Curtin Early to Mid-Career Research Symposium 2024 – Tim Winton LT

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CONNECTING. SHARING. LEARNING.

24 October 2024 | Curtin University
Hosted by the Curtin Early and Mid-Career Researcher (EMCR) Network Steering Committee

Welcome

The Steering Committee of the Curtin Early and Mid-Career Researcher (EMCR) Network is pleased to the second annual EMCR research symposium. This event is for all Curtin University Staff, particularly Early and Mid-Career researchers.
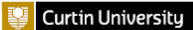
Acknowledgement of Country

Curtin would like to pay respect to the indigenous members of our community by acknowledging the traditional owners of the land on which the Perth campus is located, the Wadjuk people of the Nyungar Nation; and on our Kalgoorlie campus, the Wongutha people of the North-Eastern Goldfields. We acknowledge the contributions of Aboriginal and Torres Strait Islander ways of knowing and working to our research and its outcomes.

About the Network

The Curtin EMCR Network was established in 2021 to:

i) promote networking throughout the Curtin EMCR community
ii) promote career development for EMCRs at Curtin
iii) act as an advocacy group for Curtin EMCRs and
iv) act as a communication link between the University Executive, ROC, Faculty Deans and the network

The Network's activities contribute to Curtin's vision: working in partnership we will make a difference for people and our planet and is open to all EMCRs across our faculties and campuses.

Curtin 2030 Strategy on a Page
Early to Mid-Career Researcher Network

	People	Planet	Partnership
Vision	Working in partnership we will make a difference for people and our planet		
Strategic Positioning	Curtin EMCR network was established to i) promote networking throughout the Curtin EMCR community and beyond ii) promote career development for EMCRs at Curtin iii) advocate for Curtin EMCRs and iv) act as a communication link between the University Executive, ROC, Faculty Deans and the EMCR network		
Strategic Objectives	• **Student Experience:** Deliver a sector leading student experience that builds aspirations, fosters critical thinking, nurtures ethical leadership, and creates life-changing memories. • **Staff Engagement:** Cultivate a culture and working environment that provides an inspiring, rewarding, and meaningful experience for staff so that they can deliver world-class teaching and a sector leading student experience. • **Community Belonging:** Develop our people to champion diversity, inclusion, and belonging to make a difference to our communities.	• **Sustainable Future:** Strengthen our teaching, research, and outreach activities that support the United Nations Sustainable Development Goals to develop a sustainable future for all. • **Sustainable Operations:** Prioritise our own operational activities to significantly reduce our carbon footprint, food waste, water usage, and help others do the same. • **Global Impact:** Strengthen our position around the Indian Ocean Rim by developing further opportunities for learning, research and community engagement at our global campuses.	• **First Nations Voices and Perspective:** Embed voices and perspectives of First Nations peoples at the forefront of our decision making to create an environment in which everyone thrives. • **Strong Relationships:** Create strong, meaningful relationships with external stakeholders, driven by our culture of innovation, thought leadership, and action to make a difference. • **Community Outcomes:** Create new partnerships that deliver real engagement and outcomes for our local and global communities and enhance opportunities for students.
Measures of Success	• Development and delivery of a program an annual of professional development and networking events designed for Curtin EMCRs • Steering committee membership comprising diversity in gender, career stage (E/MCR) and type (T&R/RO), faculty, campus	• Sustainable operations embracing paperless document management • Event catering targets minimal food waste • Curtin EMCRs based at regional and global campuses participate in networking and professional development events and workshops	• Development of sustained relationships with key stakeholders within Curtin (e.g. Executive, Deans, ROC...) • Develop and sustain relationships with EMCR networks across WA and Nationally, seeking opportunity for co-delivery of networking events
Implementation Priorities (To be reviewed annually)	**Short-term Deliverables (2023-2024)**		
	• Deliver a series of professional development and networking events co-designed for Curtin EMCRs • Steering committee membership incorporates equal membership from each faculty, gender, and career stage with representation from Bentley, Perth, Kalgoorlie and global campuses	• All networking and professional development events co-designed with EMCR representatives located on regional and global campus and incorporate meaningful opportunities for remote EMCR staff to participate in events and workshops • Use of a Curtin approved sustainable event checklist	• EMCR Network representation sustained engagement with the Research Committee • Delivery of a cross institutional professional development event for EMCRs from UWA, Curtin and ECU.
	Longer-term Deliverables (2025-2030)		
	• Annual renewal of 1/3 of committee membership with succession plans in place for the Executive Committee • Up-to-date review of Professional Development needs of EMCR network • Thriving EMCR community of practice	• Sustained engagement with EMCRs based on regional and global campuses	• EMCR Network Executive provides input into consultation regarding university-wide initiatives
Values	Integrity ● Respect ● Courage ● Excellence ● Impact		

EXPRESSIONS OF INTEREST

EARLY-MID CAREER RESEARCHERS

Interested in joining us?

EOIs can be sent to Julia Easton at EMCR-Network@curtin.edu.au Looking forward to your help!

HTTPS://STAFFPORTAL.CURTIN.EDU.AU/ RESEARCH/RESEARCH-RESOURCES-AND- DEVELOPMENT/CURTIN-EARLY-AND-MID- CAREER-RESEARCH-NETWORK/

Details on how to apply at the end of the program.

EMCR NETWORK STEERING COMMITTEE

- 6 meetings per year (1-2 hrs)
- Working groups to drive University-wide change
- Learn new skills
- Build your network
- Share your knowledge and experience

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Welcome from the Network Steering Group Chair

As Early and Mid-Career researchers, we have competing priorities for our time and attention so I would like to acknowledge that each of you have taken the time to engage with your peers and focus on your research career today. It is great to be able to meet in person and I hope that you will learn something new from the excellent presenters and perhaps meet a new potential collaborator.

The Curtin EMCR Network Symposium has been designed by Early and Mid-Career researchers for Early and Mid-Career researchers. A key feature of the Symposium is the opportunity for EMCRs to showcase their research, with a focus on impact and novel approaches. Furthermore, there are multiple opportunities to network throughout the day. I would like to acknowledge the support of the Deans of Research, who have been involved in the speaker selection and are great advocates for the committee. We have been fortunate to have support from the Research Office Curtin in organising this event, as part of the Research Rumble.

These events don't just happen overnight, so I would like to acknowledge the leadership of Dr Terry Humphries and the support of the Executive including Dr Rebecca Waters and Dr Luke Strickland. Each of the committee members have been involved in the development of this day, as speakers, chairs of sessions, evaluating EOIs, organising speakers/panel sessions/programs/catering/flyers, promoting the event through our social media channels. The EMCR Network Committee members have *volunteered* their time to design, develop and deliver this fabulous event. Please take a moment to introduce yourself and say thank you to them!

Dr Julia Easton
Chair, Curtin EMCR Network Steering Committee
Senior Research Fellow, Group Leader | Curtin 4 Agribusiness Profitability
Centre for Crop and Disease Management
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Social Media Engagement

The EMCR Network Steering Committee have established a number of ways that you can engage with information and opportunities that are relevant for Early and Mid-Career researchers at Curtin:

1. Join the EMCR email list by emailing EMCR-Network@curtin.edu.au and asking to join
2. Join the EMCRN Teams channel by Searching for EMCRN or emailing EMCR-Network@curtin.edu.au and asking to join
3. Follow the Curtin EMCR Network Linked in page
   https://www.linkedin.com/company/104814569/admin/dashboard/

All of our social media is designed for EMCRs and anyone is welcome to join and participate in the conversation. We encourage you to engage in social media using #CurtinEMCR2024 to promote the symposium and our excellent researchers.

Details about the committee are available on the EMCR Network intranet page: https://staffportal.curtin.edu.au/research/research-resources-and-development/curtin-early-and-mid-career-research-network/ and details of your representatives are on the following pages and their biographies at the end of the program booklet.

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EMCR Network Steering Committee

Executive Committee

Dr Julia Easton

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Committee Members – Health Sciences

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Prof Stephanie Chan

MCR
Science & Engineering
Curtin Malaysia

Committee Members – Global and CAS (new roles in 2025)

TBA
Curtin Malaysia

TBA
Centre for Aboriginal
Studies

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PROGRAM AT A GLANCE: Tim Winton Lecture Theatre

TIME	ACTIVITY		
Chair:	Dr Julia Easton, Chair EMCRN Steering Committee		
9.00am	**Welcome to Country –** Aunty Millie **Official Welcome –** Prof. Matthew Tonts - Provost		
9.25am	**Keynote** *Opportunities, dilemmas and norms: on the ethics of AI use in research* Speaker: Prof. Anthony Langlois		
10.00 am	**EMCR RESEARCH PRESENTATIONS SESSION A**		
Chair:	Dr Bernardo Dewey, EMCRN Steering Committee		
Time	**Name**	**Title**	**School**
10.00am	Dr Michael Dizon	Predictive analytics and the future of law and regulation	Curtin Law School
10.12am	Dr Carol Dowling	Autoethnography as a Source of Wellbeing: Methodologies, Experiences & Challenges	CAS
10.24am	Dr Nardia-Rose Klem	What are the lived and care experiences of young people with chronic musculoskeletal pain and mental health impact? A qualitative evidence synthesis	Allied Health
10.36am	Dr Lucy Forman	Space rocks from Mars: what secrets do Martian rocks reveal about the red planet?	Earth & Planetary Sciences
10.50am	**Morning Tea**		
11.10am	**EMCR RESEARCH PRESENTATIONS SESSION B**		
Chair:	Associate Professor Katharina Wolf, EMCRN Steering Committee		
Time	**Name**	**Title**	**School**
11.10am	Session introduction and moving time		
11.22am	Dr Katie Kumasaka	Beyond the screen: The lived experiences of higher education students enjoying online learning.	Education
11.34am	Dr Patrick Duong	Benchmarking Multi-Modal Consumer Biometrics: Closing the Intention-Behaviour Gap in Sustainability	Marketing & Management
11.46am	Dr Hazik Mohamed	Exploring the Spectrum of Climate Risk Insurance: Types, Trends, and Future Directions	Curtin Singapore
11.58am	Dr Marshall Makate	The effect of a dementia diagnosis in elderly men: evidence from linked administrative data	School of Population Health
12.10pm	Dr Elizabeth Czislowski	Development of a novel nanoparticle technology as a next-generation fungicide	Centre for Crop & Disease Management
12.22pm	Dr Stuart Bender	Gen-AI and the threat of disappearing human creative labour in the screen education and production industries	Media, Creative Arts and Social Inquiry
12.34pm	Dr Luke Strickland	A computational cognitive model of automation-aided decision making	Future of Work Institute
12.50 - 1.30pm	**Lunch**		

