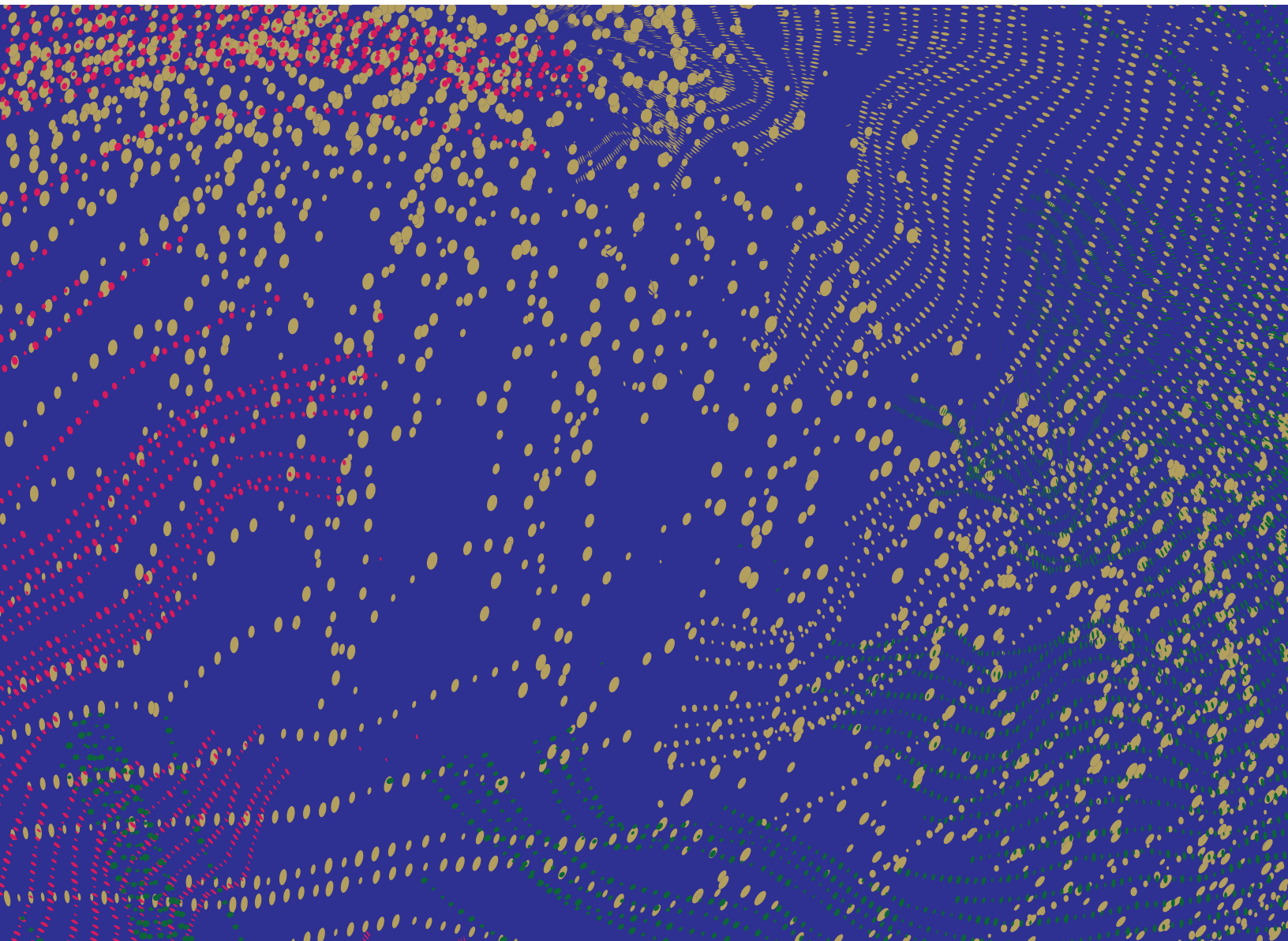
The World Humanities Report

Humanities Horizons: Perspectives from Australia

Australian Academy of Humanities



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List of Abbreviations

AAH	Australian Academy of the Humanities
ABS	Australian Bureau of Statistics
ACOLA	Australian Council of Learned Academies
AIATSIS	Australian Institute for Aboriginal and Torres Strait Islander Studies
ARC	Australian Research Council
CRC	Cooperative Research Centres
DESE	Department of Education, Skills and Employment (Commonwealth)
DFAT	Department of Foreign Affairs and Trade (Commonwealth)
DISER	Department of Industry, Science, Energy and Resources (Commonwealth)
EFTSL	Estimated Full Time Student Load
ERA	Excellence in Research for Australia
FoE	Field of Education
FoR	Field of Research
FTE	Full-Time Equivalent
GLAM	Galleries, Libraries, Archives, and Museums
HCA	Humanities and Creative Arts
HERDC	Higher Education Research Data Collection
JRG	Job-Ready Graduates
NCRIS	National Collaborative Research Infrastructure Strategy
SBE	Social, Behavioral, and Economic Sciences
SHAPE	Humanities, Arts, and Social Sciences
STEM	Science, Technology, Engineering, and Mathematics

Humanities Horizons: Perspectives from Australia

Australian Academy of Humanities

Introduction

The Australian Academy of the Humanities led the development of this report focused on Australia for the World Humanities Report, an international collaborative initiative, which seeks to provide insight into where and how the humanities are practiced around the globe and to offer a set of recommendations for the humanities in the twenty-first century.

Through our engagement with this important initiative, the Australian team sought to contribute to an evidence base and set of resources about the health and vitality of the humanities, as well as areas of crisis or tension that can be addressed through active knowledge exchange and shared approaches.

The Australia report is designed to contribute to a roadmap for the humanities, to:

1. develop a collective understanding of the humanities, which captures the multiplicity of meaning inherent to the term;
2. articulate the value of the humanities for a range of audiences and communities;
3. understand the context and conditions of humanities work; and
4. contribute to the development of a set of priority actions aimed at strengthening the humanities for the public good.

In developing this report, we have drawn extensively on current research, including the Academy's Future Humanities Workforce project, which is funded by the Australian Research Council.[1] Our contribution focuses on "humanities horizons" with a view to the opportunities and challenges ahead. The first part of the report charts the distinctiveness of the humanities in Australia; the second part draws out the relationship between humanities and public policy and charts areas of strength and vulnerability; and the final part focuses on humanities' futures, including next-generation researchers, educators, practitioners, and the wider workforce. A set of appendices provides underpinning research and data.

