Australian Academy of the Humanities

54th Annual Academy Symposium
16 & 17 November 2023
Melbourne Victoria

Between humans & machines: exploring the pasts & futures of automation

Program

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#AAHSymposium

About the Academy

The **Australian Academy of the Humanities** is the peak national body for the humanities and one of the nation's five Learned Academies.

Established in 1969, we provide independent and authoritative advice, including to government, to ensure ethical, historical and cultural perspectives inform discussions regarding Australia's future challenges and opportunities. We promote and recognise excellence in the humanities disciplines. The Academy plays a unique role in promoting international engagement and research collaboration and investing in the next generation of humanities researchers.

Our elected Fellowship comprises 705 scholars, leaders and practitioners across the humanities disciplines of cultural and communication studies, history, languages, linguistics, philosophy, religion, archaeology and heritage.

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Program at a glance

Wednesday 15 November 2023	
G06 Theatre, Elisabeth Murdoch Building	
5.30pm	**Annual Academy Lecture** Professor Emeritus Lesley Head FASSA FAHA
6.30pm	**Reception**

Thursday 16 November 2023	
Kaleide Theatre, RMIT University	
9.00am	**Introduction & welcome**
9.30am	**Session one** Keynote conversation
11.00am	**Morning tea**
11.30am	**Session two** Automating public culture
12.50pm	**Viv introduction**
1.00pm	**Lunch**
2.00pm	**Session three** Automating life & death
3.30pm	**Afternoon tea**
4.00pm	**Hancock Lecture** Artificial figures: gender-in-the-making in algorithmic culture
State Library of Victoria	
5.45pm	**New Fellows Signing**
6.45pm	**Academy Dinner**

Friday 17 November 2023	
Kaleide Theatre, RMIT University	
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10.00am	**Session five** Machine memories, method & histories
11.30am	**Morning tea**
12.00pm	**ARDC Update**
12.10pm	**Session six** Rights & revolutions
1.30pm	**Lunch**
2.30pm	**Informal offsite social event**

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Welcome from the President

On behalf of the Australian Academy of the Humanities, we warmly welcome you to the 54th Academy Symposium '*Between humans and machines: exploring the pasts and futures of automation*'.

In hosting our 2023 Symposium in Melbourne at RMIT, we acknowledge we are meeting on the lands of the Bunurong Boon Wurrung and Wurundjeri Woi Wurrung peoples of the Eastern Kulin Nation. We recognise their continuing connection to the land and waterways, and the traditional knowledge systems of which we stand in urgent need, as we work together to achieve a sustainable society. It is also critical, at this forum, that we recognise that Indigenous data sovereignty is a particular concern we must address.

Automation has been debated and explored since at least the late eighteenth century. Today these debates are compelling. Few aspects of our lives will be left untouched by the mounting wave of automation.

The perspectives humanities scholars can bring are crucial to identify both the opportunities and costs of automation. Speakers will consider the history of the relationship between humans and machines, and implications of the application of technology in novel ways - from virtual autopsies to artificially intelligent avatars who are able to support people living with dementia. The range of speakers and ideas that will be presented, provide an opportunity to showcase the rich diversity of insights and possibilities that humanities scholars and practitioners of the public humanities offer to society.

This year will be my last year as President of the Academy. I am proud of the work we have undertaken in the face of a global pandemic, a change in government, and the ongoing reckoning with major global challenges. I look forward to spending time with you in person, as we resume and re-energise engagement across the Fellowship and beyond.

I would like to take this opportunity to thank Professor Jean Burgess FAHA and Professor Julian Thomas FAHA for their hard work and collegiate generosity in convening this year's Symposium. They have worked tirelessly to bring together researchers and practitioners from across Australia, and globally – all with unique and varied perspectives on this important topic.
We hope that you enjoy what is bound to be a rich and thought-provoking program.

Emeritus Professor Lesley Head FASSA FAHA
Academy President

Convenors' welcome

Welcome to the Academy's 2023 Symposium, devoted to the theme of *Between humans and machines: Exploring the pasts and futures of automation*.

From large language models to quantum computing, arguments about the human risks and possibilities of currently emerging technologies are increasingly prominent in public debate.

Our Symposium's approach to these questions takes several starting points. First, while much of our contemporary public and policy discussion foregrounds technology, we aim to highlight the depth and breadth of contemporary humanities scholarship in illuminating humans' highly variable and dynamic relations with machines.

Second, although existential, highly abstract technology risks loom large in current debate, we are especially interested in investigations into those forms of digital and mechanical automation that are and have been enmeshed in life and work. Third, rather than frame discussion around a particular technology such as the current forms of artificial intelligence, we have focussed instead on automation, the longer run transformations where, in different ways, places and times, machines have taken on human activities, sparking new ideas, arguments and forms of inquiry.

Professor Head's Academy Lecture invites us to reimagine the relations between humans and the world; we hope the work brought together in our Symposium provides resources for rethinking some equally entrenched and unhelpful ideas about humans and machines.

The Symposium begins with two conversations.

The first, introduced by Julian Thomas, involves three distinguished researchers and practitioners. Malavika Jayaram, Melissa Gregg and Lyndon Ormond-Parker consider both what we need to know about humans and machines in different places and contexts, and the practical, creative and important ways in which we can begin to recast the relations between them. The second conversation, facilitated by Indigo Holcombe-James and involving Seb Chan, Joel Stern, and Kimberley Weatherall, shifts the focus to the dynamic of automation and creativity in public culture and cultural institutions.

Jill Bennett then introduces an important guest: Viv, an artificially intelligent character, co-created with women living with dementia. Viv is an authority on the experience of dementia diagnosis and living with hallucinations. We then turn to a series of papers, ranging from the study of automata in Greco-Roman antiquity to imagined AI societies and the emergence of virtual autopsies in our own time. Tatiana Bur, Roslynn Haynes, Marc Trabsky and Elizabeth Stephens explore automation in life and death.

In our 2023 Hancock lecture, Dr Thao Phan considers how, in the making of AI systems and technologies, gender itself is also being reformulated and remade. And at our Academy dinner, Genevieve Bell reflects on another story of automation.

Our keynote lecture on Friday morning shifts the focus from algorithmic culture to the role of mathematical models in contemporary decision-making. Erica Thompson discusses the critical work now done by models, and the ways in which they go wrong. How do we sustain human agency when so many of our decisions in critical areas such as climate change, economic management and public health are shaped by models?

Convenors' welcome

We turn then to a sequence of historically informed reflections on the relationship between human and machine intelligence. Richard Yeo considers a forerunner of today's AI-powered search engines; Marnie Hughes-Warrington compares machines and human historical reasoning; and Gerard Goggin discusses the implications of assistive technologies for our taken-for-granted accounts of automation.

Jenny Fewster will then update us on planning future work for the Humanities, Arts, Social Sciences and Indigenous Research Data Commons at the Australian Research Data Commons.