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1.30pm	EMCR RESEARCH PRESENTATIONS SESSION C		
Chair:	Dr Sajib Mistry, EMCRN Steering Committee		
Time	**Name**	**Title**	**School**
1.30pm	Dr Lisha Dong	Optimizing Extraction of B-, Sn-, Fe-bearing, and Secondary Minerals from Borate Deposit	WA School of Mines - Kalgoorlie
1.42pm	Dr Sylvanna Mirichlis	Understanding Self-Injury Disclosure Decision-Making	School of Population Health
1.54pm	Dr Georgina Sauzier	Lipstick On Your Collar: Spectroscopic Investigations into Forensic Cosmetic Traces	Molecular & Life Sciences
2.06pm	Dr Sinead Wilson	Why parent choice of mediation strategies matters to young children's engagement with digital technologies in the home	Education
2.18pm	Dr June Cao	Catalysing Education 4.0 for the Sustainable Future: From Digital Literacy to Digital Competency and Digital Mindset in the Age of Industry 4.0	Accounting, Economics & Finance
2.30pm	Dr Christine Yeo Wan Sieng	A new non-destructive vision-based machine learning system for yellowness index measurement	Chemical and Energy Engineering at Curtin University Malaysia
2.42pm	Dr Rina fu Wong	Investigation of the Virucidal and Bactericidal Effects of a Nano-formulation of Australian Melaleuca alternifolia (Tea Tree) Oil against Human and Bovine Respiratory Pathogens	Curtin Medical School
3.00 – 3.15pm	**Brief Break**		
3.15 – 4pm	MC: Dr Julia Easton **Panel Discussion** *How can we expect the National University Accord to impact early to mid-career researchers?* Speakers: Prof. Gretchen Benedix, Associate Deputy Vice-Chancellor – Research Prof. Richard Blythe, Pro Vice-Chancellor - Faculty of Humanities Dr Marco Schultheis, Chief Strategy and Marketing Officer, Office of Strategy and Planning		
4pm	EMCR RESEARCH PRESENTATIONS SESSION D		
Chair:	Dr Rebecca Waters, EMCRN Steering Committee Executive		
Time	**Name**	**Title**	**School**
4.00pm	Dr Tony Mathew	Agent-Based Modelling Reveals Conditions for the Emergence of Latent Radicalism in Protest Movements	Centre for Optimisation & Decision Science
4.12pm	Dr Zehua Zhang	On heterogeneity of spatial dependence: data generation process and modelling	Design & Built Environment
4.24pm	Dr Sarah Sterne	Can Augmented Reality playgrounds get children moving or are there risks?	Allied Health
4.36pm	Dr Yijun Zhong	Electrode and Interface Designs for Better Solid-State Batteries	WA School of Mines
4.50pm	**Closing remarks - Dr Rebecca Waters**		
5-6pm	**Sundowner**		

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OFFICIAL WELCOME

Professor Matthew Tonts

Provost
Office of the Provost

Professor Matthew Tonts joined Curtin University as Provost in June 2024, having previously been Chair of the Western Australian Environmental Protection Authority. He has extensive experience spanning academia, industry and government, particularly in the areas of regional development, urban policy and environmental protection.

Professor Tonts has held a number of senior leadership positions in higher education spanning more than 20 years, most recently as Pro Vice-Chancellor and Executive Dean at The University of Western Australia. Matthew's academic career began with a Bachelor of Arts (Geography and Environmental Management) from Edith Cowan University, and he later went on to complete his Doctor of Philosophy (Geography) at Curtin University. In 2020 he was elected a Fellow of the Academy of Social Sciences in Australia.

He is an internationally recognised scholar and has published widely in the areas of economic geography, regional development and environmental management. Matthew's particular area of interest relates to the development of resource-dependent regions. He been an advisor to industry and government on environmental protection and planning, economic development strategy and urban development.

KEYNOTE PRESENTATION

Professor Anthony Langlois

Stan Perron Dean of Applied Ethics
Curtin Centre of applied Ethics
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anthony.langlois@curtin.edu.au

Professor Anthony J. Langlois is the Stan Perron Dean of Applied Ethics in the Faculty of Business & Law at Curtin University. He is the founding director of the new Curtin Centre for Applied Ethics. Langlois is a distinguished specialist on Human Rights and International Ethics, with over 25 years of experience as an educator, author and public speaker. He has an international reputation for his human rights scholarship, published by presses such as Cambridge and Oxford, and in leading academic journals. Among other responsibilities, he is on the editorial board of The Journal of Human Rights and the European Journal of Politics and Gender and is a commissioning editor for Australian Outlook (Australian Institute of International Affairs). He was educated at the University of Tasmania and the Australian National University.

Opportunities, dilemmas and norms: on the ethics of AI use in research

AI has taken the world by storm. From business applications to investment markets, and from astonishing productivity outcomes to spectacular new forms of creativity for monetization or personal pleasure, AI has been transformative and disruptive. It has also produced a wide range of dilemmas – from managing hallucinated facts, to the leverage AI gives the malign or desperate. In between these extremes, a plethora of possibilities unfold, laden with ethical consequences of all sorts. For researchers, while the opportunities are profound, they also highlight and, in some ways, magnify the underlying normative challenges and dilemmas which always lie within our research choices and practices. Nonetheless, AI comes to the fore at an unprecedented conjuncture for humanity, and for universities, with significant consequences for ethical reflection and practice.

Professor Gretchen Benedix

Associate Deputy Vice-Chancellor – Research
Research Excellence
G.Benedix@curtin.edu.au

As of August 2023, Gretchen was seconded into the role of Associate Deputy Vice-Chancellor, Research of Curtin University.

Gretchen (She/Her) is a cosmic mineralogist and astro-geologist using the chemistry, mineralogy, spectroscopy, and petrology of meteorites to understand the formation and evolution of asteroids and other planets. She joined Curtin in 2012 and has held a number of research fellowships. She was awarded a Senior Curtin Research Fellowship in 2014. She held an Australian Research Council Future Fellowship from 2018 to 2021. She is a member of the Space Science and Technology Centre in the School of Earth and Planetary Sciences.

Prior to her secondment, Gretchen was a teaching and research academic. Her research focuses on unravelling the evolution of the Solar System by finding connections between meteorites, asteroids, moons and other planetary bodies primarily through geological/chemical pathways. Her research experiences have culminated in exciting developments in using machine learning techniques to analyse digital imagery of planetary bodies.

Gretchen is passionate about STEM and being a positive role model for underrepresented groups in science (and planetary science in particular). She speaks regularly at outreach and public events and hopes to pass along some of her excitement for the study of the solar system to others.

She has won numerous awards for her research including having Asteroid 6579 re-named Benedix in 2006 by the International Astronomical Union for contributions to planetary science and the Antarctic Service Medal of the National Science Foundation - she took part in two meteorite searching field trips in Antarctica. She is a fellow of the Meteoritical Society (since 2014) and member of the Meteoritical Society (since 1994), American Geophysical Union (since 1994), National Association of Geoscience Teachers (since 1996), Mineralogical Society (since 2008) and Geological Society of America (since 2015).

Professor Richard Blythe

Pro Vice-Chancellor
Faculty of Humanities
richard.blythe@curtin.edu.au

Dr Richard Blythe is Pro Vice Chancellor of Humanities at Curtin University, a member of the Curtin Senior Executive Team, Chair of the Respect@Curtin Committee, PVC representative on the Curtin Digital Steering Committee and sits on the Curtin Foreign Risk Committee. Previously Richard has served as Professor in Architecture and Dean of the College of Architecture and Urban Studies at Virginia Tech, USA, Dean of the School of Architecture + Design at RMIT University, Melbourne Australia, Head of the School of Architecture + Design at RMIT, and Deputy Head of the School of Architecture at the University of Tasmania where he began his academic career as a lecturer. Richard has a strong track record in strategic institutional leadership.

Richard has served in a range of representative rolls. He served: as a member of the Australian Deans of the Built Environment Executive Committee; the Vice Chancellor's representative on the Tasmanian Government's Building and Construction Industries Council, Australia; President of the Society of Architectural Historians Australia and New Zealand; Chair of the Australian Institute of Architects National Education Committee; and Chair of the Australian Learning and Teaching Council Discipline Scholar Advisory Panel. He has served on many scientific committees and accreditation review panels. Richard was a founding director of the architectural practice Terroir.

Richard's research career is founded in a passion for creative practice, developing approaches to creative practice research and in building communities of creative practitioner researchers. He has achieved over $6.8M in research funding in practice-based research as it relates to a range of disciplines through Australian and European funding agencies.

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Dr Marco Schultheis

Chief Strategy and Marketing Officer
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Dr Marco Schultheis is the Chief Strategy and Marketing Officer at Curtin University. His portfolio responsibilities include strategic planning, global branding, marketing and engagement, strategic projects portfolio management, product portfolio management, pricing, market and institutional research, and business intelligence and analysis.

After completing an Associate Diploma in Engineering Marco commenced his career with an EFT-POS design and manufacturing firm. He was involved the development and implementation of the firm's quality management system as well as product design and manufacturing.

Marco went onto complete a Bachelor of Commerce with majors in Finance and Marketing and a Masters of Strategic Marketing. With now over 25 years of experience in the field of strategic planning and management Marco has worked in a variety of roles at Curtin University including as a sessional academic teaching in the fields of Market Research and Sports Marketing as well as the Director of Marketing and Alumni.

In 2016 Marco completed a Doctorate of Business Administration and his research focused on the effect Business Intelligence systems have on the quality of strategic decision making.

Marco is a graduate of the Australian Company Directors course and a graduate member of the AICD and in 2017 completed a high potential leaders program at Harvard University. He has also served on the University's Council and as non-Executive Director on the YMCA, Perth Board and is currently the co-Chair of the Australian Network of University Planners.