In Australia, "the humanities" are traditionally aligned with the arts and social sciences and referred to in higher education circles by the acronym "HASS" (see

[1] "Future Humanities Workforce," Australian Academy of the Humanities, accessed September 5, 2021, https://humanities.org.au/our-work/projects/future-humanities-workforce/.

appendix A). Unlike their science, technology, engineering, and mathematics ("STEM") counterparts, there is a lack of recognition from the broader public about what "HASS" stands for or describes.

To reflect emerging developments in describing these disciplines in Australia, when we refer to the broader sector in this report we adopt the acronym "SHAPE," which stands for Social Sciences, Humanities, and the Arts for People and the Economy or Environment. The term was originally coined in the United Kingdom, and a consortium of Australian and New Zealand organizations has recently come together to promote the use of this new collective term as a more accessible concept than HASS, allowing for greater meaningful engagement with government, business, education, media, and the community.[2] As our UK colleagues articulate, SHAPE offers "a fresh approach to describing both the disciplines and the objects of study which unite them" and reflects a need to find a new narrative to describe the value and impact of these disciplines in the face of significant disruption and devaluing.

With the COVID-19 pandemic's impacts on Australia's higher education and research still playing out, there is real uncertainty about the resilience of the humanities into the future. The higher education sector is the locus of humanities research activity and the training ground for next-generation talent, and the cultural and creative sectors are key destinations for humanities graduates and expertise. Both sectors are vulnerable to precarious work, which has been exacerbated by pandemic lockdowns.

Humanities' capability is dispersed, untapped, and underrealized in Australia. How can Australia better activate, facilitate, and apply humanities knowledges and problem-solving capabilities to the challenges we face? That is a question for the humanities as much as for the policymakers, institutions, and industries we address in this report.

[2] "This Is SHAPE," British Academy, accessed September 5, 2021, https://thisisshape.org.uk.

Distinctiveness of the Humanities in Australia

Louise Edwards
Christina Parolin

For more than 65,000 years Australia has been home to First Nations communities and cultures. Over the millennia, Aboriginal and Torres Strait Islander peoples have developed, established, and consolidated resilient traditions, knowledges, and ontologies. Yet, broad public recognition of this richness has occurred only in the past three or so decades. Indigenous and non-Indigenous humanities researchers and teachers have been instrumental in promoting knowledge of Australia's distinctive ancient and living Indigenous cultures to domestic and international audiences. This role is the single most important, distinctive feature of Australian humanities in a global context. In addition, the humanities in Australia are marked by their commitment to addressing contemporary problems through both long-standing humanities disciplines and new interdisciplinary fields. The Commonwealth of Australia was formed only in 1901, and most of the nation's thirty-nine publicly funded universities were established after World War II.[3] The humanities in Australia reflect and respond to these very ancient and very youthful energies.

Expanding recognition of Australia's Indigenous cultures flowed from a broader popular recognition of the importance of the uniqueness of the national story more generally. In the past three decades, Australian humanities have enriched their predominantly Anglo-European-American academic intellectual base with more diverse influences. Researchers have developed growing confidence about the value of the Australian perspective, and at the same time, the increasing diversity of the humanities workforce and student body has enabled a richer range of perspectives to be explored, disseminated, and heard.

The history of Australian philosophy provides an instructive case study of the Australian humanities' journey from an Anglo-colonial roots to a distinctive national voice. But it also reflects the challenges traditional disciplines confront in considering ancient Indigenous knowledges that are specific to the Australian continent. Over the course of the twentieth century, a form of philosophy emerged that has come to be known as "Australian materialism." Centered in analytic philosophy, a version of realist and utilitarian philosophy emerged that

[3] Australian universities (known as "Table A" providers) are listed in the Higher Education Support Act 2003 (Federal Register of Legislation, 2018), https://www.legislation.gov.au/Details/C2004A01234.

was noted for its forceful clarity and simplicity of presentation.[4] This style of philosophy had significant impacts on the shape of the field internationally. Australian moral and ethical philosophy also adopted this realist inflection with Peter Singer's still-influential challenge to human treatment of animals in his 1975 *Animal Liberation*.[5] Relative to its Euro-American counterparts, Australian philosophy remained comparatively distant from religious and theological questions. Instead, it studied concrete problems in a realist frame. This trend continues today, addressing ethical challenges posed by the rights of children, women, Indigenous peoples, and refugees. Advances in the biomedical and digital "big data" spheres prompt philosophers to examine truth and knowledge in new ways. Climate change has similarly brought ethicists into public and academic debates about environmental justice, and multiculturalism prompts discussion about the universality of values. Each of these practical ethical concerns engages directly with parallel trends occurring internationally.

Australian philosophers have been challenged to consider Australian Aboriginal and Torres Strait Islander knowledge *as philosophy*.[6] The field's earlier reluctance to include Asian thought (e.g., Confucian legalism, Buddhist logic, Daoist metaphysics) as "core philosophy" reflects the power of its analytical basis and its distance from religio-cultural concerns. The youthful nation's ambitions to perform in well-established academic parameters come into tension with recognition of alternative, ancient epistemologies.

Promoting knowledge of Australia's distinctive ancient and living Indigenous cultures to domestic and international audiences … is the single most important, distinctive feature of Australian humanities in a global context.

Where the discipline of philosophy can track the embeddedness of Australian humanities in the Anglo-European-American scene, other fields of the humanities illuminate the relative youth of the consciousness of Australia as a legitimate object of study and a legitimate site

[4] Peter Godfrey-Smith, "Australian Philosophy," *Aeon*, March 19, 2019, https://aeon.co/essays/why-does-australia-have-an-outsized-influence-on-philosophy.

[5] Peter Singer, *Animal Liberation: A New Ethics for Our Treatment of Animals* (New York: Harper Collins, 1975). The book is into its fifth edition as of 2015.

[6] Stephen Muecke, *Ancient and Modern: Time, Culture and Indigenous Philosophy* (Sydney: New South, 2004).

from which to contemplate larger humanities questions. With the notable exception of the Australasian Association of Philosophy (est. 1922), national-level professional academic associations for the humanities were typically formed from the mid-1970s. Prior to this shift, humanities scholars had generally sought to impact debates occurring in and about Britain, Europe, and America. For example, in 1974 the Art Association of Australia and New Zealand was formed, followed by the Australian Association for the Study of Religions, the Musicology Society of Australia, and the Asian Studies Association of Australia in 1976. The next year, 1977, saw the formation of the Association for the Study of Australian Literature, and in 1982 the Australian History Association was created. National academic journals such as the *Journal of Australian Studies* (est. 1977) revealed a new-found confidence among humanists about Australia's unique contribution to global knowledge while also forging debate about the composition of the Australian national identity beyond a British colonial frame.