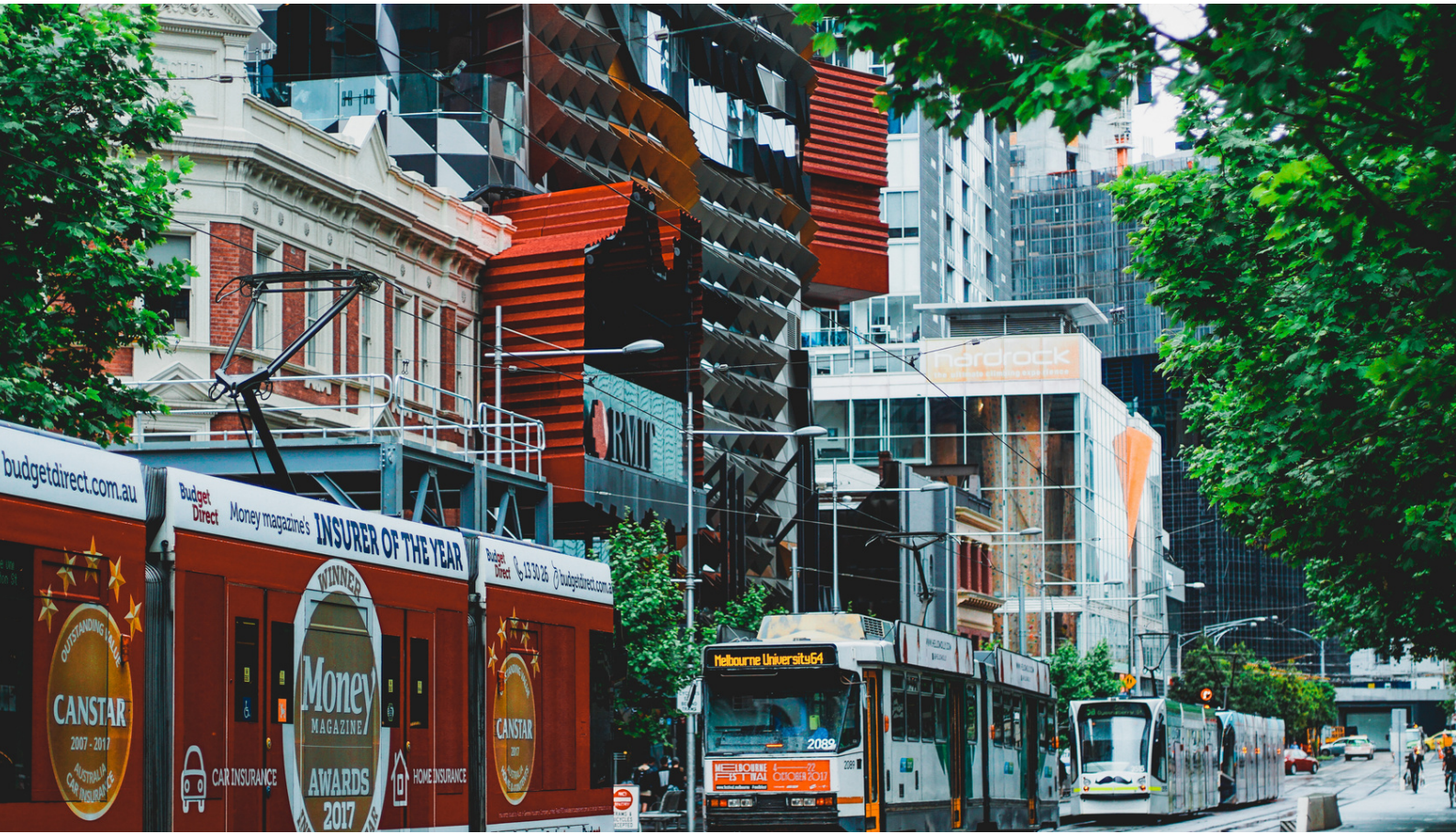
Our final panel considers questions relating to data and human control and oversight over automated systems. Maggie Walter addresses the considerable risks of AI for Indigenous peoples, and the potential collective benefits which may flow from the consolidation of Indigenous data sovereignty.

Leanne Wiseman considers the erosion of human ownership of machines, taking the example of smart cars as a case in point. Finally, Jake Goldenfein examines the shaky assumptions inherent in much of our thinking about human oversight of AI, particularly the conception of the 'human in the loop'.

Distinguished Professor Julian Thomas FAHA
Director, ARC Centre of Excellence for Automated Decision-Making and Society
RMIT University.

Distinguished Professor Jean Burgess FAHA
Associate Director, ARC Centre of Excellence for Automated Decision-Making and Society
Queensland University of Technology.

Photo by Shaun Low on Unsplash



Wednesday 15 November

2023 Annual Academy Lecture

5.30am - 7.30pm
G06 Theatre, Elisabeth Murdoch Building
University of Melbourne

Each year, a Fellow is invited by Council to deliver a lecture on their latest research. The series also features a lecture by each Academy President during their term in office. The Academy Lecture is a rich display of the breadth and depth of scholarship in the humanities and the impact and imaginative power of this work.

The lecture will be followed by a reception.

How should we conceptualise the human in an Anthropocene world?

Speaker: Emeritus Professor Lesley Head FASSA FAHA.
Chair: Inga Davis, Executive Director, Australian Academy of the Humanities.

The Anthropocene is understood to be a new geological epoch in which human activities dominate earth surface processes. If the Anthropocene is defined by the activities and impacts of people, it is paradoxically also a period that may shortly be out of human control due to rapid, unpredictable and non-linear changes. Climate change threatens many aspects of social and economic life as we know it.

The humanities have spent decades dismantling essentialised conceptualisations of the human, so why are they so persistent? The free-standing Enlightenment subject, the triumphalist unity of the human spirit, the exceptionalist pinnacle of evolution: these framings have always been problematic and are part of the hubris that got us to the present moment.

Part of the urgent work required is to reimagine ourselves in relation to the world. The onus continues to be on the humanities to lead this task, and Australia is a place from which to make distinctive contributions. In this lecture I distil a conceptualisation of the human as contingent, relational and differentiated. I ask, who is this we, the anthropos, and who must we become?

Emeritus Professor Lesley Head FASSA FAHA
President of the Australian Academy of the Humanities

Lesley Head FASSA FAHA was elected to Fellowship in the Academy in 2004, taking up the role of President in November 2020. Lesley is the Redmond Barry Distinguished Professor Emeritus at the University of Melbourne. Prior to this she held an ARC Australian Laureate Fellowship at the University Wollongong from 2009-14. Her research focusses on human interactions with the Australian environment, past and present, and on the cultural dimensions of environmental issues including climate change.

Lesley was awarded the Vega Medal of the Swedish Society for Anthropology and Geography (2015). Her recent publications include *Hope and Grief in the Anthropocene: reconceptualising human-nature relations* (2016) and *Plants: past, present and future* (2022) co-edited with Zena Cumpston and Michael-Shawn Fletcher.

Thursday 16 November

Introduction and welcome

9.00am - 9.30am
Kaleide Theatre RMIT University

Welcome to Country

Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation.

Welcome from the Academy

Emeritus Professor Lesley Head FASSA FAHA
President of the Australian Academy of the Humanities.

Welcome from Principal Sponsor

Professor Calum Drummond AO
Deputy Vice-Chancellor Research and Innovation & Vice President RMIT University.

Professor Calum Drummond is RMIT Deputy Vice-Chancellor Research and Innovation and a Vice President. He is also an active research professor and has published over 250 articles and patents in the area of advanced materials. He has a PhD and DSc from the University of Melbourne.

Professor Calum Drummond joined RMIT University in 2014 from CSIRO where he was Group Executive for Manufacturing, Materials and Minerals (1300 R&D staff). Earlier, he was Chief of CSIRO Materials Science and Engineering (850 R&D staff). He was the inaugural Vice President Research at CAP-XX, initially an Intel portfolio company that was designated by the World Economic Forum as a Global Technology Pioneer.

Welcome from the Convenors

Professor Jean Burgess FAHA is Associate Director of the ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S) where she is the co-leader of the Data program, and convenor of the QUT node.

She is also a current member of the ARC College of Experts and a Distinguished Professor of Digital Media in the QUT Digital Media Research Centre (DMRC) where she was founding Director from 2015-2020.

Jean's research focuses on the social implications of digital media technologies, platforms, and cultures, as well as new and innovative digital methods for studying them. She is the author or editor of six books, the latest of which is *Twitter – A Biography* (with Nancy Baym, New York University Press, 2020).

Professor Julian Thomas FAHA is Director of the ADM+S Centre and a Distinguished Professor in the School of Media and Communication at RMIT University.

Prior to the commencement of the ADM+S Centre, he was Director of RMIT's Social Change research platform. He has written widely about the contemporary social and cultural histories of new communications technologies.