PRESENTER BIOGRAPHIES AND ABSTRACTS

Centre for Aboriginal Studies

Dr Carol Dowling
Centre for Aboriginal Studies
Carol.Dowling@curtin.edu.au

Carol is a proud Badimia (Yamatji) woman (Nyarlu) knowledge holder/leader (Marja) whose family comes from the Central West of WA. She has worked as Lecturer in Aboriginal Studies for over 32 years at Curtin University, Edith Cowan University and University of Western Australia specialising in Aboriginal arts, Indigenous Research Methodologies/postgraduate studies, human rights, sustainability, politics and culture. Carol holds a Bachelor of Arts (Aboriginal & Intercultural Studies) from Edith Cowan University and a Master of Arts (Indigenous Research and Development) from Curtin University. Carol has a Doctorate in Social Sciences from Curtin University with her PhD research involving an auto-ethnography of five generations of Badimia women in her maternal family. Dr Dowling has also won two national Australian Human Rights Commission awards for radio in 2013 and 2014. As inaugural Chair of the Badimia Bandi Barna Aboriginal Corporation (BBBAC), Carol along with committee members and elders wrote a healthy country plan that led to a $15.2m joint management agreement with the WA state government for 114,000 hectares including two former pastoral leases and seven reserves.

Autoethnography as a Source of Wellbeing: Methodologies, Experiences & Challenges
A 14-year doctoral journey to document five generations of women in my Badimia (Yamatji) family created an autoethnographic research journey of healing. As an exploration it enabled the current generation of women in my family to discuss and analyse our constructions of identity as a decolonising process. This empowered those of us who remain to repair/restore crucial links with Badimia ancestral tribal lands and to generate a stronger account of our survival against colonial oppression. Importantly, we had opportunities to interrogate the exhibition of indigenous people as ethnographic subjects overseas with particular focus on the experience of my apical ancestor, Melbin, and to recount her fragmented story.

A tapestry of stories was created as a strong foundation for a contemporary manifestation of a living, continuous account of survival. We explored and uncovered rich, deep and revealing content that documented a counter-colonial history in Australia. When First Nations women's lives are documented and analysed, the extent and impact of wudjula (white) domination can be revealed. A trajectory can be mapped when successive generations of women are exposed to racism, sexism and colonialism. This map acts as a statement about identity construction and the creation of Aboriginal women as objects of spectacle.

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Faculty of Business and Law

Dr Michael Dizon
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Michael Anthony C. Dizon, PhD, is a Senior Lecturer in Law, has held academic positions in New Zealand, the Netherlands, the United Kingdom and the Philippines, and previously worked as an ICT lawyer. His principal area of research is law and ICT. He has conducted and published research on encryption, hacking, intellectual property, and technology regulation. His current research interests are cybersecurity and cybercrime laws and the norms and values of law and technology. More broadly, his research focuses on the plurality of rules in the information society and involves the socio-legal study of technology, creativity and innovation.

Predictive analytics and the future of law and regulation

With the increasing use of data mining, machine learning and AI by governments around the world, the problems and risks of applying predictive analytics in regulation have gone beyond the realm of science fiction. Predictive policing is reminiscent of Precrime in The Minority Report where people are arrested before they commit crimes. Further, the ignominious Robodebt scheme illustrates the dangers of uncritical deployment of automated decision-making systems in governmental functions.

The main aim of this presentation is to explore the conceptual and practical issues with prediction-based regulation by examining the interplay between and among descriptive, prescriptive and predictive rules in law. Understanding how these 'is', 'ought' and 'will be' rules interact with and impact each other are critical for the responsible adoption of both algorithmic technology and predictive regulation by governments. This presentation explains the long-running debate about Hume's law and whether there can be 'no ought from is'. It then discusses how the introduction of 'will be' rules via predictive analytics further exacerbates the theoretical and regulatory complexity. The presentation sketches out the dynamic qualities and relations of descriptive, prescriptive and predictive rules and what they mean for the future of predictive regulation and law in general.

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Dr June Cao
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Dr June Cao is an Early Career Researcher in Faculty of Business and Law, Curtin University. June's core research focus is the burgeoning areas such as SDGs, carbon accounting, carbon disclosure/assurance, green innovations, ESG/CSR, and the cutting edge of sustainability reporting and green supply chain management. Her commitment to research excellence is evidenced by over 30 articles published in high-impact journals. Her research performance has been recognized by several prestigious research accolades, including FBL Research Output of Year Award, FBL New Researcher of the Year Awards, FBL International Engagement Award, Best Paper Awards. She is on the Editorial Advisory Board of the *Journal of Accounting Literature*, the Lead Guest Editor of the *Pacific Accounting Review* and an Associate Editor of the *Accounting Research Journal*.

Catalysing Education 4.0 for the Sustainable Future: From Digital Literacy to Digital Competency and Digital Mindset in the Age of Industry 4.0
This study focuses on digital literacy, competency, and mindset within the context of Industry 4.0 and sustainability challenges. Utilising the Web of Science database, we analysed 423 studies from 271 journals published between 2008 and 2024. Through keyword co-occurrence and clusterisation, we identify four research streams: (1) digital transformation and organisational sustainability, (2) industry-linked digital skills, (3) pedagogic advancements in the digital age, and (4) education for sustainable development.

We propose future research explore (1) integrating education and technology for environmental sustainability, (2) empowering digital wellbeing through education, and (3) leveraging digital technology for inclusive development. The study highlights the strategic roles of various stakeholders, including industries, educational institutions, government bodies, and the United Nations SDGs. Specifically, global efforts to bridge the digital divide are crucial for achieving sustainable development goals.

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Dr Hazik Mohamed
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Dr Hazik Mohamed is a multi-skilled professional with substantial business management and varied experience in strategic, problem-solving, project management and operational leadership roles. He has over 25 years of working experience and spent over 15 years building start-ups and business consulting, where he has consulted for MSMEs and MNCs on various business-related issues. His past multi-lateral corporate clients also include the ASEAN Secretariat, national finance offices, and the UNCDF.

Hazik is the published author of Belief and Rule Compliance (Academic Press by Elsevier, 2018) on behavioural economics, Blockchain, Fintech and Islamic Finance (De|G Press by De Gruyter, 2019; 2nd Edition, 2022) and Beyond Fintech (by World Scientific, 2020). His wide research interests include financial inclusion, sustainable development, new technology for disruptive socio-economic advancement. Currently, he is a sessional lecturer at Curtin University (Singapore) where he teaches economics for the undergraduate programs and engaged in various independent consulting projects. He possesses a BSc in Engineering, an MSc in Finance and a PhD in Islamic Finance, focusing on Behavioral Economics using Game Theory for policy and decision-making analysis.

Exploring the Spectrum of Climate Risk Insurance: Types, Trends, and Future Directions
One of the most important instruments for reducing the financial effects of climate change is climate risk insurance. The many forms of climate risk insurance — such as crop, property, flood, parametric, business interruption, liability, and life and health insurance — are examined in this paper. Examples from actual situations are used to illustrate each type, including the National Flood Insurance Program's reaction to Hurricane Katrina and the index-based insurance offered by African Risk Capacity.

New developments in the field are also covered, such as public-private partnerships, like the Caribbean Catastrophe Risk Insurance Facility, blockchain technology for increased transparency, and microinsurance for low-income groups. The paper outlines novel future directions that include using AI and big data for advanced risk modelling, creating resilience bonds, and offering premium discounts as incentives for risk reduction. These strategies seek to improve climate risk insurance's effectiveness and accessibility. The incorporation of these models into more comprehensive strategies for climate adaptation can help practitioners and policymakers better anticipate and address financial risks associated with climate change.

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Patrick is an Associate Lecturer and Research Fellow at the Consumer Research Lab, School of Management and Marketing. He received his conferral in August 2024. Integrating theories and research instruments from marketing, consumer neuroscience and economy, his research focuses on developing a multidisciplinary research paradigm to enhance the market competitiveness, resilience and sustainability of the Australian Food and Beverage producers. To date, his research output includes 11 peer-reviewed journal articles with 95 citations. He has also delivered multiple impactful demand-driven workshops for various industry stakeholders, including Linley Valley Pork, Jade Tiger Abalone, and Australian Council of Prawn Fisheries.

Benchmarking Multi-Modal Consumer Biometrics: Closing the Intention-Behaviour Gap in Sustainability

Responsible consumption is a major step to mitigate human impact on the environment. However, there exist a gap between what an individual says (about their intention to consume responsibly) and how they act. To encourage responsible consumerism, there could be value in unpacking the factors contributing to this intention-behaviour gap. Human decisions are primarily driven by emotions and psychological processes that are implicit and exist outside the individuals' conscious awareness. Therefore, to understand the factors driven decisions, one must require a methodological advancement beyond the conventional self-report or interviews.

This program, therefore, will develop a multi-modal predictive method integrating self-report, in-market data, and consumer biometrics (e.g., pupillometry, skin conductance, heart rate, and facial expressions) to determine how psychological processes (causally inferred by psychophysiological metrics) could predict actual sustainable consumption (measured by market success). Research findings will be disseminated through key industry bodies (e.g., ACPF, DPIRD and Food Agility CRC) after the embargo period to establish industry-wide practices. This project will: (1) establish a multi-modal framework that is capable of casually inferring the psychological mechanisms underlying choices; (2) develop theoretically driven solutions to encourage sustainable behaviours; (3) extend strategic partnerships with food and beverage industry through collaborative research and dissemination.

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Dr Luke Strickland is an ARC DECRA Fellow at the Curtin Future of Work Institute. His research spans cognitive science, human factors, and quantitative methods. He has a particular interest in building process models of human decision making and applying them to understand performance in the workplace.

A computational cognitive model of automation-aided decision making

Increasingly, people work with automated advice that assists their decisions. It is essential to understand how humans integrate automated advice into their decisions to anticipate the benefits and risks of providing such advice. Here, I present a computational model of the cognitive processes by which humans incorporate automated advice. This model frames human decisions as a process of accumulating evidence until threshold. It incorporates two processes by which automated advice can affect decisions: an advisory process that inhibits evidence accumulation to decisions disagreeing with advice, and a reliance process that excites evidence accumulation to decisions agreeing with advice.