The increasing numbers of Indigenous voices speaking on national history and in public debate are now crucial to the charting of a unique Australian national history. The Australian Institute of Aboriginal and Torres Straits Islander Studies (AIATSIS) was established in 1964, but it took until 1970 for the AIATSIS Council to include its first Indigenous member. Currently, all Council members appointed by the government are required to be Indigenous. AIATSIS has a unique remit as both a collecting and a research institution, with researchers collecting, developing, and preserving materials on Aboriginal and Torres Straits cultures and publishing through the imprint Aboriginal Studies Press. The activities and management of AIATSIS are Indigenous-led, within the vision of recognizing, respecting, celebrating, and valuing Aboriginal and Torres Straits Islander knowledge and cultures.[7]

Australia's university system is also now recognizing the role it plays in both ensuring an Indigenous voice across a broad range of inquiry and securing better outcomes for Aboriginal and Torres Strait Islander people in Australia. Universities now have units dedicated to supporting Indigenous students and promoting the study of Indigenous knowledges. In 2017 the peak body for the sector, Universities Australia, launched its first Indigenous Strategy 2017–20 (with new strategy for 2022–25 launched this year), aiming to advance Aborig-

[7] AIATSIS, "About Us," accessed September 5, 2021, https://aiatsis.gov.au/about-us.

inal and Torres Straits Islander participation and success in higher education.[8] In 2021 it was announced that, for the first time, Aboriginal and Torres Strait Islander and other Indigenous research will be specifically evaluated in the Excellence for Research in Australia (ERA) process, Australia's national research evaluation framework, which assesses performance across the full range of research activity in Australia's higher education institutions.[9]

Yet the realities for Indigenous researchers and students are often at odds with institutional plans and strategies. Our higher education and research institutions, including Australia's Learned Academies, are only now coming to terms with their own failures to support and recognize within institutional structures Aboriginal and Torres Strait Islander academics and the specificity of Indigenous knowledge systems.[10] Making space for First Nations researchers in our knowledge institutions, nurturing those at the beginning of their careers, and promoting respect for Indigenous knowledges not only are matters of social justice and equity but, if approached with genuine reciprocity, also promise to prompt new angles for inquiry from the heart of all disciplines.

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[8] *Indigenous Strategy First Annual Report* (Universities Australia, 2019), https://www.universitiesaustralia.edu.au/wp-content/uploads/2019/06/20190304-Final-Indigenous-Strategy-Report-v2-2.pdf; *Indigenous Strategy 2022–25* (Universities Australia, 2022), https://www.universitiesaustralia.edu.au/wp-content/uploads/2022/03/UA-Indigenous-Strategy-2022-25.pdf.

[9] "Indigenous Studies," Australian Research Council, accessed March 21, 2022, https://www.arc.gov.au/excellence-research-australia/era-2023/indigenous-studies. In 2020 Indigenous Studies was recognized for the first time at a division level in the Australian and New Zealand Standard Research Classification (ANZSRC); see Australian Bureau of Statistics, https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-research-classification-anzsrc/latest-release.

[10] Michelle Trudgett, Susan Page, and Stacey K. Coates, "Peak Bodies: Indigenous Representation in the Australian Higher Education Sector," *Australian Journal of Education* (April 2021), https://doi.org/10.1177/00049441211011178; Martin Nakata, "The Rights and Blights of the Politics in Indigenous Higher Education," *Anthropological Forum* 23, no. 3 (2013): 289–303, https://doi.org/10.1080/00664677.2013.803457. On Indigenous researchers in the Australian Academy of the Humanities, see Bronwyn Carlson, "Culture, Nature, Climate: Indigenous Knowledge and the Environment," 2021 Academy Lecture, Australian Academy of the Humanities, https://www.youtube.com/watch?v=b0ShP1ex-4A&t=2177s.

Non-Indigenous humanities researchers have played an instrumental role in both raising awareness of Aboriginal and Torres Strait Islander peoples, their cultures, and histories and providing expertise to help progress claims for native title and other recognition in other legal frameworks. Yet the humanities as a field are also coming to grips with the harms that past research practices have caused communities, such as the removal of ancestral remains from country, the failure to include Indigenous knowledge custodians as coauthors or contributors to research outputs, and the slow pace of support for building Indigenous research capacity in our own fields or recognizing Indigenous knowledge systems.[11]

With appropriate recognition of Indigenous researchers, there is the promise to build the range, depth, and impact of Indigenous knowledges as a third pillar in Australian intellectual life—engaging with and influencing new thinking in the humanities and the sciences (case study 1).

[11] There are active discussions within the Australian Academy of the Humanities about creating a new electoral section. On reckoning with past research practices, see Australian Academy of the Humanities, "Mungo Woman and Mungo Man: Honouring Australia's Deep History," September 2021, https://humanities.org.au/power-of-the-humanities/mungo-woman-and-mungo-man-honouring-australias-deep-history/.

Case Study 1: The Australian Research Council Centre of Excellence for Australian Biodiversity and Heritage

Lynette Russell
Iva Glisic

The Australian Research Council (ARC) Centre of Excellence for Australian Biodiversity and Heritage (CABAH) was established in 2017 under the direction of Richard (Bert) Roberts at the University of Wollongong. Headquartered in Wollongong, this Centre of Excellence includes external research nodes at six universities across Australia and is backed by a total of $33.75 million in funding for a period of seven years.[1] With a vision "to reveal a culturally inclusive, globally significant history of Australia's people and their environment," CABAH supports research activities that cut across traditional

[1] Australian Research Council, "2017 ARC Centre of Excellence for Biodiversity and Heritage," accessed September 5, 2021, https://www.arc.gov.au/grants/linkage-program/arc-centres-excellence/2017-arc-centre-excellence-australian-biodiversity-and-heritage.

disciplinary boundaries.[2] By bringing together natural and social sciences, arts and humanities, and Indigenous knowledge systems, CABAH aims to develop an advanced understanding of Australia's unique heritage and biodiversity and to tell the country's human and environmental story.

The scale and diversity of this research endeavor is reflected in CABAH's workforce profile and disciplinary range. In 2019 the Centre comprised twenty-eight investigators; eighty-one associate investigators; twenty-eight postdoctoral fellows and thirty-two PhD students; and thirty-three specialist and support staff and twenty-five collaborating partners.[3] These researchers bring expertise in archaeology, geography, history, philosophy, ethics, museology, Indigenous studies, geology, geochronology, geomorphology, geochemistry, earth and environmental science, ecology, biology, microbiology and bioethics, paleoecology, palynology, dendrochronology, radiocarbon dating, OSL dating, ecological modeling, molecular biology, and biochemistry.