Julian is Chairperson of the Australian Communications Consumers Action Network (ACCAN), and an Advisory Board member of Humanitech.

Thursday 16 November

Session one: Keynote conversation
Between humans & machines: old questions, new challenges

9.30am - 11.00am | Kaleide Theatre RMIT University

Speakers

Dr Melissa Gregg
Visiting Professor RMIT University
Advisory Board Member ADM+S

Melissa Gregg is an internationally recognised research pioneer with deep technical expertise in user experience, sustainability, silicon and platform architecture and workplace transformation.

Melissa is a consultant on sustainable and responsible technology design and an International Advisory Board Member for the ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S). She is also a visiting Professor at RMIT focusing on accelerating research and Asia-Pacific partnerships on electronics repair, reuse and circular economy, in addition to training and consulting on Sustainable and Responsible AI.

For the past decade, Melissa has led User Experience Research in the Client Computing Group at Intel.

Malavika Jayaram
Executive Director
Digital Asia Hub

Malavika Jayaram is the Executive Director of the Digital Asia Hub, an independent, non-profit internet and society research think tank based out of Hong Kong with a regional focus.

Malavika is also a Faculty Associate at the Berkman Klein Center for Internet and Society at Harvard University, where she was formerly a Fellow in residence.

In a previous life, as a practising technology lawyer, Malavika was an Associate at Allen & Overy, London, and was Vice President and Technology Counsel at Citigroup EMEA. Her activism around biometric identifiers, data privacy, and inequality in India and the majority world led her to pivot towards civil society and academia.

Dr Lyndon Ormond-Parker
Principal Research Fellow
Digital Inclusion and Engagement in Indigenous Communities

Lyndon Ormond-Parker is an Aboriginal man of Alyawarr descent from the Barkly Tableland region of the Northern Territory.

He is the Principal Research Fellow Digital Inclusion and Engagement in Indigenous Communities with the ARC Centre of Excellence for Automated Decision-Making and Society RMIT University. He is also an Australian Research Council Fellow in the Centre for Heritage and Museum Studies of the Australian National University.

Ormond-Parker holds appointments as Deputy Chair of the First Nations Digital Inclusion Advisory Group, Chair of the Indigenous Connections Committee of the National Film and Sound Archive, Co-Chair of the Indigenous Heritage Program ICOMOS GA 2023 Scientific Symposium and member of Advisory Committee for Indigenous Repatriation.

Chair
Distinguished Professor Julian Thomas FAHA.
Full biography on page 7.

Thursday 16 November

Session two:
Automating public culture: creators, institutions, audiences

11.30am - 12.50pm | Kaleide Theatre RMIT University

Creativity and cultural labour practices have long been considered resistant to automation – how should the Galleries, Libraries, Archives and Museum (GLAM) sector respond?

Creativity and cultural labour practices have long been considered resistant to automation.

Our sector – though often underpaid and undervalued – took comfort in this, luxuriating in the knowledge that our work was profoundly and unequivocally human – even when it is (almost always) the product of the relation between human and tool.

But the rise of generative artificial intelligence, machine learning, and large language models resulting in the recent and rapid public take up of tools and interfaces from Chat GPT (text) to MusicLM (audio), and Stable Diffusion and Midjourney (images)—call these claims into question.

This conversation considers what it means to create, distribute, and consume under these conditions when digital skills, capabilities, and institutional support are unevenly distributed. What capabilities do creators, institutions, and audiences need to develop, and how might we do this development in public

Speakers

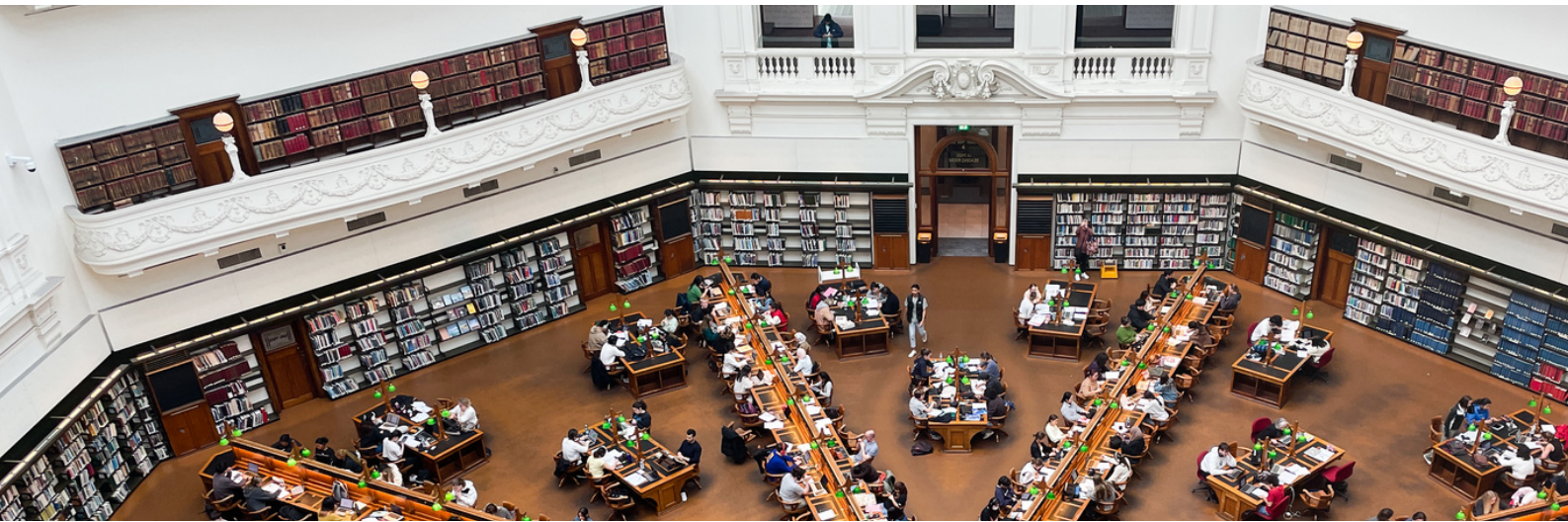
Seb Chan
Director & CEO
ACMI

Seb Chan is Director & CEO at ACMI in Melbourne since August 2022.

Prior to ACMI, Seb led the digital renewal and transformation of the Cooper Hewitt Smithsonian Design Museum in New York (2011–2015) and the Powerhouse Museum's pioneering work in open access, mass collaboration and digital experience during the 2000s.

His work has won awards internationally in the museum, media and design spheres. Seb is Adjunct Professor, School of Media and Communications, in the College of Design and Social Context at RMIT, an international advisory board member of Art Science Museum (Singapore) and board member of the National Communications Museum (Melbourne).

State Library of Victoria | Photo by Sasha Pritchard



Thursday 16 November

Session two:
Automating public culture: Creators, institutions, audiences

11.30am - 12.50pm | Kaleide Theatre RMIT University

Dr Joel Stern
Vice-Chancellor's Postdoctoral Fellow
RMIT University

Informed by a background in experimental music and sonic art, Stern's work focuses on how practices of sound and listening inform and shape our contemporary worlds.

In addition to research, writing, and artworks, Machine Listening have produced an expanded curriculum, conceived as an experiment in collective learning and community formation.

Between 2013 and 2022 Stern was Artistic Director of pioneering Australian organisation Liquid Architecture, helping establish it as one of the worlds leading forums for sonic art

Kimberlee Weatherall
Professor of Law
University of Sydney

Kimberlee Weatherall is a Professor of Law at the University of Sydney focusing on the regulation of technology and intellectual property law, and a Chief Investigator with the ARC Centre of Excellence for Automated Decision-Making and Society.

She is a Fellow at the Gradient Institute, a research institute developing ethical AI. She has been researching, speaking, and writing about the relationships between creativity, copyright and technology since the early 2000s, through waves of digitisation, networked technology and now machine learning and artificial intelligence.

