIPD accredited Masters in HRM

programmes. Jonathan is also the Liaison Manager for the Dual Degree offered with the University of Applied Sciences, Regensburg, Germany and he is the mentor on the HEA professional Standards Framework pathway run by Oxford Centre for Staff and Learning Development.

Co-author **Dr. Jeremy Zwiegelaar**

Senior lecturer in Enterprise and Business



Jeremy is researching in the area of nascent entrepreneurship with a focus on new venture performance. His work has appeared in Journal of Small Business Management, R and D Management, Strategic Change amongst others. Dr. Zwiegelaar held academic positions in New Zealand and in UK universities. Dr. Zwiegelaar

has a PhD in Management (Massey University NZ), MA Hons 1st class Psychology (University of Auckland, NZ) and a Graduate Diploma in Teaching (University of Auckland, NZ).



Co-author Dr. Andrea Macrae

Principal Lecturer in Student Experience and Stylistics



Andrea is a Principal Lecturer in Student Experience and Stylistics, and is the Employability and Enterprise Education Lead for the Faculty of Humanities and Social Sciences at Oxford Brookes University. She is a co-author of Employability: A Review of the Literature, 2016-2021 (Advance HE, 2021). Within the School of English and Modern

Languages, Dr. Macrae teaches, researches and publishes in the areas of stylistics, narratology, and cognitive poetics, and has most recently been developing modules which bring together literature and sustainability, and English studies and entrepreneurship. She is currently writing a monograph on the language of charity fundraising communications, with a focus on attention, absorption, empathy and authenticity.

Co-author Lucy Turner

Enterprise and Employability Lead in the School of Art and Head of Quality Assurance and Validations



Lucy is the Enterprise and Employability Lead in the School of Art and Head of Quality Validation within the Faculty of Technology Design and Environment. This role involves working with academic teams as well as colleagues from the central Quality Office to ensure all existing and new programs within the faculty meet the academic standards expected

within Higher Education Institutions. The breadth of subjects across the faculty means that having oversight of subjects from Motorsport to Fine Art to Real Estate can be really fascinating as they are all so vastly different. The student experience is at the forefront of the role ensuring that the students' expectations are met through dynamic and motivating learning environments which are monitored by strong and purposeful assurance processes. In addition, Lucy is also a lecturer within the School of Arts with a specialism in Fashion Textiles, working within the foundation art and design programme. Lucy is able to inject her enthusiasm for her subject into all aspects of her role and be creative with the way that her colleagues approach new developments in the HE sector.



ABSTRACT

Multi-disciplinary Experiential Learning to Support Enterprise and Employability: The Brookes Business Challenge Week

The workshop will evaluate the Brookes Business Challenge Week, a cross-disciplinary, hackathon-type initiative in experiential learning intended to enhance student employability and enterprise. The first week took place in June 2021, aimed at Level 7 students, with the second planned for July this year.

The Challenge Weeks demonstrate how a set of real world 'business' challenges can give students experience of cross-disciplinary 'wicked' problems while also providing value to partner organisations. The initiative develops important skills and attributes for futures in the unpredictable environment of the fourth industrial revolution, and furthers the University enterprise agenda. Arguably, because work was done extra-curricular and in teams of students and colleagues from across programmes and faculties, it provided the important type of context and multi-disciplinary perspectives on and approaches to problem-solving which best prepare students for wicked problems of the new age.

The workshop will involve a 10-minute presentation followed by up to 5 breakout sessions (10 minutes) to discuss if and how the Challenge Week concept could be applied to support enterprise education beyond extracurricular learning on Level 7 programmes.

This will build on the benefits reported by both students and external partners, and the lessons learned in organising, promoting and running the week. Themes for discussion include:

- Cross-faculty collaboration in enterprise education
- Managing the motivations of students and partnerships
- Managing contrasts between students in terms of commitment and professionalism
- Dealing with the need to recruit both students and external partners
- Working with academic mentors to help troubleshoot and ensure delivery of teams

Dr. Andrea Macrae

Principal Lecturer in Student Experience and Stylistics



Andrea is a Principal Lecturer in Student Experience and Stylistics, and is the Employability and Enterprise Education Lead for the Faculty of Humanities and Social Sciences at Oxford Brookes University. She is a co-author of Employability: A Review of the Literature, 2016-2021 (Advance HE, 2021). Within the School of English and

Modern Languages, Dr. Macrae teaches, researches and publishes in the areas of stylistics, narratology, and cognitive poetics, and has most recently been developing modules which bring together literature and sustainability, and English studies and entrepreneurship. She is currently writing a monograph on the language of charity fundraising communications, with a focus on attention, absorption, empathy and authenticity.