The model was tested using performance data from an air traffic control conflict detection task. Across several experiments, it provided an accurate account of the effects of automated advice on human choices and response times. The cognitive processes underlying the use of automated advice varied based on automated advice's reliability (accuracy), with high-reliability advice being granted more autonomy over decisions. Even when shifts in reliability were not signalled, participants adapted their automation use strategies by learning from feedback. Future directions and implications for work systems will be discussed.

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RESEARCHER NETWORK

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Ir. Ts Dr. Christine Yeo Wan Sieng is an Early Career Researcher and Curtin University Alumni, currently associated with the Department of Chemical and Energy Engineering at Curtin Malaysia. Her research focuses on agriculture, artificial intelligence (AI), and wastewater management. She aims to drive sustainable development and foster innovation to make tomorrow better. She has contributed to research publications, presentations, and secured grants and awards. She is passionate about sustainability, climate change mitigation, and other relevant fields.

A new non-destructive vision-based machine learning system for yellowness index measurement

Colour instruments are costly and need maintenance, services, and repairs. Furthermore, they only provide the colour data to calculate the colour index including the yellowness index (YI) and not the direct index. Moreover, colour instruments like spectrophotometers can only measure the colour data for liquids, and they contaminate the liquids and make them waste. To address these limitations of colour instruments, this study aims to develop a vision-based machine learning system. It is a low-cost, non-contact, and direct or real-time measurement of YI to automatically inspect products in the manufacturing line for quality assurance and control.

In this study, a machine learning model, namely the locally weighted Kernel partial least square regression (LW-KPLSR) was integrated with a computer vision system (CVS) programming model to predict the YI directly. This CVS-LW-KPLSR was used to perform real-time YI measurements using MATLAB mobile. This study also conducted experiments to measure the colour data from the hardcopy colour charts using two portable colourimeters to obtain the YI. Then, the performances of this newly developed CVS-LW-KPLSR model and colourimeters were investigated and compared. The results are the root mean square error (RMSE), the mean absolute percentage error (MAPE), and the coefficient of determination (R^2).

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RESEARCHER NETWORK

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Dr Georgina Sauzier is a forensic and analytical chemist specialising in trace evidence analysis, obtaining her PhD in forensic chemistry from Curtin in 2016. Her primary research combines spectroscopic techniques with multivariate data analysis to profile materials recovered from crime scenes, building statistical models to help link these traces to a suspect source or generate leads for investigators. A significant volume of this research is carried out in collaboration with local forensic service providers and law enforcement.

Lipstick On Your Collar: Spectroscopic Investigations into Forensic Cosmetic Traces
The physical nature and chemical variability of cosmetics make them an ideal form of forensic trace evidence, yet little research has been carried out in this area. Studies to date have largely focussed on assessing the level of chemical variation within a particular cosmetic category in so-called "market surveys". However, real forensic traces are expected to be more complex due to exogenous components and environmental factors. In this study, synchrotron infrared microscopy and X-ray fluorescence microscopy were used to investigate the microscale chemistry of lip cosmetic traces in the form of 'lip prints'.

Chemical mapping revealed distinct variations in both organic and inorganic distribution between products that could assist in discriminating macroscopically similar cosmetics. ATR-FTIR spectroscopy was then used to investigate the effect of environment, substrate, and skin effects on the chemical composition of cosmetic traces over a mid-term period. The effect of sunlight and water exposure was highly dependent on initial cosmetic composition, although overall little change was observed over a 3-month period. Analysis of traces in situ on cellulose-based substrates proved challenging, while no discernible effect was seen from wearing of cosmetics on the skin over 4 hours. These results help shed light on cosmetic transfer and persistence for the development of interpretation frameworks in forensic chemical analysis.

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RESEARCHER NETWORK**

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Lucy is an early/mid-career researcher and lecturer in the Space Science & Technology Centre, within the School of Earth & Planetary Sciences. Having completed her PhD in 2017 with a commendation from the vice chancellor, she has worked with researchers across the globe to characterise meteorites from a number of different places in the solar system. Lucy's research focusses on understanding the processing history of meteorites and what that can tell us about asteroid and planetary evolution, and the history of our solar system. She won the Endeavour Leadership award in 2019 from the Australian Department of Education as a leader in microscopy, and is now the unit coordinator for the first Planetary Science unit taught in EPS. Since 2020, Lucy has been a research associate at the WA Museum where she assists in the curation of the vast meteorite collection. Lucy is also an active science communicator and enjoys sharing her research and passion with the public during science outreach activities and events. Since 2021, Lucy has worked part time to balance her work and growing family, and her passion for all things space remains strong.

Space rocks from Mars: what secrets do martian rocks reveal about the red planet?
Understanding the secrets Mars holds and unravelling its history are a top priority for space scientists and stakeholders all over the world. With multiple missions to Mars including landers, rovers, and orbiters over the past 50 years, we have built an impressive database of multipurpose information to better investigate the current status and history of our nearest neighbour. Whilst these missions have greatly enhanced the scientific hypotheses we have of Mars, the extent of geological analyses that can be performed remotely do not compare to those we can do with terrestrial rocks here on Earth.

Meteorites- rocks originating from another planetary body- fall to Earth on a very regular basis. Global collections contain over 76,000 individual specimens from across the solar system, and only 391 are from Mars. These rare and unique samples are allowing for in-depth microscopic investigations into the geological history of Mars here at Curtin University. Current studies are investigating the crystallographic properties of a 2.3 billion year old martian meteorite that is unique amongst martian samples. The process of a rock being ejected from the parent body (Mars in this case) is a violent one, where shock processes can vastly alter the physical and chemical properties of the rock. The sample under investigation does not have extensive evidence of shock processing and appears to be the least shocked martian sample we have ever seen. This means many of the original features of the rock are still present, despite the journey it has had to Earth. It is also very old in comparison to many other martian samples we have recovered, and so there is much to be learned from this tiny sample.

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RESEARCHER NETWORK

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Dr. Lisha Dong currently works as a Research Fellow in the Western Australian School of Mines: Minerals, Energy and Chemical Engineering, Kalgoorlie Campus, Curtin University. She works together with Associate Professor Bogale Tadesse, Laurence Dyer, Richard Alorro, and Senior Lecturer Boris Albijanic on various mining industry projects in partnership with BHP and Venture Minerals. She also engages with international researchers from institutions such as China University of Mining and Technology, Central South University, Helmholtz-Zentrum Dresden-Rossendorf and Michigan Technological University.

Dr. Dong was awarded her PhD in Mineral Processing and Metallurgical Engineering from the School of Chemical Engineering at the University of Queensland (UQ), financially supported by the Australian Commonwealth Government and UQ. She completed her Master of Philosophy degree in School of Chemical and Biomolecular Engineering at the University of Sydney, where she received funding from the Royal British Society to work at the Energy Research Institute, University of Leeds in UK. Her current research focuses on advanced beneficiation technologies for fine and ultrafine particles, including comminution, gravity separation, and hydrometallurgy (flotation and leaching) as well as pyrometallurgy. She is also dedicated to the recycling and reutilization of solid wastes for renewable energy generation, with a commitment to sustainable development. To date, she has contributed to 20 journal papers and 3 conference papers.

Optimizing Extraction of B-, Sn-, Fe-bearing, and Secondary Minerals from Borate Deposit
Metallic elements like tin and iron, along with non-metallic elements like boron, play essential roles in industrial sectors, including renewable energy development, electronics, and agriculture. As industries shift toward a low-carbon economy, the demand for extracting these elements is roaring. Consequently, mineral processors are prioritizing the borate beneficiation. In this study, we utilized several advanced techniques to achieve thorough understandings of mineralogy, liberation, elemental composition, and chemical adsorption properties of the deposit and generated products. The techniques employed included quantitative X-ray diffraction, Tescan Integrated Mineral Analyzer, particle size distribution, X-ray fluorescence, inductively coupled plasma-optical emission spectrometry, zeta potential, and UV-visible spectroscopy.

Following comprehensive characterizations, we tested several separation techniques to enhance borate beneficiation. The methods investigated included magnetic, hydrocyclone separation, and flotation. To refine magnetic and gravity separation, we conducted a series of experiments with various parameters and setups. We tested different experimental conditions, including varying magnetic field strength, adjusting hydrocyclone operation parameters, and optimizing reagents and conditions. We also conducted both micro and batch flotation. Through detailed characterizations and separation experiments, we aimed to develop an optimized beneficiation flowsheet. Insights gained can contribute to the mineral processing, supporting efficient and sustainable extraction of critical elements for various industrial applications.

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Dr Tony Joseph Mathew is a research associate at the Centre for Optimisation & Decision Science, holding bachelor and doctorate degrees in chemical engineering. His current research spans social science and process engineering. He has a particular interest in the development, simulation, and mathematical analysis of agent-based models (ABM) to uncover qualitative behaviours that emerge in a human population (macroscopic level) when people interact (microscopic level) under various situations.

Agent-Based Modelling Reveals Conditions for the Emergence of Latent Radicalism in Protest Movements

The goal of a protest movement is to convince the authority to implement change, with protester actions ranging from conventional (e.g. petitioning) to radical (e.g. sabotage). While the members are working collectively towards a common goal, they are also individuals. Each protestor has their own perspectives about the movement, which determine the course of action they take. Moreover, these perspectives are known to evolve as the authority signals whether their protests were successful or not, as they internally process the outcome, and as they communicate with their peers.

In this work, we developed an agent-based model to simulate the evolving perspectives and actions of protestors. This model is grounded in a framework of psychological theory that has been empirically validated. Through a comprehensive numerical simulation analysis, we identified that there are broadly two types of emergent population states: either the population is mixed about whether to act but are largely favouring conventional tactics, or the population is predominantly disengaged but radicalised. This latter scenario, latent radicalism, is of central interest in many contexts, as it reflects the precursor to revolutionary action, where a simple spark is potentially capable of triggering mass protest.

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Dr. Yijun Zhong is a research associate at Curtin University. His research focuses on developing functional materials for highly efficient energy storage, e.g., Li(-ion) batteries, zinc-based batteries and proton batteries. His primary interests lie in understanding the effect of structure, composition, and morphology on the electrochemical properties of these materials.