Chair
Dr Indigo Holcombe-James
Strategic Research Lead
ACMI

At ACMI, Dr Holcombe-James coordinates research projects, commissions market research, and conducts the in-house visitor research that ensures audiences are at the centre of the museum.

Prior to joining ACMI, Indigo was a Research Fellow at the ARC Centre of Excellence for Automated Decision-Making and Society.

Her research focussed on digital transformation and inequality in cultural and creative institutions and industries, working with more than 100 cultural institutions, from remote First Nations art centres to regional community museums, artist-run initiatives, public galleries, and state and national institutions.

In 2022, Indigo won the RMIT School of Media and Communication Dean's Ed Montano Award for Industry Engagement.

Thursday 16 November

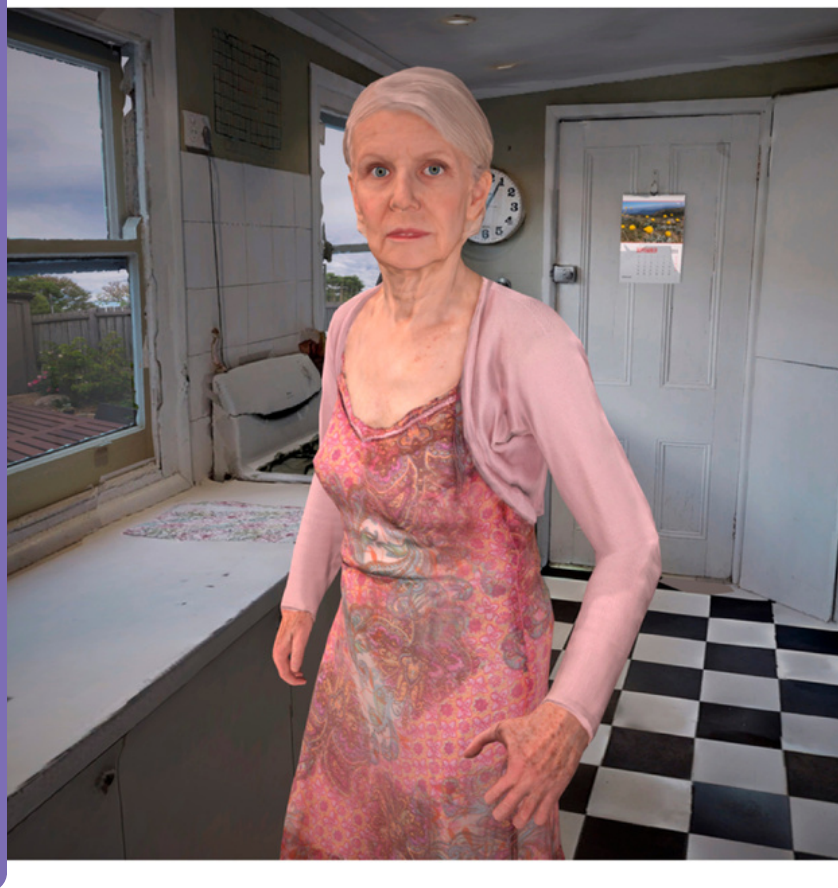
Introduction: Meet Viv
The AI character helping to shape dementia care

12.50pm - 1.00pm | Kaleide Theatre Foyer RMIT University

Drop by for a chat with Viv, an artificially intelligent (AI) character, co-created with women living with dementia.

Viv is an authority on the experience of dementia diagnosis and living with hallucinations. Developed by the ARC Laureate Felt Experience & Empathy Lab [fEEL], Viv is one of a suite of digital companion characters, distinctive for being co-created by or with people with lived experience, using their words, insights and experiences to shape personas and discourse.

Jill Bennett will discuss the evolution and applications of these characters and the value of combining 'bottom up' lived experience-led research with the use of AI character engines designed for gaming contexts.



Presenter

Jill Bennett FAHA is Scientia Professor and Australian Research Council Laureate Fellow at the University of New South Wales.

She is Founding Director of The Big Anxiety festival, the Big Anxiety Research Centre and the ARC-funded Felt Experience & Empathy Lab (fEEL Lab) at UNSW.

Jill's immersive media and public engagement projects explore the role of creative technology and trauma-informed design in supporting mental and emotional health with a particular focus on lived experiences of trauma.

Her Laureate project has advanced the area of Experience Visualisation using virtual, augmented and mixed reality platforms to develop tools for mental health and suicide prevention. Her most recent book is *The Big Anxiety: Taking Care of Mental Health in Time of Crisis* (Bloomsbury, 2022).

Thursday 16 November

Session three:
Automating life & death

2.00pm - 3.00pm | Kaleide Theatre RMIT University

From the study of automata in Greco-Roman antiquity to fictional AI societies and the emergence of virtual autopsies in our own time, Tatiana Bur, Roslynn Haynes, Marc Trabsky and Elizabeth Stephens explore automation in life and death.

Speakers

Dr Tatiana Bur
Lecturer in Classics at the Australian National University

Humans, gods and machines in Greco-Roman antiquity

Ideas of AI and automation have held cultural traction since Greek antiquity. Ancient myths from as far back as Homer's Iliad speak of self-moving objects with minds of their own. Some of these are made by humans, others are divinely manufactured. Famously, Classical Athenian tragedy puts the god on a machine via a device known as the deus ex machina. The ancient philosopher Aristotle toys with the idea of self-animated objects replacing slaves. By the fertile intellectual climate of the Hellenistic world, the discipline of mechanics takes off and entire texts are devoted to the construction of automata (self-moving machines).

The Greco-Roman world configures 'the human', 'the machine' and 'the divine' in fascinating, culturally specific ways which serve to unveil the complex cultural life of ancient automation technologies in situ.

Equally, we might also like to ask where the cultures of the ancient Greeks and the Romans fit in a larger, diachronic history of AI and automation. Staying alive to the twin dangers of teleology and anachronism, ancient automata are useful to rethink notions of 'innovation' and 'progress', both ancient and modern.

Dr Tatiana Bur is a Lecturer in Classics at the Australian National University. Prior to this, she was the Moses and Mary Finley Research Fellow at Darwin College, University of Cambridge. Tatiana is a graduate of the University of Sydney where she completed her undergraduate studies and MPhil. She then undertook her PhD at Trinity College, University of Cambridge for which she received the Hare Prize for the best thesis in Classics.

Tatiana is an ancient Greek cultural historian broadly conceived with interests in ancient religion, science, performance, play, miracles, and spectacles. Her speciality lies in the intersection of ancient Greek religion and ancient mechanics, the topic of her forthcoming monograph *Technologies of the Marvellous in Ancient Greek Religion* (CUP).

Adjunct Professor Roslynn Haynes FAHA
Adjunct Associate Professor
UNSW

Interrogating AI societies through fiction: What do AI machines reveal about humanity?

Although the AI "characters" of these narratives are far more complex than any machines yet devised, they present thought experiments for assessing the trajectory of current developments in AI, especially Artificial General Intelligence, and their potential effects on personal and social relationships.

Thursday 16 November

Session three:
Automating life & death

2.00pm - 3.00pm | Kaleide Theatre RMIT University

With some recent exceptions, scientists have promoted AI as ushering in a utopia characterised by freedom from dangerous and repetitive tasks, immense number-crunching capacity, instant access to information, scientific and medical breakthroughs, and military superiority. Yet novelists have most frequently envisaged a dystopia of social inequality and alienation, with potential for domination by AI. As Alan Turing famously said, "If a machine can think, it might think more intelligently than we do, and then where should we be?" If humans are not to become outclassed and dispensable, machine-human co-creation is seen as a way forward.

Increasingly, fictional AI narratives focus on a later generation of machines possessing Artificial General Intelligence and consciousness, and the challenge they pose to theories of mind, intelligence, emotions, and human identity.