CABAH researchers examine the events and processes that have shaped the continent and neighboring regions to Australia's north over the past 130,000 years. The main geographical focus is on the ancient mega-continent of Sahul, comprising the land masses that sit on Australia's continental plate, including the Australian continent along with New Guinea and Tasmania, which were connected by land at times of lower sea levels. In addition to examining the geological and climate history of this area, CABAH researchers seek to understand patterns of human migration and occupation across this territory and the ways in which people adapted to environmental and other changes over time.

This research effort is structured primarily around a set of five research themes: People, Landscapes, Climate, Wildlife, and Time and Models.[4] These themes guide the research undertaken within the Centre's four flagship programs: Northern Gateway, Top End, Southeastern Connections, and Coral Sea.[5] These programs involve close collaboration between academics

[2] Australian Research Council (ARC) Centre of Excellence for Australian Biodiversity and Heritage (CABAH), *2019 Annual Report*, 6, https://epicaustralia.org.au/wp-content/uploads/2020/06/CABAH-2019-Annual-Report_final_with-nav.pdf.

[3] ARC CABAH, *2019 Annual Report*, 7.

[4] ARC CABAH, *2019 Annual Report*, 16.

[5] ARC CABAH, *2019 Annual Report*, 20–25.

and Indigenous communities and have been designed to produce new knowledge on the natural and cultural history of the region and to generate direct benefits for local communities.

The Northern Gateway Flagship focuses on Indonesia's northern archipelago of islands, which had been used as stepping stones for people journeying into Sahul tens of thousands of years ago. Though these islands have historically been more commonly renowned for trade in spices including nutmeg, mace, and cloves, they may also hold vital archaeological evidence of how anatomically modern humans planned and made sea voyages across Indonesia into Sahul more than 50,000 years ago. This research effort is led by Roberts, with the support of local Indonesian researchers and communities.

Led by Zenobia Jacobs at the University of Wollongong, the Top End Flagship incorporates a series of research initiatives across the savannah region of northern Australia, including the northern part of the Northern Territory and northeastern Western Australia. Within these initiatives, particular focus is placed on developing a long-term environmental record of these regions, through both reconstructing past climate records and undertaking new archaeological surveys.

While Tasmania is today Australia's only island state and is separated from the mainland by a stretch of water more than 200 kilometers long, this has not always been the case. The Southeastern Connection Flagship investigates the land link between the state of Victoria in the southeastern corner of mainland Australia and Tasmania during periods of low sea levels over the past two million years, with a focus on the environmental similarities between these two regions. Under the leadership of Lynette Russell at Monash University and Christopher Johnson at the University of Tasmania, this research effort also examines pre-European fauna and Aboriginal land management practices and seeks to reconstruct the past landscape and vegetation of this area.

In 2019 these three original flagship projects were joined by the Coral Sea Flagship, which was launched by CABAH to piece together the neglected history of trade and other connections along the vast seascape linking New Guinea with the Torres Strait and eastern Cape York Peninsula. This area, which boasts extraordinary cultural, linguistic, and biological diversity, provides unique insight into the history of ancient trade and the exchange of ideas and objects. This research effort is led by Ian McNiven at Monash

University and Sean Ulm at James Cook University.

In addition to facilitating an exchange of knowledge across the academic community, CABAH also aims to place its research efforts at the heart of public life. In pursuit of this objective, CABAH has facilitated the development of educational materials for schools, interactive magazines for young adults, an artist-in-residence program, a series of exhibitions, and Country activities with Indigenous communities.

With its Education and Engagement program, CABAH places great emphasis on bringing Australia's environmental and human history to life through innovative storytelling at community engagement events. Ultimately the Centre aims to change the conversation about Australia's past by highlighting the country's "deep past" and promoting global recognition of the fact that the history of human occupation of Australia extends well beyond European arrival and can be traced back as far as 65,000 years ago.

The CABAH Art Series explores interactions between art and science as an innovative and inspiring way to engage audiences with the concepts and findings of the Centre's various research programs. Designed to unfold over the life of the Centre, the Art Series comprises four commissions that will be completed by artists in collaboration with researchers in the field.[6] A video and sound installation by the artists Sonia Leber and David Chesworth titled *Where Lakes Once Had Water* (2020) has, for example, been designed to transport its audience to remote northern Australia, where Earth scientists and traditional owners dig into the past and read the signs and signals of the landscape.[7] Works of this nature serve to augment CABAH's ethos of knowledge synergies, which allows for "different investigative pathways to coexist, resonate and converge in surprising ways."[8]

Equally significant is the Centre's ongoing engagement with state governments in the development of the science curriculum for both primary- and secondary-level students, along with its efforts to augment training across STEM (science, technology, engineering, mathematics) as a way of building Australia's capability in these fields all along the educational pipeline.[9]

[6] ARC CABAH, *2019 Annual Report*, 36.

[7] Sonia Leber and David Chesworth, *Where Lakes Once Had Water* (2020), http://leberandchesworth.com/filmworks/where-lakes-once-had-water/.

[8] Leber and Chesworth, *Where Lakes Once Had Water*, and ARC CABAH, *Strategic Plan 2020–2024*.

[9] ARC CABAH, *2019 Annual Report*, 37.

As an ARC Centre of Excellence, CABAH also has a strong focus on workforce development.[10] To this end, CABAH has initiated a unique and comprehensive training program to equip Australia's next generation of researchers with the skills and mindset needed to work and communicate effectively across a diverse array of STEM and humanities fields and to improve the number of Indigenous and female leaders within the research community. It is intended that this objective will be achieved through training and professional development provided under the CABAH Irinjili Research Training and Ethics program. In addition to preparing researchers for working across multiple disciplines in an ethical and culturally appropriate manner through thematic workshops, short courses, master classes, and symposia, the Irinjili program also seeks to improve the representation of minority groups within leadership positions in the research community and to raise the proportion of underrepresented groups in mid- and senior ranks. It is intended that these objectives will be met through the provision of funding support in the form of grants, scholarships, and internships for Indigenous Australians and women, as well as carer grants and mentoring programs. CABAH has also established an Indigenous Advisory Committee, whose duties include the implementation of strategies aimed at growing the pool of Aboriginal and Torres Strait Islander researchers and developing Indigenous cultural and intellectual property principles to underpin the Centre's research.

By harnessing the diverse talents of a leading team of researchers and educators, CABAH tells the epic story of Australia's rich and distinctive national and human history. This research will be used to revolutionize global understanding of the events and processes that have shaped this region and provide mechanisms to better manage and protect its natural and cultural resources long into the future.