Electrode and Interface Designs for Better Solid-State Batteries
The development of new electric applications powered by batteries could further take advantage of Australia's abundant mineral resources (e.g., Li, Ni, Mn). Utilizing solid-state electrolytes addresses the safety concerns of flammable organic liquid electrolytes in commercially available batteries (e.g., conventional Li-ion batteries). High resistance and instability of the interfaces on both the cathode and the anode sides are key challenges of solid-state lithium batteries. Recently, we have been dedicated to designing new electrode materials for solid-state batteries based on different battery chemistries. In this conference, we will present our recent works on the development of lithium-containing composite anodes with functional components, which focused on establishing efficient ionic and electronic pathways within electrodes and on the electrode-electrolyte interfaces for lowering overpotentials of the anode of solid-state lithium batteries. We will present our recent works on quasi-solid-state Zn-based batteries and share the latest results on designing electrode materials for a new-type all-phosphate solid-state proton battery.

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RESEARCHER NETWORK

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Dr Elizabeth Czislowski is an early-career Research Fellow at the Centre for Crop Disease Management. Her research focuses on molecular plant pathology and fungal biology. Since completing her PhD, Dr. Czislowski has specialised in the development of novel crop protection technology including RNA interference, nanoparticle-based fungicides and novel target discovery for fungicide development.

Development of a novel nanoparticle technology as a next-generation fungicide

Plant pathogenic fungi significantly threaten global food security and agricultural productivity. For instance, fungal diseases in wheat result in ~$AUD900 million in annual losses for Australian wheat producers. To combat these pathogens, the agriculture sector has increasingly relied on synthetic fungicides to protect crops. However, the effectiveness and availability of these chemicals are diminishing due to various issues, including off-target toxicity, a shortage of new chemicals and the rise of resistance in fungal populations. This creates an urgent need for innovative fungicide solutions.

In response, our project investigates the use of 'DNA origami'—nanoparticles composed entirely of folded DNA—as a novel approach for delivering fungicidal agents into fungal cells. We have studied the stability, uptake, and cellular toxicity of these nanoparticles in various plant pathogenic fungi. Our goal is to advance this research by creating nanoparticles that release fungicidal compounds in response to specific triggers, such as fungal cell uptake. The ultimate objective is to develop "smart" fungicides with improved properties, including reduced off-target effects and enhanced efficacy. This advancement aims to benefit the agricultural sector in Australia and globally by addressing the growing challenge of fungal pathogens.

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RESEARCHER NETWORK

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Marshall Makate is a Senior Lecturer and Associate Director of Graduate Research in the School of Population Health at Curtin University. His research uses economic theory and advanced econometric methods to examine health disparities, evaluate policies, and model health workforce dynamics. His interests include economic evaluations of health interventions, cost-effectiveness analysis, and developing economic models to guide resource allocation and health workforce planning in healthcare. With a strong track record of publications in leading economics and development journals, Marshall has successfully secured over $1 million in research funding, driving impactful research that informs health policy and improves health outcomes.

The effect of a dementia diagnosis in elderly men: evidence from linked administrative data.
This study investigates the impact of a dementia diagnosis on healthcare costs, physical health, quality of life, and transitions into residential aged care among elderly men in Western Australia. We employ a fuzzy regression discontinuity design (RDD), utilising a cognitive assessment threshold commonly used in dementia diagnosis to estimate the effects of receiving a formal diagnosis. The analysis draws on comprehensive linked administrative data, including hospital, pharmaceutical, and aged care records, enabling us to track changes in healthcare utilisation, residential aged care admissions, and overall quality of life following diagnosis. Our preliminary findings reveal a significant increase in healthcare costs, driven by higher rates of hospitalisation, medication use, and long-term care services. Furthermore, there is evidence of accelerated transitions into residential aged care shortly after a dementia diagnosis, highlighting the additional burden on aged care facilities. In addition, we observe a notable decline in physical health and activities of daily living, accompanied by a reduction in overall quality of life as measured by the SF-6D score. These results provide essential insights into the growing economic and health care challenges posed by dementia, offering valuable guidance for policymakers in managing resources and improving care services for an ageing population.

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Dr Rina Wong (Fu) is a scientist, author and artist who shares science creatively through multimodal engagement. She enthralls students through original songs, interactive workshops & lectures, award-winning animations, videos and craft. She completed her doctoral fieldwork in Papua New Guinea, examining malaria drug resistance for which Rina received the prestigious ASP Sprent Medal. Rina is a part-time lecturer at ECU School of Medical and Health Sciences, and attained her Fellowship of the Higher Education Academy in 2022. After a career break she re-entered research as a postdoctoral research officer at Curtin Health Innovation Research Institute with interests including malaria, adult stem cells, Australian tea tree, novel crocodile collagen peptides and COVID-19. She was the keynote speaker at 'It Takes a Spark STEAM educonference' and delivers invited talks and workshops to schools and community groups including children with disabilities. Rina is peer-recognised for her creative scientific works locally and internationally. For more see RinaFu.com.

Investigation of the Virucidal and Bactericidal Effects of a Nano-formulation of Australian Melaleuca alternifolia (Tea Tree) Oil against Human and Bovine Respiratory Pathogens

Naturally-derived bioactive molecules with antiviral/bacterial properties are sought for human and animal health and alleviation of antimicrobial resistance. Australian Tea Tree Oil (TTO) derived from Melaleuca alternifolia contains a range of active molecules. A nano-emulsion of TTO (nTTO) was developed with characterisation by particle sizing, zeta potential and cryo-electron microscopy. Virucidal effects of TTO and nTTO [10%, 5%, 2.5%] against enveloped and non-enveloped viruses were investigated by TCID50 assay. TTO (10%) and nTTO (5%) completely inactivated bovine herpes virus-1 (BHV1) whilst TTO (5%) produced a 4-log reduction in titre. TTO and nTTO were ineffective against non-enveloped Echovirus-12 and murine Norovirus. Against Influenza virus, TTO and nTTO at 10% resulted in a 96.7% and 69% reduction. Respiratory Syncytial Virus titre was reduced by 70% and 99% respectively, using 2.5-10% TTO and nTTO solutions. 10% TTO inactivated SARS-CoV-2 coronavirus after 30-45 mins and human-coronavirus-NL63 in 15 mins. Vapours from undiluted, 10% and 1% TTO and nTTO inhibited the bovine respiratory disease co-pathogen bacterium, Mannheimia haemolytica together with BHV1. The nano-formulation of TTO was effective in inactivating enveloped respiratory viruses. Our novel micro-vapour assay demonstrated the potential of virucidal and bactericidal vapours from TTO and nTTO, with application to other volatile plant extracts.

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Dr. Nardia-Rose Klem is an ANZBACK Clinical Fellow and a myPATH post-doctoral researcher. Her research focuses on chronic musculoskeletal pain conditions, particularly in young people, and the intersection with mental health conditions, chronic low back pain, knee osteoarthritis, as well as the physiotherapy workforce's capacity to manage musculoskeletal conditions. Dr. Klem's work draws heavily on qualitative approaches to elicit nuanced experiences, behaviours, and perspectives that inform high-value, patient-cantered care.

What are the lived and care experiences of young people with co-existing chronic musculoskeletal pain and mental health conditions?

Chronic musculoskeletal pain is a global health priority. In Australia, chronic pain affects 1 in 5 people across the lifespan, imposing a substantial health and economic burden on individuals and their broader communities. Among young people aged 16 to 24 years, chronic pain coincides with a critical developmental period characterised by complex biological, psychological, and social changes, as they attempt to make sense of their identities. The prevalence of mental health conditions also peaks during this period; up to 25% of adolescents will experience a mental health condition, and up to 75% of those with mental health problems also experience pain. Currently, the relationship between chronic musculoskeletal pain and mental health conditions is understood to be bidirectional: pain can exacerbate mental health issues, and mental health conditions can intensify the experience of pain. However, the nature and lived experience of this interaction in young people are poorly understood, which is critical for developing care solutions tailored to their needs.

To address this knowledge gap, I present the findings of a systematic review and qualitative evidence synthesis on the lived experiences and care experiences of young people with coexisting chronic musculoskeletal pain and mental health conditions. The results indicate that this group is significantly understudied in the scientific literature. Available data reveal that young people experience multiple impacts on their social lives, significant worry about their condition and future selves, physical limitations affecting work and study, and feelings out of control. Additionally, they described challenges in receiving age-appropriate and timely care, with many feeling dismissed or invalidated by health professionals. These findings have been interpreted through a model of allostatic load, which considers the cumulative burden of chronic stress and life events, involving the interaction of various physiological systems at differing levels of activity. Future directions and implications for work systems will be discussed.

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Sylvanna completed her PhD earlier this year in Curtin's School of Population Health (Psychology). The focus of her PhD research was on the disclosure of non-suicidal self-injury complementing her passion for mental health promotion and destigmatisation. Currently, Sylvanna is working in a multidisciplinary team at Curtin's enAble Institute to better understand how to support the mental health of children transitioning into secondary school, using a neuroaffirming approach.

Understanding Self-Injury Disclosure Decision-Making

Non-suicidal self-injury (NSSI) is the deliberate damage caused to a person's own body without suicidal intent. Whilst NSSI often serves a function, with emotion regulation being the most commonly reported, it is associated with a number of adverse outcomes including mental health difficulties and later suicidal thoughts and behaviours. Voluntarily disclosing one's NSSI can be a key catalyst to gaining support, whether it be informally amongst social relationships, or in seeking professional help. Despite this, many individuals do not disclose their NSSI. Across five studies utilising mixed methods in my PhD, I sought to better understand the decision-making process for NSSI disclosure. Studies 1-3 sought to identify factors associated with the decision of whether to disclose NSSI and their importance. Studies 4-5 explored how such considerations may be engaged with in the process of disclosure decision-making. This research has contributed to understandings of how to support those considering disclosing their NSSI and how best to respond to NSSI disclosures. Ultimately, this work identifies pathways for help-seeking to address the negative outcomes associated with NSSI.