How, if at all, are we different from such AI machines? Will machines usurp the caring, nurturing, creative and teaching roles we have considered uniquely human, as they have already appropriated mechanical and repetitive tasks and scientific modelling? Are AI machines more "ethical" than humans? If machines can learn to simulate emotions, what does this suggest about human behaviour? The more machines appear like us, the more they evoke the uncanny valley response.

Novelists have also explored human accountability for machines, including the threat that humans pose to AI machines by denying them agency, freedom and respect, and inducing "machine sadness" at human depravity.

Roslynn Haynes FAHA is Adjunct Associate Professor in the School of the Arts and Media UNSW. As a graduate in both biochemical sciences and the humanities she is most interested in cross-disciplinary research, and is internationally recognised for her contributions to the field of science and literature over many decades.

She has published five major books in the field as well as four monographs on landscape and literature, sixteen chapters in books and twenty-four refereed journal articles on science and society in literature. She is currently researching and writing a monograph exploring the social, personal and philosophical consequences of AI as depicted in fiction and film.

Dr Marc Trabsky
Associate Professor in Law
LaTrobe University

Virtual autopsies: machine vision in death investigations

Forensic imaging technology purports to offer the ideal of a virtual autopsy. Post-mortem computed tomography (CT) comprises both a mechanical instrument and a computational technique that virtualises the interiority of the corpse by dissembling it into an undefined set of slices and reassembling it in a three-dimensional visualisation.

In transmogrifying the materiality of organs, tissues and bones onto multi-planar reconstructions, the technology offers judicial observers the allure of seeing 'corporeal evidence' with their own eyes. Yet what they see can only be revealed through an assemblage of machines, techniques and images, and the inter-subjectivity of the dead body, medico-legal expert, and the judicial observer.

Thursday 16 November

Session three:
Automating life & death

2.00pm - 3.00pm | Kaleide Theatre RMIT University

In this presentation Dr Trabsky will discuss the scope of his Australian Research Council DECRA project on 'Socio-Legal Implications of Virtual Autopsies in Coronial Investigations', which examines how forensic imaging technology impacts death investigations in Australia. CT problematises the 'mechanical objectivity' of the forensic gaze by embedding an automated machine in a medico-legal investigation into sudden, unnatural, violent and accidental deaths. It makes demands on coroners, pathologists, prosecutors, and lawyers to acquire new skills in deciphering the meaning of pixelated shadows and interpreting CT scans as evidence of death causation. If the use of post-mortem CT is to be expanded in Australia, then it is critical to understand the human-machine relations that are created through the innovative turn towards virtual autopsies.

Dr Marc Trabsky is an Associate Professor in Law, and an Australian Research Council DECRA Fellow at La Trobe University. He combines critical theory, socio-legal research, and science and technology studies to explore the interrelations between law, technology, and death. Marc has written *Law and the Dead: Technology, Relations and Institutions* (Routledge, 2019) and *Death: New Trajectories in Law* (Routledge, 2023). He is currently co-editing the *Routledge Handbook of Law and Death* (Routledge, 2024, forthcoming).

Marc has been a Visiting Scholar at the University of Bath, University of Kent, University of Sydney, and the University of Technology Sydney, and he is an Affiliate Member of the ARC Centre of Excellence for Automated Decision-Making and Society. In 2023, he was a Liberty Fellow in the School of Law, University of Leeds.

Elizabeth Stephens
Associate Professor in Cultural Studies
University of Queensland

"Artificial Mothers" and the strange history of incubator baby shows

When neo-natal incubators were first developed at the end of the 1800s, they were widely referred to as "artificial mothers" or "automatic nurses" in both the medical and popular press. The first incubators were promoted by being put on public display at World's Fairs and other large industrial exhibitions, where they were demonstrated with living premature babies inside. At a time when mortality rates for premature babies were as high as 80 or 90%, early incubators used in exhibitory contexts reported survival rates of nearly 80%. They were amongst the most celebrated and popular exhibitions at the turn of the last century.

This presentation traces the history of public exhibitions of baby incubators, focusing on its most long-running example, staged at the Coney Island Amusement Park between 1904 and 1943. For the first half of the twentieth century, this sideshow at Coney Island was one of the only places in the USA that provided access to neo-natal incubators, and it did so free of charge. It also reported a survival rate exponentially higher than that of any hospital at the time. While incubator baby shows may now occupy a marginal position in the histories of science, medicine and technology, then, they also have much to tell us about the intersections between science, sentiment and spectacle as an under-recognised driver of these histories.

Thursday 16 November

Session two:
Automating life and death

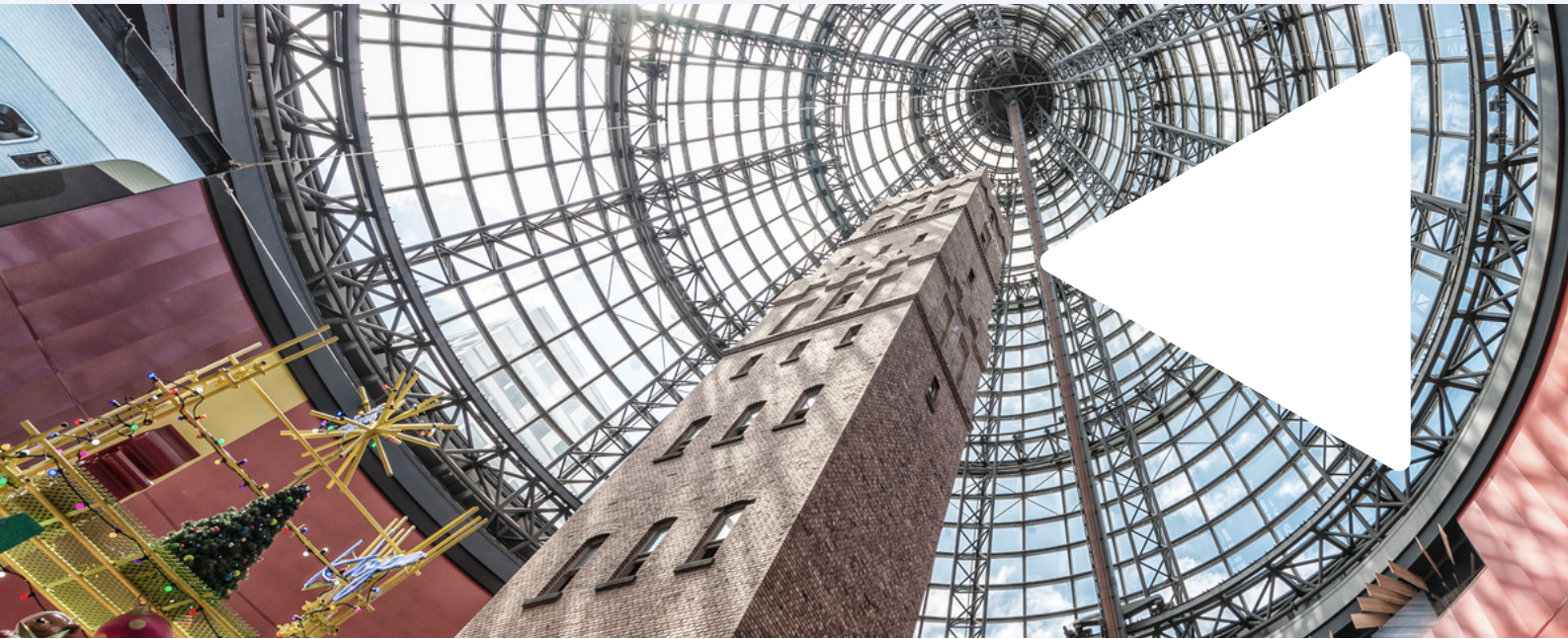
2.00pm - 3.00pm | Kaleide Theatre RMIT University

Elizabeth Stephens in an Associate Professor in Cultural Studies at the University of Queensland. She was previously an Australian Research Council Future Fellow in the Institute for Advanced Studies in the Humanities at UQ (2017-2021).