[10] ARC CABAH, *Equity and Diversity Plan 2019*; ARC CABAH, *Indigenous Advisory Committee Terms of Reference.*

Recognition of Indigenous Australian culture and rights has drawn the humanities into considerable public political controversy in recent decades. A key founding myth of Australian colonialization—terra nullius—has been debunked.[12] Indigenous and non-Indigenous humanities scholars have been instrumental in overturning the notion that the British "settled" unoccupied land. Scholars of comparative colonialism note significant commonalities in British responses to resistance to their rule in South Africa, New Zealand, Australia, and Canada and in so doing have identified aspects that are distinct to the Australian experience.[13]

Archaeologists and historians have researched the productive and social organizations of Indigenous peoples, drawing on extensive archaeological, textual, and oral sources, and presented these in both academic and popular books.[14] They have exposed the frequent brutality of colonization and also revealed the complexity of Indigenous cultures. Researchers have explored the history of Aboriginal resistance to dispossession of land, the taking of children, wage theft, and slavery, as well as systemic institutional and bureaucratic abuse, to present a vision of Aboriginal survival and resilience.[15] Coming to terms with the impact of colonization on Indigenous Australians was the core of Australia's culture wars in the late 1990s and early 2000s. Humanities scholars were accused of rewriting the history of colonization for partisan political goals, promoting "black armband history" and "intergenerational guilt" rather than national pride.[16] This type of evidence poses a profound challenge to the previously dominant national story of peaceful settlement in which economic progress for

[12] Terra nullius, meaning "no one's land," was enshrined in law. Legal, social, and political redress was hard fought, and through a series of landmark legal rulings in the late twentieth century, this legal fiction was successfully overturned in 1992. The High Court ruling in the Mabo Case recognized the land rights and "native title" claims of the Meriam people, traditional owners of the Murray Islands in the Torres Strait. "The Mabo Case," AIATSIS, accessed September 5, 2021, https://aiatsis.gov.au/explore/mabo-case.

[13] Julie Evans, Patricia Grimshaw, David Philips, and Shurlee Swain, *Equal Subjects, Unequal Rights: Indigenous People in British Settler Colonies, 1830s–1910* (Manchester: Manchester University Press, 2003).

[14] Grace Karskens, *People of the River: Lost Worlds of Early Australia* (Sydney: Allen and Unwin, 2020); Bill Gammage, *The Biggest Estate on Earth* (Sydney: Allen and Unwin, 2012); Bruce Pascoe, *Dark Emu: Aboriginal Australia and the Birth of Agriculture* (Broome: Magabala Books, 2014, 2018).

[15] Henry Reynolds, *The Other Side of the Frontier: Aboriginal Resistance to the European Invasion of Australia* (Ringwood: Penguin, 1982) and *The Forgotten War* (Sydney: New South, 2013); Richard Broome, *Fighting Hard: The Victorian Aborigines Advancement League* (Canberra: Aboriginal Studies Press, 2015); Heidi Norman, *"What Do We Want?": A Political History of Aboriginal Land Rights in New South Wales* (Canberra: Aboriginal Studies Press, 2015); Russell McGregor, *Indifferent Inclusion: Aboriginal People and the Australian Nation* (Canberra: Aboriginal Studies Press, 2011).

[16] See Stuart Macintyre and Anna Clark, *The History Wars* (Melbourne: Melbourne University Press, 2003).

all emerged within an egalitarian Australia, a story that still runs deep in some sections of the popular consciousness.[17] Indigenous researchers continue to be at the forefront of these debates, challenging colonialist imperatives within and outside academia (case study 2).

[17] The second ascendant narrative is subject to contestation, notably in Bruce Pascoe's *Dark Emu* by Peter Sutton and Keryn Walshe's recent *Farmers or Hunter Gatherers? The Dark Emu Debate?* (Melbourne: Melbourne University Press, 2021).

Case Study 2: Indigenous Researchers

Christina Parolin

The distinctiveness of the humanities in Australia has been shaped and informed by the work of Aboriginal and Torres Strait Islander researchers.[1] Indigenous-led research offers unique insights on Australia history, society, and culture. Indigenous scholars in the humanities in Australia have extended the global relevance and intellectual reach of many fields of study. This case study highlights just a few researchers who have undertaken groundbreaking work in their fields.

Many Indigenous researchers are inherently interdisciplinary in their methods and approaches. Aileen Moreton-Robinson, a Geonpul woman from Stradbroke Island, pioneered race and Whiteness studies and Indigenous feminism in Australia, while contributing broadly to postcolonial studies, women's studies, Indigenous studies, and studies of native title law. Moreton-Robinson's first book, *Talkin' Up to the White Woman* (2000), introduced Whiteness studies in Australia, generating an important debate between White feminist positions and Indigenous perspectives. This book has reshaped the ways that academic scholars around the globe think and write about the relationship between Indigeneity and feminism across the SHAPE disciplines, from law, sociology, and gender studies to geography, literature, and education.[2] Moreton-Robinson's work on critical race theory and the law continues to influence a broadening of Indigenous studies from an anthropological interest in cultural difference to address fundamental issues of possession and dispossession.

[1] I am heavily indebted to many Fellows and colleagues at the Australian Academy of the Humanities on whose insights I have drawn in preparing this case study.

[2] See also Aileen Moreton-Robinson, "Towards an Australian Indigenous Women's Standpoint Theory," *Australian Feminist Studies* 28, no. 78 (2013): 331–47, https://doi.org/10.1080/08164649.2013.876664.

Drawing on and influencing different disciplinary insights is also a feature of the work of Clint Bracknell, a Noongar researcher and composer from the south coast region of Western Australia. Bracknell is at the forefront of innovation in Indigenous music and the revitalization of Indigenous languages, with his work informed by perspectives and methodologies from history, musicology, applied linguistics, ecology, health, and Indigenous studies. Two of his recent creative works were presented entirely in the Noongar language, both world firsts for Indigenous languages of Australia: his prize-winning co-translation and music composition for *Hecate* (2020), a complete Shakespearean theater work, and his co-translation and voicing for a dubbed feature film (*Fist of Fury Noongar Daa* [2021]). His work is also closely linked to the environmental crisis, examining how Indigenous language, song, and dance support human connection to and sustainability on Country. Working with the Noongar/Yamitji creative practitioner and teacher Trevor Ryan, Bracknell is involved in a new collaboration that draws on Noongar song traditions to create "a new on-Country repertoire," which both "listens to the ancestors" and recognizes that a "changing world necessitates innovation with Noongar tradition of practice listening to youth and ecologists."[3]