Dr Sarah Stearne
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Sarah Stearne is an Early Career Researcher and currently works as a Research Fellow at the Centre of Excellence for the Digital Child at Curtin University. Her background is in the area of biomechanics and she has worked with both athlete and clinical populations on understanding the mechanics and energetics of running. As part of the Digital Child team, Sarah aims to better understand the physical impacts children may experience when engaging with newer digital technologies, such as extended reality. Sarah hopes to help parents and educators be better informed in navigating new digital technologies and how our children can use them in a healthy way.

Can Augmented Reality playgrounds get children moving or are there risks?

Augmented Reality (AR), where a smart-device uses camera(s) to present a view of the real-world with digital information super-imposed, is increasingly available in children's lives. AR has been shown to motivate children to learn and adults to exercise. However, there is little evidence on whether AR could help children enjoy, and thus participate more in physically active play or if there are risks such as simulator-sickness and peer-disconnection.

17 pairs of children aged 5–8-years searched for six plastic toy or AR (visualised using an Apple iPhone) animals in a laboratory simulated playground. Questionnaires assessed enjoyment, peer-connection and simulator-sickness, an accelerometer captured postures and movements, and video recorded engagement time.

Children rated enjoyment higher and engagement time was longer during AR compared to toy conditions (enjoyment: ~4.5/5vs~4.2/5, time: ~244.5vs~177.5mins). Peer-connection was high across all AR conditions (~4.9/7). Most (91.5%) children reported no simulator-sickness. Proportionally more time was spent standing and less time running during AR conditions (standing: ~9.1vs~3.1%, running: ~12.0vs~25.6%).

AR enhanced playgrounds may be effective at motivating children to go to and stay longer at playgrounds and remain connected to their peers without the risk of simulator-sickness, ultimately resulting in greater physical and wellness

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RESEARCHER NETWORK**

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Katie Kumasaka is a Lecturer in the School of Education. She is a dedicated educator and passionate advocate for the Humanities and Social Sciences. Katie has taught Humanities and Social Sciences across a wide range of curricula, spanning from national mandated curricula to international frameworks. Her PhD investigated higher education student experiences with flow when learning online. This research involved using phenomenological methods to explore the unique experiences of flow and highlights Katie's interest in using creative and reflective methodologies to explore human behaviour and emotions. Her current research involves exploring flow in Humanities and Social Science students in higher education and hopes her research can impact the way students engage with content which promotes social justice and ecological literacy.

Beyond the screen: The lived experiences of higher education students enjoying online learning.

In an era of increasing digital education, the rapid growth of students enrolling in online courses in higher education has been accompanied by issues and challenges concerning students' motivation and engagement while learning in this mode. Investigation of the positive and successful learning experiences of students in these environments can assist in shedding light on how to enhance online learning environments and improve student experience. Through the application of flow theory (Csikszentmihalyi, 2008) in a hermeneutic phenomenological approach, the study delved deeply into the intricacies of online students experiencing the phenomenon of optimal enjoyment or flow.

Data from 54 Australian university students were collected through qualitative questionnaires, interviews and journaling with Interpretive Phenomenological Analysis (Smith et al., 2022) framing interpretation of findings. Key findings revealed that flow is influenced by authentic real-world tasks, and students with greater education self-efficacy are better positioned to experience flow. A significant contribution of this research is the application of Phenomenological methodologies to study student engagement and flow, which offers a deep and richer exploration of the lived experiences of students studying online. The study also offers insights for online designers, educators and students about how to optimise learning experiences in the online environment.

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Zehua Zhang obtained his PhD degree with Chancellor's Commendation from Curtin University in 2023 and was awarded 2023 Humanities Greg Crombie Postgraduate Work of the Year Award. He is currently a researcher of Geospatial Intelligence Lab and working as a Sessional Academic at Curtin University. His research interests include spatial statistics, spatial data science, GIS and transport and population geography.

On heterogeneity of spatial dependence: data generation process and modelling

Geospatial modelling is taking advantages of spatial dependence feature from geographical information. Spatial dependence refers to the phenomenon that closer observations are similar to each other and one observation may impose spillover effects to its geographical neighbours. Currently, spatial autoregressive processes modelled by spatial lag model, spatial error model, and their derivatives quantify the characteristics of spatial dependence based on a spatial weight matrix and a spatial autocorrelation coefficient assuming constant spatial dependence level across space. However, these models oversimplify the situations where the strength of spatial autocorrelation is changing over the space. Thus, in our research, by applying change point detection to error analysis, we captured the structure of heterogeneity in spatial autocorrelation. The new model – Heterogeneous Spatial Autocorrelation Model (HSAM) has been tested through Monte Carlo simulations and applied to a transport geography case study in the Greater Perth Area. The new model can provide additional decision-making values to spatial planning with better accuracy, and it is recommended to be applied to other relevant spatial autoregressive studies.

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Dr Sinead Wilson is a Research Fellow in the School of Education at Curtin University, and a member of the Australian Research Council Centre of Excellence for the Digital Child. Sinead's PhD investigated the digital technologies young children are engaging with, and how parents and educators can best manage children's active learning with these technologies while staying safe online. Sinead's aim is to use the knowledge gained through her PhD research and apply it to a broader national context, especially in relation to digital policy. Her vision is for each and every Australian child to have a balanced and safe access to online accessible digital devices in both their home and education contexts.

Why parent choice of mediation strategies matters to young children's engagement with digital technologies in the home

The digital environment within the family home determines children's exposure to digital technologies, and their development of early digital skills and literacies. The digital devices available in a household are often shaped by parents' beliefs, family circumstances and socioeconomic status (Plowman et al., 2014). Therefore, understanding the mediation strategies employed by parents to manage children's technology use, facilitate active and constructive engagement, and protect them from unwanted inappropriate or harmful online interactions are key to understanding family digital cultures.

Using a multiple case study approach, families from four Western Australian early years education and care centres were invited to participate in this research. Interview questions evoked rich discussions with parents and included an exploration of the opportunities and potential risks related to children's engagement with digital technologies in the home. What emerged was a range of parenting decisions and mediation strategies that directly influenced young children's engagement with digital technologies in the home.

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RESEARCHER NETWORK

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A/Prof Stuart Bender is Discipline Lead for Theatre & Screen Arts in the School of MCASI. His media research focuses on the cognitive and social effects of high-emotion content with a particular emphasis on emerging technologies. His education research in curriculum and pedagogy addresses critical literacy in relation to Gen-AI.

Gen-AI and the threat of disappearing human creative labour in the screen education and production industries

This presentation addresses Gen-AI in the creative media industries in terms of the disappearance of human creative labour, against the background of the discourse of the 2023 Writers' and Actors' strikes, which replicated prevailing assumptions of the superiority of human creativity. Such discourse emphasises a 'replacing tasks' model to stave off human obsolescence, anticipating a future where AI simply assists human workers.

There is a fundamental missed opportunity presented by this model, and I propose an alternative framework of human-AI coexistence that amplifies human creativity. This conceptual shift recognises and values human contributions in the media industries (as in all workplaces). Drawing on the historical parallel of the transition to digital visual effects (VFX) during the production of *Jurassic Park* (1992), I demonstrate how transformational technologies can transcend mere task simplification. Through a surprising discovery, the film's VFX team were able to collaborate to significantly enhance the film's storytelling by combining human artistic insight with advanced technology.

Key takeaways include a clearer understanding of what *are* the essential human contributions to creative work – or any other kind of intellectual work, for that matter – as well as a model of co-existence beyond simply replacing 'the boring bits' of work.

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EXPRESSIONS OF INTEREST

EARLY-MID CAREER RESEARCHERS

Interested in joining us?

EOIs can be sent to Julia Easton at EMCR-Network@curtin.edu.au Looking forward to your help!

HTTPS://STAFFPORTAL.CURTIN.EDU.AU/
RESEARCH/RESEARCH-RESOURCES-AND-
DEVELOPMENT/CURTIN-EARLY-AND-MID-
CAREER-RESEARCH-NETWORK/

EMCR NETWORK STEERING COMMITTEE

- 6 meetings per year (1-2 hrs)
- Working groups to drive University-wide change
- Learn new skills
- Build your network
- Share your knowledge and experience

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Expressions of Interest are invited from Curtin early and mid-career researchers to join the Early-Mid Career Researcher Network Steering Committee.

The Steering Committee coordinates a university-wide Early-Mid Career Researcher Network. Membership comprises up to five EMCRs from each faculty, with diversity across disciplines, gender, seniority, research and research/teaching and (where possible) campus affiliation, ensuring research centre/institute as well as school engagement. More details on the committee members are available [here](#).

Why Join the EMCR Network Steering Committee?

There are many reasons! Those who invest in this role receive the following benefits:

- The opportunity to collaborate with a group of friendly, supportive, and highly proactive academic colleagues from diverse research disciplines. Your personal network at Curtin will expand by joining this network and you will learn a lot from your new colleagues by watching them work!
- The opportunity to meet and work with key stakeholders at the University, including ROC personnel, the ADVC-R, DVC-R, Faculty Deans of Research, and influential academics at Curtin. Your visibility and influence across the campus will increase through your contributions to this network!
- The opportunity to influence Curtin University's research policy by providing feedback from the EMCR Network to the University Research Committee and to ROC.
- The opportunity to collaborate on larger scale EMCR collaborations with other universities, institutions, and discipline peak bodies.
- The opportunity to develop your own leadership skills by testing your ideas with your EMCR Network colleagues and taking on informal leadership roles.
- The opportunity to advocate for your EMCR Colleagues.

How is the EMCR Network Steering Committee Structured and How can I Help?

Since its founding in March 2021, the Steering Committee has established the governance framework and developed three subcommittees responsible for content and a fourth governance subcommittee. Each EMCR Steering Committee member is a member of one of the three subcommittees. The structure may change in the future, but for now, please think about which subcommittee you would be most interested in joining:

1. **EMCR Network Establishment and Maintenance.** Responsible for ensuring that all eligible Curtin EMCRs can access the EMCR Network's Teams site and that the EMCRN website is kept up to date.

2. **EMCR Networking and Communications.** Responsible for organising EMCR Network events and maintaining connections with other EMCR networks such as discipline-based networks (e.g., Australian Academy of Humanities), EMCR networks from other universities and institutions, and key influencers in the academic community (e.g., Chief Scientist).