She was also the Associate Dean Research at Southern Cross University (2014-2017), and an ARC Australian Research Fellow in the Centre for the History of European Discourses (UQ, 2010-2014). Elizabeth is author of over 100 publications, including three monographs: *A Critical Genealogy of Normality* (University of Chicago Press, 2017), co-authored with Peter Cryle; *Anatomy as Spectacle: Public Exhibitions of the Body from 1700 to the Present* (Liverpool University Press, 2011), and *Queer Writing: Homoeroticism in Jean Genet's Fiction* (Palgrave 2009). She is the founder and convenor of the Australasian Health and Medical Humanities Network, and the Immediate Past President of the Cultural Studies Association of Australasia.

Chair
Emeritus Professor
Joanne Tompkins FAHA

Joanne Tompkins worked at the University of Queensland and at the Australian Research Council before retiring to consult on research and research management to the humanities sector. Her recent research develops virtual reality models of theatres that no longer exist to explore the performance parameters of the past. She is a founder of AusStage, the research resource for the performing arts, and is involved in several digital humanities projects. She is also a member of the Academy's Council.



Thursday 16 November

2023 Hancock Lecture
Artificial figures: gender-in-the-making in algorithmic culture

4.00pm - 5.00pm | Kaleide Theatre RMIT University

Digital assistants with feminised voices, deceptive female robots, all-male research groups: gender forms a fundamental part of how we imagine the systems, fields, and figures we call 'artificial intelligence' (AI). While gender unquestionably shapes and structures scientific objects and knowledge, rarely do we consider how these phenomena have the capacity to shape gender in return.

In these contexts, gender is often reduced to a predetermined, preformed category; already made rather than something that is constituted through the practice of science or technology making itself.

In our 2023 Hancock lecture, Dr Thao Phan will explore how, in the making of AI systems and technologies, gender too is being made. She'll examine key figures in AI's cultural history — from foundational figures like Alan Turing and the Turing Test to cultural and commercial figures like Apple's Siri and Amazon Echo — and will demonstrate the role the humanities can play in understanding our past and reshaping our technological futures.

Dr Phan will also outline the critical contribution fields like feminist science and technology studies (feminist STS) can make to public debates on AI and beyond.

Her lecture centres questions of power, politics, and identity in today's algorithmic culture. It asks: how are more-than-human systems reconfiguring the terms of all-too-human categories like gender, race, and class? How does gender influence how new technologies are made intelligible, mediating the expectations of a user, consumer, or audience? And finally, how might these encounters with AI reveal the artifice of gender as a system that is tied to the realm of the artificial as much as it is to nature and what we call 'the natural'?

Dr Thao Phan
Monash University

Dr Thao Phan is a feminist science and technology studies (STS) researcher who specialises in the study of gender and race in algorithmic culture. She is a Research Fellow in the ARC Centre of Excellence for Automated Decision-Making and Society and the Emerging Technologies Research Lab at Monash University. She has published on topics including the aesthetics of digital voice assistants, big-data-driven techniques of racial classification, and the commercial capture of AI ethics research. Her award-winning writing has appeared in journals such as *Big Data & Society, Catalyst: Feminism, Theory, Technosocience, Science as Culture, Cultural Studies*, and more.

She is a member of the Australian Academy of Science's National Committee for the History and Philosophy of Science and is the co-founder of AusSTS—Australia's largest network of STS scholars.

Chair
Emeritus Professor Lesley Head FASSA FAHA
President of the Australian Academy of the Humanities

Thursday 16 November

Fellows Signing and Academy Dinner

5.45pm - 9.30pm | State Library of Victoria

Welcome

Professor Alec Cameron
Vice-Chancellor & President
RMIT University

Professor Alec Cameron has been Vice-Chancellor and President of RMIT University since January 2022.

Prior to joining RMIT, he was Vice-Chancellor and Chief Executive at Aston University in the UK since 2016.

Professor Cameron is a Rhodes Scholar (1986) with a Doctor of Philosophy degree from Oxford in Robotics (1989). He is also a graduate of the University of Sydney with Bachelors' degrees in Science and Electrical Engineering.

His early career involved executive roles at Sun Microsystems and Telstra, and he was the inaugural Dean of the Australian School of Business, Deputy Vice-Chancellor (Resources and Infrastructure) University of New South Wales (2003-12) and Deputy Vice-Chancellor (Education), University of Western Australia (2013-16). In 2022, Alec was appointed Director of AARNET, Australia's national research and education network.

Dinner Lecture

Distinguished Professor Genevieve Bell AO FSTE FAHA
Australian National University

Distinguished Professor Genevieve Bell AO FTSE FAHA is a renowned anthropologist, technologist, and futurist. Genevieve completed her PhD in cultural anthropology at Stanford University in 1998 and is best known for her work at the intersection of cultural practice and technology development.

She is currently the Director of the School of Cybernetics and Florence Violet McKenzie Chair at the Australian National University (ANU) and a Vice President and Senior Fellow in Intel Labs at Intel Corporation.

Genevieve joined the ANU in 2017 after spending 18 years in Silicon Valley guiding Intel's product development and social science and user experience research capabilities. Genevieve was appointed the inaugural Director of the 3A Institute, co-founded by the ANU and CSIRO's Data61. The Institute's mission is to establish a new branch of engineering to responsibly and sustainably scale AI-enabled cyber-physical systems.

In 2021, she was appointed Director of the new School of Cybernetics at the ANU, which in addition to housing the 3A Institute, is focused on building capacity in Systems and Design.

Friday 17 November

Session four: Keynote lecture
Human priorities, machine decisions?

9.00am - 10.00am | Kaleide Theatre RMIT University

The keynote lecture by Dr Erica Thompson examines the intersection of humanities, machines and mathematics. Erica prefers to reduce her carbon footprint by not flying to conferences. Instead, she will join the Symposium via a live video link.

Speaker

Dr Erica Thompson
Associate Professor
University College London

One way of interacting with possible uncertain futures is through the use of mathematical models to construct and visualise different kinds of outcomes and counterfactuals.

Dr Erica Thompson will discuss the uses of mathematical models for decision support in contexts including pandemic response and climate change adaptation, emphasising the social value judgements that are inherent in model construction, calibration, and use. Erica will then look at how increasingly mathematised approaches to decision-making obscure these value judgements, and consider the implications for automated decision-making, autonomous systems, and "artificial intelligence". She will outline her view on the limitations to the use of AI and more broadly the proper role of mathematical modelling in support of a future that we wish to have some agency over and not simply predict.

Dr Erica Thompson is an Associate Professor of Modelling for Decision Making at the University College London's Department of Science, Technology, Engineering and Public Policy. She is also a Fellow of the London Mathematical Laboratory and a Visiting Senior Fellow at the LSE Data Science Institute, and has recently published a book about the uses and limitations of mathematical models for decision-making: *Escape From Model Land* (Basic Books, 2022).

Erica's interdisciplinary programme of research encompasses ethical and methodological questions about the development and use of models in a range of policy-relevant contexts including climate change, public health, and economics. Who decides what kind of models to make? What are the consequences of those decisions, and how can we ensure that we are making supportable inferences about the real world, from our model outputs? In short, how can we do good science with models?

More broadly, her research interests focus on realistic evaluation of model-derived information for decision-making, communication of the inherent uncertainty, and improving robustness and usability of information that is relevant for real-world decisions. She has worked in collaboration with a variety of external organisations including improving the use of forecast information for anticipatory humanitarian action before a crisis hits and providing robust climate science information for the Global Calculator project. She has a current interest in illuminating the value judgements within models and model-informed decision procedures, especially relevant when decisions are delegated to machines.

Friday 17 November

Session five:
Machine memories, methods & histories

10.00am - 11.30am | Kaleide Theatre RMIT University

Three eminent scholars offer a range of historically-informed reflections upon the relationship between human and machine intelligence.