The range of inquiry of Indigenous researchers in the humanities is broad, from understanding the continent's deep past to the current environment crisis to the present and future of digital technologies. Bronwyn Carlson's work has remedied a significant absence of First Nations peoples in contemporary social media research. An Aboriginal woman who was born on and lives on D'harawal Country, Carlson has led the study of the encounter between Aboriginal and Torres Strait Islander people and digital media and the new formations of Indigeneity enabled by digital communications.[4] Carlson traces the use of social media as a platform for Indigenous political and anti-colonial movements, while also exploring social media racism and cyber bullying among Aboriginal people. Her research expands our understanding of contemporary Aboriginal life, bringing a nuanced and Indigenous-led perspective to Indig-

[3] Clint Bracknell and Trevor Ryan, "Listening to the Ancestors," 2021 Annual Conference of the Australian Academy of the Humanities, https://www.youtube.com/watch?v=y7OMZ6uDJK8&t=426s.

[4] Bronwyn Carlson and Ryan Frazer, *Indigenous Digital Life: The Practice and Politics of Being Indigenous on Social Media* (Cham, Switzerland: Palgrave Macmillan, 2021); Bronwyn Carlson, "Indigenous Internet Users: Learning to Trust Ourselves," *Australian Feminist Studies* 36, no. 107 (2021): 9–25.

enous popular culture mobilized in social media, acknowledging its harmful impacts but also recognizing the empowering and transformative potential of digital media for Indigenous agency.

The perspectives of Indigenous historians are also both challenging and deeply enriching the field of history and our national understanding of the past. The work of John Maynard, a Worimi man, has changed Australian historiography, revealing active Aboriginal participation, resistance, and resilience throughout our colonial history. Ranging from studies of Aboriginal activism since the 1920s and its links to the international Black diaspora to cultural and intimate relations between Aboriginal and settler Australians and the involvement of Aboriginal people in sport and in international conflicts, Maynard's work writes Aboriginal people back into our social and cultural history with narratives of both resistance and resilience and contributes to a broader understanding of institutional racism in Australia throughout the twentieth century. In *Fight for Liberty and Freedom* (2007), Maynard documented a powerful twentieth-century Aboriginal campaign for the political rights and the influence of Garveyism on Aboriginal political activism, a legacy that Maynard believes continues to influence activists today.[5]

Lynette Russell's pioneering work on historical narratives, colonial representations, Indigenous agency, hybridity, and stereotypes has also transformed our understanding of Australia's past. In *Roving Mariners* (2012) Russell explores communities of Aboriginal and non-Indigenous whalers and sealers in colonial Australia, finding Aboriginal agency, adaptiveness, and inventiveness despite colonial policies and practices that had devastating consequences for Aboriginal communities. Placing Indigenous peoples and histories at the center of the analysis, Russell's scholarship engages with Indigenous studies theories and methodological questions, blends historical archival research with literary and visual analysis, and moves across disciplinary boundaries to inform her analysis of complex issues concerning race and Indigeneity. In 2019 Russell was awarded one of Australia's most prestigious research grants,

[5] Jeanine Leane, "Review of John Maynard's *Fight for Liberty and Freedom: The Origins of Australian Aboriginal Activism*," *Australian Aboriginal Studies* 1 (2010): 123–24; John Maynard, "The Political Influence of Garveyism on Aboriginal Australia," Guest Lecture, the Birkbeck Institute for the Humanities, October 3, 2017, https://backdoorbroadcasting.net/2017/10/john-maynard-the-political-influence-of-garveyism-on-aboriginal-australia/.

an Australian Laureate Fellowship, for her project "Global Encounters and First Nations Peoples: 1,000 Years of Australian History." Russell is examining encounters between Aboriginal and Torres Strait Islander peoples and voyagers from the sea and recasting Australia's role in global exploration over the past thousand years.

Shino Konishi, a Yawuru woman, is another historian bringing a distinctive Aboriginal approach to her archival research of Aboriginal history, gender relations, and Indigenous biography. Konishi has reevaluated contact history by reading narratives of encounter (Indigenous and European) "against the grain" to more fully understand the Aboriginal perspective in the colonial encounter and revealing histories of Indigenous agency from colonial sources. Kinoshi's work on cross-cultural encounters in Australian history challenges previous understandings of the colonizing impact upon Indigenous lives on the continent.[6] Her scholarship has advanced the decolonization of history in Australia, shifting the perspective toward those resisting colonialism and improving the way Aboriginal life is understood by both historians and the general public.

Indigenous researchers in Australia have made influential and transformational contributions to several fields of research in the humanities, including establishing networks in Indigenous studies between national and international scholars and between Indigenous communities and cultural institutions. They have also mentored the next generation of Indigenous academics. Their work is also intrinsically and practically connected to community, making powerful contributions to the lives and well-being of Aboriginal and Torres Strait Islander people. To date, these contributions have not been adequately recognized in institutional reward and promotion structures.[7] Developing and modeling community-engaged scholarship and methodologies have been driven by an imperative to create knowledge that is accessible and transformational for Indigenous communities. This

[6] Shino Konishi, *The Aboriginal Male in the Enlightenment World* (London: Pickering and Chatto, 2012); Shino Konishi, "First Nations Scholars, Settler Colonial Studies, and Indigenous History," *Australian Historical Studies* 50, no. 3 (2019): 285–304, https://doi.org/10.1080/1031461X.2019.1620300.

[7] "Case Study: Charles Sturt University Academic Promotions Review to Include and Recognize First Nations Skills, Knowledges, Value and Additional Workloads," *Indigenous Strategy 2022–25* (Universities Australia, 2022), https://www.universitiesaustralia.edu.au/publication/indigenous-strategy-2022-25/.

has also changed the way non-Indigenous researchers approach work with Indigenous communities, generating respectful and ethical pathways for academic research and teaching.[8]

[8] Victoria Rawlings, James Flexner, and Lynette Riley, eds., *Community-Led Research: Walking New Pathways Together* (Sydney: Sydney University Press, 2021); Michael Webb and Clint Bracknell, "Educative Power and the Respectful Curricular Inclusion of Aboriginal and Torres Strait Islander Music," in *The Politics of Diversity in Music Education*, ed. Alexis Anja Kallio, Heidi Westerlund, Sidsel Karlsen, Kathryn Marsh, and Eva Sæther (Cham, Switzerland: Springer, 2021), 71–86; Australian Institute of Aboriginal and Torres Strait Islander Studies, *AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research*, 2020, https://aiatsis.gov.au/sites/default/files/2020-10/aiatsis-code-ethics.pdf.