Co-author Dr. Mircea Scrob

Lecturer, Liberal Arts and Natural Sciences (LANS)



Dr. Mircea joined the LANS team, University of Birmingham, in September 2017 to contribute to the modules: Learning Entrepreneurial Skills and Entrepreneurial Start-up. His research and teaching interests are in the areas of Food Studies, Mixed Research Methods, Economic History of Modern Easter Europe, and History of Nutritional Science in the 20th Century





Co-author Helen Hook

Enterprise Educator and Chair AGCAS Enterprise & Entrepreneurship



Helen has 19 years experience in Higher Education supporting student employability, enterprise activity and developing a range of innovative tools such as mobile applications and virtual learning environments to enhance the student experience. More recently, Helen is now solely focussing on embedding enterprise skills into the undergraduate

curriculum at the University of Birmingham, working in partnership with academics and external stakeholders to develop teaching pedagogies to support enterprising behaviours, attributes and skills development for our students. She is interested in connecting with like minded professionals to strengthen networks, collaborate and share best practice.

ABSTRACT

Increasing engagement with enterprise and entrepreneurship education in the arts, humanities, and sciences preliminary insights from an EEUK Research Project Fund study

This session presents selected findings from a collaborative research project which explored staff and student understanding of and attitudes towards enterprise and entrepreneurship education; barriers to engagement with enterprise and entrepreneurship education; and the relative appeal of different options for and representations of enterprise and entrepreneurship education opportunities. Qualitative and quantitative data were solicited through focus groups with academic staff, and student surveys and focus groups, conducted at the University of Birmingham and at Oxford Brookes University.



Robert Hickey

Associate Researcher and Lecturer



Robert is a lecturer at the School of Informatics & Engineering at the Technological University of Dublin and joined in 2002. He is an associate Researcher in the Educational Informatics Lab (EILAB) at OntarioTechU, Canada. Robert is also a corporate member of the Institute of Clerk of Works & Construction Inspectorate and Licentiate

of City & Guilds of London Institute (construction). He is interested in active learning, Ed-tech, entrepreneurship and keeping the student at the center of everything.

Co-author **Shaun Ferns**

Education Model Project Team Leader and Deputy President University Registrar



Shaun is a senior lecturer, School of Informatics & Engineering at the Technological University of Dublin since 2002. He is an associate Researcher in the Educational Informatics Lab (EILAB) at OntarioTechU, Canada. Shaun is exploring serious games for construction-related training as well as the opportunities transmedia provides in improving

user experience and engagement in cultural archive artefacts. He is currently developing TU Dublin's Education Model, prior to this role, he was teaching on the BA (Hons) in Creative Digital Media where he was lead in the delivery of the Multimedia Stream. He previously played an active role in teaching, research, academic assessment, course development, and academic direction of several courses including BS(Hons) in Energy Systems and Industrial Automation & BS in Sustainable Electrical and Control Technology.





ABSTRACT

EntreComp Ireland, an Open Educational Platform for Sharing Learning Resources, aligned to the fifteen competences from the EntreComp Framework (a work in progress)

Ireland has recently committed to developing a strategic approach to entrepreneurship education (HEA, 2020). This paper describes a project launched in September 2021. EntreComp OERs for Entrepreneurship (2021) focuses on developing Open Educational Resources (OERs) to support learners exploring the EntreComp Framework (Bacigalupo, et al, 2016). The project committed to and delivered a series of high quality (Hylén, 2021) OERs, including an interactive lesson and related entrepreneurial activities for one of the EntreComp competencies, "Planning and Management". Additionally, an OER platform, a WordPress based website, has been developed to host these resources.

While the interactive lesson introduced the competence, a series of activities were developed that supported the learner through four levels of the EntreComp Framework, foundation, intermediate, advanced, and expert. Each activity has been developed with a focus on authentic undertakings at each level.

These activities are designed with an estimated commitment of 20-25 hours of work to achieve the desired skill level, through both individual and team-based activities. Initial positive evaluations through testing with 20 undergraduate learners have identified several recommendations to both the interactive lesson and series of activities. This paper considers the lessons learned in developing these initial resources and the benefits of developing them in conjunction within an existing framework (Kortemeyer, 2013). It concludes by sharing plans for further developing the Open Educational Resources for the remaining 14 EntreComp competences. This session will present a unique perspective on the use of the EntreComp Framework for upskilling learners from any discipline in the competences required to be a successful entrepreneur.



Jack Adams

Undergraduate Engineering Student



Jack is BEng Mechanical Engineering Student in the School of Engineering, Computing and Mathematics at Oxford Brookes University.