Speakers

Emeritus Professor Richard Yeo FAHA
Griffith University

'Vannevar Bush's "memex" (1945), a mechanical aid to the mind: precursors and contemporaries'

In 1945 the American engineer, Vannevar Bush (1890-1974), published an article about a device relying on photocells and microfilm to aid memory and thinking. This 'memex' (perhaps a contraction of 'memory extended') was 'mechanized so that it may be consulted with exceeding speed and flexibility', thus serving as 'an enlarged intimate supplement' to individual memory. Memex was never built, but its blueprint can (with caveats) be seen as foreshadowing hypertext links; more assuredly, Bush's reflections on how an individual might use such a 'machine' anticipate the 'man-machine interface' concept (replaced by 'human-machine interface' from the 1980s).

Like many observers stretching back to the Renaissance, Bush identified information overload as a complaint to be addressed by external supports for the mind such as notes on slips of paper or in notebooks. In c.1640, Thomas Harrison, an Oxford graduate and cleric, proposed the 'Ark of Studies', a large cabinet holding small slips of paper (before 'index cards') on hooks labelled with topical headings and arranged on wooden rods in alphabetical order.

As well as storing information, both inventions were intended to cultivate particular cognitive functions: Harrison believed his 'Ark' would distil fundamental units of knowledge, enabling novel combinations; Bush designed 'memex' to capture the user's association of ideas and preserve them in permanent 'trails' that could be automatically retrieved. Both examples raise the question of whether the owner controlled the machine or was trained by it. By the early 1960s, Joseph Licklider (1915-1990) and Douglas Engelbart (1925-2013), two pioneers of computer software, went beyond Bush's work in imagining the interactions between 'between humans and machines'.

Emeritus Professor Richard Yeo FAHA is an historian of science.

He is Emeritus Professor at Griffith University, Brisbane, Australia. He has written on European (especially British) intellectual history and the history of science in the period 1600–1900.

His books include Defining Science: *William Whewell, Natural Knowledge and Public Debate in early Victorian Britain* (Cambridge, 1993); *Encyclopaedic Visions: Scientific Dictionaries and Enlightenment Culture* (Cambridge, 2001); and *Notebooks, English Virtuosi, and Early Modern Science* (The University of Chicago Press, 2014). He recently coedited *Towards a history of the questionnaire*, a special issue of *Intellectual History Review*, 32, no. 3 (2022).

Friday 17 November

Session five:
Machine memories, methods & histories

10.00am - 11.30am | Kaleide Theatre RMIT University

Professor Marnie Hughes-Warrington AO
University of South Australia

Machine historians and the limits of hisotry making

Advances in artificial intelligence prompt us to consider whether all historians are human. If they are not all human, then thought will be needed to outline the criteria for determining whether an historian is good at their work, let alone responsible for it.

Comparing the work of award-winning historians and machines, Professor Hughes-Warrington explore the role of questions in the logic of history making and show how historians might contribute to the development of historiographical frameworks or ontologies for machine historians. Looking at recent winners of the Wolfson History Prize, she will show that book histories tend to end with third person plural questions to readers, whereas journal articles tend more commonly to start with questions. She also highlights how poorly machines perform with novel questions, and how few members of the public think that new questions prompt new histories.

Marnie Hughes-Warrington AO is Standing Acting Vice Chancellor and Deputy Vice Chancellor Research and Enterprise at the University of South Australia. She is Professor of History theory at the University of South Australia and Adjunct Professor of History at the Australian National University. Her work across philosophy and history has advanced the recognition of history making across the globe, including global recognition of Australian Aboriginal historiographies.

She has authored or edited ten books, with the latest being *History from Loss* (2023, edited with Daniel Woolf) and *The Routledge Companion to History and the Moving Image* (2023, edited with Kim Nelson and Mia Treacey). Her current book project is Machine Historians, which explores the logic which shapes how humans and artificial agents make histories, and reframes artificial intelligence as an historical discipline.

Professor Gerard Goggin FAHA
University of Sydney

Dishuman-machine communication: histories and imaginaries of assistive and inclusive technologies

Disability is an important area that speaks to important facets of the relationships between human and machines-and how we frame automation and AI. There is a long, largely unacknowledged history of human–machine communication when it comes to people with disabilities, often cordoned off from prominent mainstream areas of technology innovation and development.

Yet such histories and accounts of disability are highly influential in contemporary sociotechnical imaginaries. In this talk, Professor Goggin will explore the idea that human–machine communication should, as UK disability scholars Goodley & Runswick-Cole suggest elsewhere, "always involve thinking about disability".

In particular, as he will illustrate, our considerations of humans and machine have a great deal to gain from revisionist work on the histories of assistive and inclusive technologies. This work provides us with fresh perspectives that move from seeing disability as a "special" or "exceptional" case to a complex, relational, material category that helps us rethink the general relationships among humans and machines, and other technology.

Friday 17 November

Session five:
Machine memories, methods & histories

10.00am - 11.30am | Kaleide Theatre RMIT University

Professor Gerard Goggin FAHA is Professor of Media and Communications at the University of Sydney.

He is a founding editor of the journal Internet Histories and co-editor of *Routledge Companion to Global Internet Histories* (2017) and *Oral Histories of the Internet and Web* (2023). Gerard has a longstanding interest in disability, media and rights– with key books including *Digital Disability* (2003) and *Routledge Companion to Disability and Media* (2020).

With Kuansong Victor Zhuang, he is working on a book project on disability, sociotechnical imaginaries, and politics.

Chair
Professor Victoria Haskins FAHA

Victoria Haskins is a Professor of History at the University of Newcastle, Australia, and received her PhD from the University of Sydney. She was elected to the Academy in 2020 and to the Academy's Council in 2023. Victoria works on gender and colonisation, and has published widely on Indigenous domestic labour history, in particular, and cross-cultural Indigenous colonial relations more generally. Her publications include *One Bright Spot* (Palgrave, 2005), *Colonialism and Male Domestic Service across the Asia Pacific* (Bloomsbury, 2018), with Julia Martinez, Claire Lowrie and Frances Steel; and *Colonization and Domestic Service* (Routledge 2014) with Claire Lowrie. Victoria is lead series editor for the Bloomsbury Academic Series, *Empire's Other Histories*.

Friday 17 November

HASS and Indigenous Research Data Commons

12.00 - 12.10pm | Kaleide Theatre RMIT University

In 2020 the HASS and Indigenous Research Data Commons (HASS & IRDC) was announced as a first step toward developing a more comprehensive digital HASS and Indigenous research capability. Led by the Australian Research Data Commons (ARDC), it aims to create the founding blocks of a national research infrastructure that serves key domains in HASS and Indigenous research and reaches out both to communities where the data originates and research communities who work with data.

Work began with the identification of four core projects to serve as a base for the future Research Data Commons. This session will begin with an update on the status of these projects and the work to further integrate them into a coherent Humanities, Arts, Social Sciences and Indigenous research data commons.

Following the update on progress, we will look to the future direction of the HASS & IRDC, in line with a larger strategic transformation by the ARDC to deliver a set of integrated Research Data Commons and Challenges to better serve the needs of a major slice of the Australian Research sector through the development of Digital Research Infrastructure.

Jenny Fewster
Director of the Humanities, Arts, Social Sciences and Indigenous Research Data Commons at the ARDC

Jenny Fewster is the Director of the Humanities, Arts, Social Sciences and Indigenous Research Data Commons at the ARDC where she is working with key stakeholders to plan, manage and coordinate all activities relating to the HASS and Indigenous RDC initiative. She has a wealth of experience in the collection, management and dissemination of research and cultural heritage data and resources through digital humanities platforms, most recently as Executive Officer of AusStage.

Friday 17 November

Session six:
Rights & revolutions

12.10pm - 1.30pm | Kaleide Theatre RMIT University

This panel will consider what is gained and lost from artificial intelligence and new digital technologies, especially through the lens of Indigenous data sovereignty and issues of data access and ownership.