Broadening the awareness of Indigenous conceptions of time, seasons, land, and narrative has the potential to produce novel perspectives about the human journey for all humanities scholars. Indigenous and non-Indigenous scholars in art and design have been instrumental in broadening public knowledge of the importance of both ancient rock paintings and new Indigenous artworks in diverse media. Their scholarship brings attention to the epistemic and political challenges these artifacts and artworks pose. The galleries, libraries, archives, and museums (GLAM) sector's exhibits of Aboriginal and Torres Straits art have also explicitly challenged long-standing narratives of "peaceful settlement" and terra nullius.[18] Musicologists and scholars of the performing arts are similarly playing significant roles in changing the broader understanding about Australian culture. Through their work, the importance of cultural transmission through song, music, and dance for Indigenous Australians is increasingly being valued

[18] See National Gallery of Australia, "3rd National Indigenous Art Triennial: Defying Empire," May 26–September 10, 2017, https://nga.gov.au/exhibitions/defying-empire/. For a critique of cultural institutions' past practices, see Gary Foley, *History, Memory and the Role of Cultural Organizations in Entrenching Colonisation in Australia and Beyond* (Melbourne: Perimeter Books, 2020), and Susan Lowish, *Rethinking Australia's Art History: The Challenge of Aboriginal Art* (New York: Routledge, 2018).

as a unique national attribute.[19]

Similarly, after decades of neglect, Aboriginal and Torres Strait Islander languages are at the forefront of humanities research, with scholars in linguistics working alongside communities to support the maintenance and revitalization of these important languages and to educate the general public about the complex language dynamics of contemporary Indigenous Australia—by providing grammars, dictionaries, and other teaching tools alongside analyses of syntax, pragmatics, and phonetics, they are showing the connections of Australia's languages to global human communication patterns.[20] PARADISEC (Pacific and Regional Archive for Digital Sources in Endangered Cultures) is a digital resource of materials from endangered cultures from all over the world; it preserves material that would otherwise be lost and gives interested communities access to the repository, making field recordings available to the people and communities recorded and to their descendants (case study 3).[21]

[19] Aaron Corn, *Reflections and Voices: Exploring the Music of Yothu Yindi with Mandawuy Yunupingu* (Sydney: Sydney University Press, 2009); Anna Haebich, *Dancing in Shadows: Histories of Nyungar Performance* (Perth: UWA Publishing, 2018); Maryrose Casey, *Telling Stories: Aboriginal Australian and Torres Strait Islander Performance* (Melbourne: Australian Scholarly, 2012); Clint Bracknell, "Maaya Waabiny: Mobilising Song Archives to Nourish an Endangered Language," *Humanities Australia* 11 (2020): 19–27.

[20] University of Adelaide, School of Humanities, "Kaurna Warra Pintyanthi (KWP) Team," https://able.adelaide.edu.au/humanities/kaurna-warra-pintyanthi-kwp-team#aboutaa-kwp-and-kwk; Ilana Mushin, *A Grammar of (Western) Garrwa* (Boston: De Gruyter Mouton, 2012); see also Clint Bracknell, "Rebuilding as Research: Noongar Song, Language and Ways of Knowing," *Journal of Australian Studies* 44, no. 2 (2020): 210–23.

[21] Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC), https://www.paradisec.org.au/.

Case Study 3: Languages in the Australian Context

Kate Burridge

The distinctiveness of the humanities in Australia is underscored by the very practical applications of the research emerging from the discipline areas of translation and interpreting, and language and linguistics more generally. In Australia there are more than 250 Indigenous languages, including around

800 dialects.[1] Australia also has a long history of immigration, which has contributed to the nation's strong multicultural profile. Data gathered as part of the 2016 census indicates that some 28 percent of Australian residents were born overseas, the highest overseas-born population proportion in OECD countries with more than ten million people.[2]

Many humanities scholars have been playing a vital role in raising public awareness of the complex consequences of culture and language difference within such settings as education, health, and the law—in particular, issues around linguistic discrimination and the maintenance of power in a globalized society and the deep problems posed by translation between such radically different languages and cultures as those of Indigenous Australians and English. Their research has highlighted how language does and doesn't work in institutional contexts and what can go wrong when misconceptions about language and speech inform decisions that then go on to affect the life chances of others.

The following are some of the many notable humanities scholars whose pioneering achievements have resulted in demonstrable improvements to the lives of people in Australia, as well as internationally.

Research within sociolinguistics by Diana Eades has brought to light the inequalities that beset Indigenous people whose cultural and linguistic norms differ from those that dominate the legal system;[3] insights from this research are now influencing courtroom processes and helping to achieve fairer judicial outcomes (for example, in the evaluation of witness accounts and the communication of rights, such as the right to silence).

Speech science research by Helen Fraser has exposed major problems relating to the translation of material in languages other than English, transcription of indistinct English, attribution of utterances to speakers, and "enhancement" of poor-quality audio;[4] collaboration among law, law enforcement, and linguistics has now resulted in a successful call for the reform of legal practices around

[1] "Living Languages," AIATSIS, accessed September 5, 2021, https://aiatsis.gov.au/explore/living-languages.

[2] Andrew Markus, *Mapping Social Cohesion*, The Scanlon Foundation Surveys (2018), 1.

[3] Diana Eades, "Communicating the Right to Silence to Aboriginal Suspects: Lessons from Western Australia v Gibson," *Journal of Judicial Administration* 28 (2018): 4–21.

[4] Helen Fraser, "Thirty Years Is Long Enough: It's Time to Create a Process That Ensures Covert Recordings Used as Evidence in Court Are Interpreted Reliably and Fairly," *Journal of Judicial Administration* 27, no. 30 (2018): 95–104.

the use of covert recordings as evidence in Australian criminal trials.

Legal interpreting research by Sandra Hale has raised awareness of the problems around the training and practice of interpreters, as well as government policy relating to interpreter issues;[5] this innovative work (combining experimental studies, large data-based research of court-interpreted proceedings and an extensive survey involving personnel in courts and tribunals throughout the country) has been highly influential in the education of lawyers and judicial officers and has led to the development by the Judicial Council on Cultural Diversity of the Recommended National Standards for Working with Interpreters in Courts and Tribunals (2017), which is widely used and is in the process of guiding new legislation.

Research in the area of language planning, literacy education, and social cohesion by Joseph Lo Bianco has laid bare the role played by language in ethnic conflicts and also the capacity for language to resolve these conflicts;[6] this research has facilitated dialogue between opposing factions, cooperatively creating new language and education policies and promoting rapprochement and cohesion in countries that have been embroiled in decades of conflict (e.g., Thailand and Myanmar).