Jack has been awarded the best enterprise project for 2022 by Brookes Enterprise Support

ABSTRACT

3D Printed Dynamic Orthosis Prototype to Alleviate Drop Foot Condition

Drop foot, a condition that can hinder normal walking patterns, affects a relatively large proportion of the population. After discussions with a drop foot sufferer and orthotist, traditional methods have stagnated with little innovation. This project aims to design, prototype and test a 3D printed novel orthosis to alleviate the condition and allow patients to regain full mobility.



Arijit Mitra

CFO Alturis Al



Arijit is an experienced technologist working in fields applying data, artificial intelligence, time series and natural language processing to knowledge management since the late 90's. His company, Alturis.Al, is a UK based Health Tech company, offering software products to primary and secondary healthcare care organisations for

clinical and patient data administration. He was the former Head of Innovation at the Institute for Ethical A.I.

ABSTRACT

A.I Entrepreneurs Reshaping Healthcare

The last decade has seen exponential growth in cloud computing, big data and analytics products and services.

We have seen the adoption of Artificial intelligence in our everyday lives. A.I permeates in the products and services we use. From what we watch, what we eat, and how we travel.

So it shouldn't surprise us that A.I has a place in our healthcare and has the potential to dramatically impact how we discover new drugs, administrate and deliver our heath-care.

This talk describes the areas in which A.I can be applied to healthcare. The role of the start-up and the healthcare data challenge offered by the NHS today and the potential benefits to the patient if these challenges were addressed.

It describes a case study from an A.I health care company founded by Catalyst award recipients. Finally, how educators could prepare their students to contribute to this revolution.

Dr. Julie McFarlane

Enterprise Education Specialist, Founder at the Academy Of Enterprise Education



For the last 17 years Dr. Julie McFarlane has been developing higher education programs for students across the world. Most recently, she was Director of Learning at the Hunter Centre for Entrepreneurship (HCE) at Strathclyde University, UK. Prior to this, Julie was the postgraduate Director for the Leadership and Organisational

Performance (LOP) master suite at Heriot-Watt University (HWU), UK, as well as the Consortium Director of HWU's two Erasmus Mundus programs: the International Master's degree in Industrial Management (IMIM) and the Strategic Project Management European (MSPME).

As a member of the Women and Enterprise All-Party Parliamentary Group, a fellow of the UK Higher Education Authority, a University of Stirling supervisor, and a certified ICF and IAPC&M enterprise coach, Julie has continued to work closely with the entrepreneurial ecosystem across the UK.

Drawing from this experience in industry, in 2021 Julie launched the Academy of Enterprise Education (AEE) in order to provide practical and impactful enterprise education for industry, academic institutions and individual learners.





ABSTRACT

The Impact of Coaching in HE Enterprise Education

For the first time in history, we are in an era of embedded connectivity and for enterprise education, the mandate has become about equipping learners with practical knowledge and skills to effectively navigate the new commercial landscape. Yet what we've seen, is an increase in HE students suffering with stress (Guardian 2021) burnout, anxiety, depression and a host of other issues they can't manage and which impacts the learning journey (WHO, 2011). The study looks to determine how professional coaching can help enterprise education in the HE context.

The research takes an interpretivist approach to data collection and analysis. Empirical data were collected via 30 HE students undertaking enterprise coach training. Students were trained in the fields of psychology, neurology, and strategy and worked closely with their peers as coaches.

The findings suggest that the introduction of peer coaching in HE helps create clarity for students, in terms of mindset, direction, and strategies for change. The findings also indicate that coaching their peers, using professional coaching strategies, helped them draw on their strengths, highlighted the need for contextual empathy[™] (McFarlane, 2021), and provided them with a goal-focused, judgement-free way to address issues related to university burnout (Gazelle, Liebschutz & Riess, 2015).

The conclusions drawn from the study are placed within the context of the wider debate about enterprise education. They illustrate the link between the person and the entrepreneurial process. They contribute to our overall understanding of how to effectively and positively the inclusion of coaching impacts student engagement, the learning experience and impactful entrepreneurial outputs.



CONFERENCE COMMITTEE



Committee Members:

Dr. Samia Kamal and Katrina Gill as Co-Chairs

Elizabeth Cameron

Nicola Barretto

Afroditi Pekou

Mayuri Agrawal

Molly Palmer

Ruxandra Jianu

Stephanie Boyle

Strand Convenors:

Elizabeth Cameron

Katrina Gill

Samia Kamal

Andrea Macrae

Nicolette Michels

Paul Jackson

Special thanks to Warren Brown from Brown Creative, for the EVOLVE 22 conference artwork design.

BROOKES ENTERPRISE SUPPORT

OXFORD BROOKESUNIVERSITY

MAKE YOUR HAPPEN