Distinguished Professor Emerita Maggie Walter FASSA
University of Tasmania

AI and Indigenous data sovereignty

Artificial intelligence is a rapidly growing, increasingly pervasive feature of societal functioning and, now, a part of Aboriginal and Torres Strait Islander People's everyday lives. Advocates highlight the benefits and economic value that AI innovation can bring. Yet, while AI technologies can produce positive outcomes the marginalised social, cultural and political location of Indigenous Peoples suggest we will not share equally in these. The considerable risks embedded in the ubiquity of AI i.e., bias, stigma and accountabilities are also unevenly distributed. In this presentation Professor Walter will discuss the likely uncharted negative consequences of AI for Indigenous Peoples and how Indigenous data sovereignty can mediate harmful outcome risks while providing pathways to collective benefits.

Maggie Walter FASSA is Palawa, a member of the Tasmanian Briggs family and Distinguished Professor of Sociology (Emerita) at the University of Tasmania.

Her scholarship challenges standard explanations for Indigenous inequality, with a focus on the sub-fields of Indigenous data, Indigenous methodologies and Indigenous Data Sovereignty.

In 2021, Maggie was appointed a Commissioner with the Victorian Yoorrook Justice Commission, Australia's first truth-telling body, which is inquiring into systemic injustices from colonisation to the present.

She is the author of six books and over a hundred peer-reviewed journal articles or chapters.

Professor Leanne Wiseman
Griffith University

What do we really own? The data erosion of ownership

Since the rise of embedded software in the many 'smart' devices and machines that we now use, there has been an important but hidden shift in the relationship that we, as machine owners and users, have with the manufacturers of our devices, and therefore the devices themselves. Intellectual property rights play a critical role here. In this paper, Professor Wiseman will discuss how cars have become a key example of the ways in which IP rights now control our capacity to repair, modify, transform, or reject the equipment we purchase. A myriad of complex data licences and controls are silently eroding our traditional ideas of ownership — and this is a problem that extends beyond cars and carmakers across the digital economy, to agricultural and industrial machinery, assistive technologies and medical devices.

Friday 17 November

Session six:
Rights & revolutions

12.10 - 1.30pm | Kaleide Theatre RMIT University

Leanne Wiseman is a Professor of Law at Griffith University, Brisbane, Australia and an Australian Research Council Future Fellow (2021-2025) and the Founder and Chair of the Australian Repair Network.

Leanne is an interdisciplinary scholar whose policy-relevant research, at the intersection between IP law, data, new digital technologies, and the contracts that that accompany them, is addressing critical questions about the role that Intellectual Property plays in hindering or enabling access to new technologies.

Her interdisciplinary research on the significant legal challenges associated with the adoption of digital technologies within agriculture and the challenges that data ownership and access issues are causing within a range of broader industries has been recognised as world leading. Her current research focusses on balancing Intellectual Property rights with genuine access to information. Her ARC Future Fellowship project, "Unlocking Digital Innovation: Intellectual Property and the Right to Repair" is examining the emerging challenges that our software-embedded machines, devices and equipment are creating for individuals and society. Leanne has a particular interest in examining the Right to Repair movement through an exploration of the international legal, regulatory and policy responses within the automotive, agricultural, consumer electronics, medical device and assistive technologies sectors.

Dr Jake Goldenfein
Chief Investigator
Melbourne University

Lost in the loop – who is the human of the human in the loop?

Human oversight is an intuitive idea for governing AI and automated decision-making. A human in the loop or a right to human review has become a common sight in ethical frameworks and regulatory proposals. But while this idea has been central in the design and operation of industrial control systems for decades, it has only recently been transplanted for automated decision-making.

In the domain of legal decision-making there is very little empirical research suggesting that human oversight generates better decision outcomes, and there are few standards to measure its effects. This means introducing human oversight for automated systems is risky and premised on unstable assumptions. This talk identifies the different anxieties produced by automation, and how, responding to different political and economic imperatives, the human is configured, reconfigured, and operationalised as an entity capable of exercising meaningful control.

Jake Goldenfein is a law and technology scholar at Melbourne Law School and an Chief Investigator in the ARC Centre of Excellence for Automated Decision-Making and Society.

His current work explores the ways law constructs the data economy, digital surveillance including facial recognition, and tools for governing automated decision-making like a 'human in the loop' and AI explanations.

Friday 17 November

Session six:
Rights and revolutions

12.10 - 1.30pm | Kaleide Theatre RMIT University

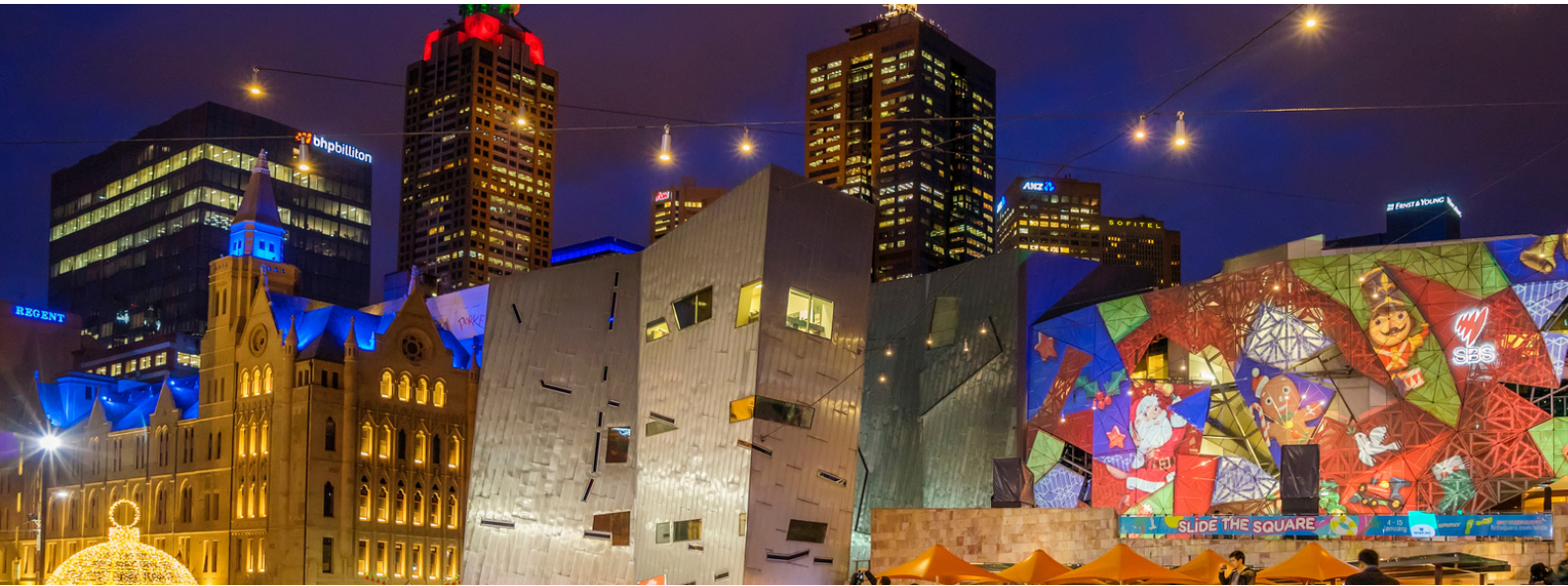
Chair
Professor Mark Andrejevic
FAHA

Mark Andrejevic researches the social, cultural, and political aspects of digital media technologies, with a particular focus on surveillance, monitoring, and social control. His work engages with the societal consequences of automated forms of social sorting, the spread of online disinformation, and emerging technologies for the collection and processing of personal information.

He is particularly concerned with the patterns of ownership and control that shape the development and functioning of the digital media economy, and the implications of these communication and information technologies for democratic values and commitments.

He has also studied the portrayal of surveillance in popular culture, and the relationship between the political economy of television and that of online media.

He speaks and reads French as a second language.



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