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3. **EMCR Professional Development.** Responsible for consulting with the EMCR Network to identify professional development needs, consulting with ROC, the University Library, and other stakeholders to identify and consolidate PD opportunities, identifying gaps between PD demand and opportunities, and finding ways to close these gaps. (note, subcommittee members are **not** expected to run PD sessions themselves, though they are welcome to!)

An individual from each of the subcommittees above will take the role of Subcommittee Lead.

4. **EMCR Steering Committee Executive and Governance.** Responsible for the ongoing functioning of the overall EMCR Network Steering Committee, and for liaising with key stakeholders at Curtin including ROC, the ADVC-R, the University Research Committee, Faculty Deans of Research. This subcommittee comprises: EMCR Network Steering Committee Chair, Vice Chair, Secretary, Treasurer, and the designated subcommittee lead from each of the three subcommittees above.

What is Expected of me?

Before nominating, please consider that membership involves a time commitment, and that the committee cannot function effectively unless all members are committed to the cause.

You are expected to attend the **six EMCR Network Steering Committee meetings**. Each meeting runs for 1.5-2 hours. Consideration is given for people who cannot attend the occasional meeting, but attendance in at least 5 of the 6 meetings is considered essential for the functioning of the committee. Meetings are conducted in hybrid format, however, face to face attendance is appreciated where it is possible.

You are also expected to **join at least one of the three subcommittees** and **participate actively in the subcommittee work**. This may involve joining a regular meeting with the subcommittee members and undertaking activities for the subcommittees independently between meetings.

Finally, we expect that all committee members would join for a 2-year term, however, consideration will be given if you are on a fixed-term contract with less than two years remaining. If you have a significant period of leave planned for the next two-years, please let us know when you nominate so we can plan for a short-term substitute.

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The total time commitment is estimated as follows:

Activity	Preparation	Live	Total / year
Attend EMCRN SC Meetings	0.25 hours × 6 meetings	1.5 hours × 5 meetings	12 hours
Subcommittee Meetings	0.25 hours × 16 meetings	1 hour × 16 meetings	20 hours
Subcommittee Activities		12 hours	12 hours
Total (member)			**44 hours**
Executive / Subcommittee Lead Activities	24 hours	1 hour × 16 meetings	40 hours
Total (Leader)			**84 hours**

Am I eligible to nominate?

If you meet the following criteria, you are eligible to nominate:

- Candidates must hold a current employment position at Curtin University. This excludes adjunct and university associate arrangements.
- Preference will be given to candidates with research or research and teaching employment arrangements.
- Early Career is defined as within 5 years of PhD award (or equivalent) at the time of the EOI application.
- Mid-Career is defined as between 5 and 12 years post award of their PhD at the time of the EOI application.
- **Note that in determining eligibility the time since PhD award (or equivalent) will be calculated to take into account career breaks or interruptions.**

Researchers may self-nominate for a role on this committee, but the approval of their relevant line or area manager is required.

Expressing Interest:
Keep an eye out for a call from via EMCRN Teams channel and by email via your Dean of Research – Expressions of Interest close **29 November 2024**. Reach out to Julia Easton at EMCR-Network@curtin.edu.au if you have any questions.

This notice will be distributed widely but please do not hesitate to share with your colleagues.

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EMCRN STEERING COMMITTEE MEMBER PROFILES

Executive Members

Dr Julia Easton (ECR), Chair
Centre for Crop & Disease Management,
Faculty of Science & Engineering
Julia.Easton@curtin.edu.au

Julia Easton leads the Curtin for Agribusiness Profitability (C4AP) Initiative in the Centre For Crop & Disease Management (CCDM) at Curtin University. C4AP is focussed on developing spatial analytics tools for grains and horticulture incorporating simple economic analysis to understand the value of making data-driven decisions. Julia began her academic career in 2019 when she joined Curtin. Julia has been a Chief Investigator or part of the leadership team of 10 research projects with a total of ~$25.6M from the Grains Research and Development Corporation (GRDC), Food Agility CRC, JTSI and the Future Drought Fund through the Grower Group Alliance.

She works with closely with farm businesses and their advisors to develop decision support tools to visualise, analyse and experiment with crop performance and predict return on investment of management practice change. Julia was awarded both the Curtin Research Excellence Award – Partnerships and the Food Agility CRC Industry Engagement Award in 2023. She is part of the senior leadership team for AAGI - Analytics for the Australian Grains Industry, which is a national program focussed on building analytics research capability for the grains industry in collaboration with the University of Queensland, University of Adelaide and GRDC. Julia is part of the senior leadership group for the CCDM where she also plays a key role in the EMCR professional development program.

Julia was the founding Chair of the Curtin Early to Mid-Career Research Network Steering Committee and has worked hard over the past 3 years to set the strategic direction, deliver events and networking opportunities designed by and for Curtin EMCRs, engaging with the Research Committee and Deans of Research to promote an EMCR perspective on strategic items and forming the WA EMCR network with the EMCR committees from the University of WA and Edith Cowan University.

Dr Terry Humphries (MCR), Vice Chair
Hydrogen Storage Research Group, EECMS
Faculty of Science & Engineering
Terry.Humphries@curtin.edu.au

Terry Humphries is a Senior Research Fellow in the School of EECMS and is part of the Hydrogen Storage Research Group (HSRG). He has been developing hydrogen and energy storage materials for 18 years and this time has worked in many research labs around the world including Canada, Norway, Denmark, USA, Japan and Australia.

During his career, Terry's research interests have been in the development of materials for hydrogen storage, thermal energy storage, hydrogen export and solid-state batteries. Terry is adept in the synthesis and analysis of air sensitive materials and specialises in the development of inert atmosphere and in situ analysis techniques. His research endeavours have led to the publication of over 80 research articles with over 150 global collaborators.

Through energy research and industrial collaborations, the HSRG team have won Curtininnovation awards in 2022 for "Hydrogen export as a powder" and 2019 for "Thermal batteries for solar thermal power plants", and also the 2022 Team Research Award for Industry Engagement and Impact in the Science and Engineering Excellence Awards.

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Dr Rebecca Waters (ECR), Secretary
School of Allied Health
Faculty of Health Sciences
R.waters2@curtin.edu.au

Dr Rebecca Waters is an occupational therapist, teaching and research academic, and relational and strategic leader currently employed in Curtin's School of Allied Health. She is passionate about developing the next generation of allied health practitioners and influencing the quality of human service delivery for people who are marginalised and disadvantaged. Her research and teaching interests are in the areas of person-centred approaches in health and human services, lived experience, disability, violence, trauma and abuse, and inclusion. Rebecca is currently part of a national team investigating trauma-informed health care and the parameters around service provision and access for women leaving family and domestic violence. She is mostly a qualitative researcher, and recently has begun exploring autoethnography as a method for understanding the development of professional identities.

Rebecca is the previous Discipline Lead for Occupational Therapy at Curtin and maintains strong industry connections across health and human services both locally and nationally. She established and maintains the WA Disability Occupational Therapy Network, an online support network for more than 1500 occupational therapists and occupational therapy students.

As an Early-Career Researcher, Rebecca was frustrated with the difficulties she experienced in navigating a research career in allied health post completing her PhD. She is one of the inaugural members of the Curtin EMCR Network Steering Committee, and over the past three years, has worked tirelessly with the EMCRN Executive as secretary to establish the committee and develop opportunities for the University's EMCR Network.

Dr Luke Strickland (ECR)**,** Treasurer
School of Management and Marketing
Faculty of Business & Law
Luke.Strickland@curtin.edu.au

Dr Luke Strickland is an ARC DECRA Fellow at the Curtin Future of Work Institute. His research spans cognitive science, human factors, and quantitative methods. He has a particular interest in building process models of human decision making and applying them to understand performance in the workplace. He is the treasurer of the Curtin EMCR Network Steering Committee.

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Committee Members

Dr Bernardo Dewey (ECR)
Curtin Medical School
Faculty of Health Sciences
bernardo.dewey@curtin.edu.au

Bernardo is a Research Fellow at the Indigenous Health Research Program at Curtin Medical School. He brings to his team over a decade of experience working in various roles across academia, government and the non-profit sector in Argentina, Mexico, and Australia. Bernardo holds a Bachelor of Arts in Sociology and has recently completed his Doctoral degree at the School of Social Sciences at the University of Western Australia. He is currently working on the Jinda Maawit Project, a mixed methods research study that aims to build a foundational understanding of stillbirth knowledge among Aboriginal women in the Noongar Boodjar regions. Bernardo is also the Unit Coordinator for ANTH3005 Social Inequality: Possibilities for Change at Curtin University.

Dr Brittney Lins (ECR)
Health Science Research & Graduate Studies
Faculty of Health Sciences
brittney.lins@curtin.edu.au

Dr. Brittney Lins is an early career researcher trained in neuroscience and interested in cognition, behaviour, inflammation, and pharmacology. Dr. Lins completed her Ph.D. at the University of Saskatchewan, Canada (conferred 2020) where she investigated the relationships between inflammation and cognition, as well as used glutamatergic and dopaminergic interventions to both disrupt and rescue cognitive performance. In her current role at the Perron Institute through Curtin University, Dr. Lins is applying her knowledge of inflammation, cognition, and behaviour outcomes to investigate damage processes in models of traumatic brain injury and neurodegeneration with Professor Lindy Fitzgerald.

Dr Carly Steele (ECR)
School of Education
Faculty of Humanities
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Dr Carly Steele holds the position of lecturer and Master of Education Course Coordinator at Curtin University, Perth. She is an applied linguist and a fully qualified teacher with over 12 years' experience in diverse educational contexts across Australia including urban cities, and rural and remote communities. Her research aims to promote culturally and linguistically responsive teaching and assessment practices.

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A/Prof Gemma Crawford (ECR)
Curtin School of Population Health,
Faculty of Health Sciences
G.Crawford@curtin.edu.au

Dr Gemma Crawford has more than 20 years of experience in the practice, advocacy, leadership, policy, teaching and research of health promotion and public health. Her work is underpinned by a commitment to 4-Es: evidence, equity, ethics and empowerment. As a recognised pracademic, she brings her deep industry and community knowledge to her academic roles across teaching, research and engagement.

As an Associate Professor in Public Health and Health Promotion in the Curtin School of Population Health, Gemma holds roles as Director of Graduate Research and Course Coordinator for the Master of Public Health. She also convenes and teaches a range of award-winning undergraduate and postgraduate coursework health promotion and public health units grounded in work-integrated learning and adventurous pedagogy. Gemma is Deputy Director (Capacity-Building) with the Collaboration for Evidence Research and Impact in Public Health (CERIPH) where, as a social scientist, she supervises students and undertakes collaborative, community-facing and real-world research and evaluation using applied, qualitative and mixed methods across a range of complex health and social policy issues, particularly those which affect underserved populations and have upstream causes and solutions.

Gemma is a Senior Fellow of the Higher Education Academy UK and an IUHPE Registered Health Promotion Practitioner. She is the Immediate Past National President of the Australian Health Promotion Association (AHPA) (a role she held for 10 years). In 2020 Gemma was recognised for meritorious service as the youngest Life Member of the Australian Health Promotion Association.

Dr Giles Thomson (ECR)
School of Design & Built Environment,
Faculty of Humanities
giles.thomson@curtin.edu.au

Dr Giles Thomson is an ARC DECRA Fellow at the Curtin University Sustainability Policy Institute within the School of Design and Built Environment. His research focuses on urban sustainability transitions. Prior to completing his PhD, he spent 12 years working as an urban designer and city planner in both industry and government in Australia, UK and the US. He has a particular interest in the notion of regenerative cities – cities designed to optimise urban metabolism and integrate nature for the benefit of citizens and to contribute to planetary health.

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A/Prof Katharina Wolf (MCR)
School of Management & Marketing,
Faculty of Business & Law
K.Wolf@curtin.edu.au

Katharina Wolf is an Associate Professor in the School of Management and Marketing and Lead of the Faculty of Business and Law's public relations program. She draws on more than twenty-five years of communication and media experience, as an educator and industry professional. Her industry experience encompasses communication and research roles in Germany, Spain, the United Kingdom and Australia.

Katharina strongly believes in the power of education, not only to satisfy her own curiosity and commitment to ongoing personal and professional development, but also as a transformative tool for shaping future generations of communicators and change agents. Originally trained as a publishing manager, her outlook on life has been shaped by a deeply engrained passion for books and magazines, and an appreciation for the gift of education – driven by a desire to question, explore and understand.

Katharina is a Fellow of Communication & Public Relations Australia (CPRA) and an Accredited Practitioner with the Chartered Institute of Public Relations (CIPR). Her research interests include community advocacy, civic engagement, public interest communication and diversity.

Her contributions to teaching and research have been recognised through numerous local, national, and international awards.

Dr Kelli Larson (MCR)
Curtin Law School,
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kelli.larson@curtin.edu.au

Dr Kelli Larson is a Lecturer at Curtin Law School. Her research addresses the intersections of law, business and technology through an interdisciplinary perspective. Kelli is currently conducting research in the area of patent law and litigation, corporations law and corporate governance. She completed a Doctor of Science Degree majoring in Commercial Law in 2017 from Hanken School of Economics in Finland. Her doctoral dissertation titled 'The Exploitation and Enforcement of Patents by Non-Practicing Entities: Practices, Developments and Future Challenges' analysed patent laws, litigation and patent enforcement in the context of the non-practicing entity phenomenon in major patent jurisdictions, including the USA, Europe and China. In addition to her doctoral degree, Kelli also holds a Diploma in Business Administration, a Diploma in International Trade, a Bachelor of Business degree, a Bachelor of Laws degree, Master of Science (Commercial Law) degree and a Graduate Certificate in Learning & Teaching for Higher Education.

Kelli is a Fellow of the Higher Education Academy. She has presented her research at numerous national and international conferences and has coordinated and taught several law (LLB, LLM, PhD) and business (MBA) units, including commercial law, corporate law, corporate governance, contract law, patent law, copyright law, civil procedural law and Alternative Dispute Resolution. She has been a Research Fellow at the Center for the Protection of Intellectual Property at George Mason University, USA, a Visiting Researcher at the University of Calgary, Canada, a Visiting Researcher at LegalEDHEC, EDHEC Business School, Lille, France, a Visiting Researcher at the Max Planck Institute for Intellectual Property and Competition Law in Munich, Germany and was an Invited Researcher at the Institute of Intellectual Property in Tokyo, Japan.

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Dr Lucy Forman (ECR)
School of Earth & Planetary Science,
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Lucy is an early/mid-career researcher and lecturer in the Space Science & Technology Centre, within the School of Earth & Planetary Sciences. Having completed her PhD in 2017 with a commendation from the vice chancellor, she has worked with researchers across the globe to characterise meteorites from a number of different places in the solar system. Lucy's research focusses on understanding the processing history of meteorites and what that can tell us about asteroid and planetary evolution, and the history of our solar system. She won the Endeavour Leadership award in 2019 from the Australian Department of Education as a leader in microscopy and is now the unit coordinator for the first Planetary Science unit taught in EPS. Since 2020, Lucy has been a research associate at the WA Museum where she assists in the curation of the vast meteorite collection. Lucy is also an active science communicator and enjoys sharing her research and passion with the public during science outreach activities and events. Since 2021, Lucy has worked part time to balance her work and growing family, and her passion for all things space remains strong.

Dr Sagi Kunju Mathew (MCR)
School of Marketing & Management
Faculty of Business & Law
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Dr. Saji K. Mathew serves as a lecturer in the Discipline of People, Culture, and Organisation (PCO) within the School of Management and Marketing at the Faculty of Business and Law. He earned his PhD from Swinburne University of Technology in Melbourne, Australia, in 2011. Additionally, he holds a postgraduate qualification in Human Resource Management from CQ University, a Master of Science in Zoology from Barkatullah University in Bhopal, India, and a Bachelor of Teaching degree from the National Open University in India.

Dr Mathew's research focuses on the cross-cultural challenges associated with managing employee relations at subsidiaries of Japanese multinational corporations within the automobile industry. His scholarly work has been published in peer-reviewed international journals. He has also presented at prestigious international management conferences and serves as a keynote speaker at various international events. At Curtin University, Dr Mathew teaches human resource management courses at both the postgraduate and undergraduate levels.

He has also taken on the role of Course Leader for Human Resource Management.

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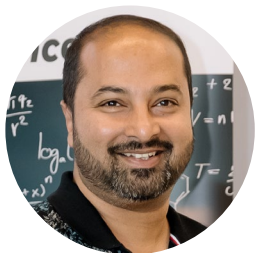
Dr Sajib Mistry (ECR)
School of Engineering, Computing and Mathematical Sciences
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Dr Sajib Mistry is a distinguished academic and researcher in the field of computer science, currently serving as a senior lecturer at the School of Electrical Engineering, Computing, and Mathematical Sciences (EECMS) at Curtin University, Australia. Dr. Mistry completed his PhD in Computer Science from RMIT University's School of Science. He furthered his academic journey as a Postdoctoral Research Fellow at the School of Computer Science, University of Sydney. Dr Mistry's expertise lies at the intersection of secure machine learning, large language models (LLM), IoT/edge/cloud computing, data analytics, and industrial applications within distributed autonomous systems. His remarkable problem-solving skills and exceptional research contributions led to his nomination for the Distinguished Early Career Researcher in 2022. Notably, he specializes in economic model-based Infrastructure as a Service (IaaS) composition and was honoured with the Best Paper Award at ICSOC 2016, a prestigious conference in service computing. Recognized for his contributions, Dr Mistry has been elevated to the rank of Senior Member by the European Alliance for Innovation (EAI) and Vice Chair of IEEE WA Section. He holds the position of Associate Director at Curtin High-Performance Intelligent Systems (HPIS), granting access to cutting-edge supercomputing facilities. With a proven track record of securing competitive grants totaling 1.3 million dollars from various industries including the Department of Defence and the Australian Academy of Science, Dr. Mistry has led numerous research projects. His involvement in a large-scale Australian defence project focusing on cloud/edge-based microservices for ML-based data analytics underscores his commitment to impactful and innovative research.

Prof Stephanie Chan Yen San (MCR)
Curtin Malaysia,
Science and Engineering
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Prof Stephanie Chan is a Professor in Biosystems Engineering - Chemical Engineering and Head of the Chemical Engineering Department. She completed her PhD in 2014 and has won numerous awards for her research including ACS Outreach Volunteers of the Year (2022), Curtin Malaysia Research Star Award (2021), Gold medal award - 3rd Word International Invention Innovation iCAN (2018) Toronto International Society of Innovation and Advanced Skills (TISIAS) Special Award. The 3rd International Invention Innovation Competition in Canada, (iCAN 2018), Young Women Award. Venus International Foundation (2018), Gold medal award - 3rd Word Invention Innovation Contest (WiC) organized by Korea Invention News (KINEWS) and co-organized by iCAN -TORONTO (2017) and Special honor of Invention. 3rd Word Invention Innovation Contest (WiC) (2017). Her research interests include Bionanotechnology specifically on bionanomaterials synthesis, nanoformulation, Biotechnology in relation to agricultural biotechnology, Bioprocessing of phytomedicine for therapeutic actions and Chemical engineering. Stephanie has led 14 research projects and has published 8 book chapters and over 50 research publications.

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Dr Shengping Li (ECR)
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Dr. Shengping Li is a Lecturer in Construction Management within the School of Design and the Built Environment at Curtin University. Before this, she was awarded a CSIRO Early Research Career Fellowship and worked as a postdoctoral research fellow at CSIRO, contributing to the "Towards Net Zero" project in Australia. She received her PhD from the University of Melbourne. Her research covers Sustainable Construction, Decarbonisation of the Built Environment, Building Energy Efficiency, Low Carbon Cities, Circular Economy, Material Flow Analysis, and Life Cycle Assessment. She has been involved in over ten research projects funded by a variety of institutions across Australia, Singapore, and China. She has served as scientific and organizing committee members for international conferences and has been invited to present her research at international conferences. Moreover, she is a member of Engineers Australia, the International Society for Industrial Ecology, and Member of the American Society of Civil Engineers. She is also a unit coordinator, lecturer, tutor, and PhD supervisor at Curtin University.

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