Applied linguistic research by Tim McNamara with the Swiss Migration Department's special unit Lingua has tackled the complexities typically ignored by governments' oversimplified view of the connection between language and national origin;[7] this collaboration, unique in the highly politically charged arena of asylum claim assessment, has resulted in a best-practice model which is both theory-based and accessible for migration officers to apply.

Interdisciplinary research by Ingrid Piller (combining sociolinguistics and globalization studies, among others) trains the spotlight on how language diversity can entrench disadvantage and inequality, as illustrated in failures

[5] Sandra Hale and Jemina Napier, *Research Methods in Interpreting: A Practical Resource* (London: Bloomsbury, 2013).

[6] Joseph Lo Bianco, "Uncompromising Talk, Linguistic Grievance, and Language Policy: Thailand's Deep South Conflict Zone," in *The Palgrave Handbook of Languages and Conflict* (Cham, Switzerland: Springer International, 2019), 295–330.

[7] Tim McNamara and Doris Schüpbach, "Quality Assurance in LADO: Issues of Validity," in P. L. Patrick, M. S. Schmid, and K. Zwaan, *Language Analysis for the Determination of Origin: Current Perspectives and New Directions* (Cham, Switzerland: Springer, 2019), 253–71.

around multilingual communication in times of crisis;[8] important findings from this research have been used to inform policy and public discourse in such contexts as migration, citizenship testing, second-language learning, and public health communication.[9] Emergency linguistics examines the ways in which potentially life-saving information is communicated across diverse communities, each of which has its own needs and special challenges.[10] Australia's linguistic diversity brings a wide variety of benefits but also generates certain linguistic challenges, with around 4 percent of the Australian population being unable to speak English well or at all. While this is a small percentage, it represents around 800,000 people, which, in the context of a pandemic or natural disaster, is a concerning number of individuals who could be missing out on vital information.

The risks posed by such language barriers are further compounded by the fact that the majority of Australia's migrant population live in cities, which have globally been hotspots of the pandemic. Noting that Australia entered into the COVID-19 pandemic with a decidedly monolingual approach to public communication, Piller highlights the need to draw from current research on crisis communication to develop better outreach strategies. The establishment of a "volunteer force of multilingual talent" that can be activated to support government's communication efforts in times of crisis, akin to the model provided by Australia's volunteer firefighter services, would go a long way toward addressing these challenges.

Notably in addition, there is the ARC Centre of Excellence for the Dynamics of Language (directors Nick Evans and Jane Simpson). Described as "the brightest single light on the international stage in the language sciences and allied fields"

[8] Ingrid Piller, Jie Zhang, and Jia Li, "Linguistic Diversity in a Time of Crisis: Language Challenges of the COVID-19 Pandemic," *Multilingua* 39, no. 5 (2020): 503–15; Ingrid Piller, *Linguistic Diversity and Social Justice: An Introduction to Applied Sociolinguistics* (Oxford: Oxford University Press, 2016).

[9] Australian Academy of the Humanities, "Fighting COVID-19: It's Time to Break Down the Language Barriers," October 7, 2020, https://www.humanities.org.au/2020/10/07/fighting-covid-19-its-time-to-break-down-the-language-barriers/.

[10] See interview with Ingrid Piller, published as part of the Academy's series "Humanities for Times of Crisis," which draw on information from its expertise database: "Fighting COVID-19: It's Time to Break Down the Language Barriers." See also Piller's contribution to the Australian Academy of *Science's Science of Immunisation Report* (2021), https://www.science.org.au/education/immunisation-climate-change-genetic-modification/science-immunisation.

(Tony Woodbury, University of Texas at Austin), the Centre is renowned for its cutting-edge and cross-disciplinary collaborations involving Australian and international scholars working in partnership across the disciplines of linguistics, speech pathology, psychology, anthropology, philosophy, bioinformatics, and robotics.[11] In particular, it is celebrated for its high level of public outreach and industry engagement, both within Australia and overseas. The important work of this Centre includes new (publicly available) language recording tools and documenting/archiving technologies to secure comprehensive descriptions of the Indigenous languages in the region (many of them endangered); research technologies for better speech recognition systems and automated parsing for translation; and assistive technology ("language prostheses") that offers conversational support to those with language loss or degenerative processes such as dementia. These are but a few of the Centre's remarkable achievements.

In late 2020, five of the world's leading Learned Academies, including the Australian Academy of the Humanities, joined forces in calling for urgent action to protect and promote language study globally. It is the first time national peak bodies in the humanities and social sciences have collaborated to issue a public call on behalf of language diversity to meet the growing communications challenges of the twenty-first century.[12]

This unprecedented collaboration has been prompted in part by the COVID-19 pandemic, which has intensified and challenged communications—virtual meetings, streamlining cultural content, international news, social media—and increased tensions across international borders. In Australia, there is a cross-cultural and intercultural imperative to this agenda; it will involve a rights-based and anti-poverty perspective (including for Indigenous and immigrant populations) and address variable access to communications platforms and digital disadvantage.

[11] Australian Research Council Centre of Excellence for the Dynamics of Languages, "About," accessed September 5, 2021, https://www.dynamicsoflanguage.edu.au/about/.

[12] Australian Academy of the Humanities, "Australia Joins Global Call to Action to Celebrate Language Diversity and Promote a Multilingual World," December 2020, https://www.humanities.org.au/2020/12/01/australia-joins-global-call-to-action-to-celebrate-language-diversity-and-promote-a-multilingual-world/.

Studies of Australian literature blossomed in the 1960s and by the 1970s joined the international debate between advocates of literary theory and the so-called traditionalists. This debate enveloped discussion in English, European, and Australian literature and would eventually contribute to the dynamic field of cultural studies in many university departments.[22] The Australasian Universities Language and Literature Association (est. 1950) tracks the contestation about the value of theory to studies of literature through the changing content of its *Journal of Language, Literature and Culture* (est. 1953).[23] A second journal dedicated solely to the national literature, *Australian Literary Studies*, emerged in 1963.[24] The University of Sydney established the first Chair of Australian Literature in 1962. Its third occupant, Elizabeth Webby, titled her 1991 inaugural lecture with the question "Why Australian Literature?" This existential problem was an advance on the question posed in the 1950s, prior to the establishment of the Chair: "What Australian Literature?"[25] After several decades, the University of Sydney decided to leave the Chair vacant in 2019 as a result of funding difficulties, but it maintains a continuing position in Indigenous Literature, established in the past decade.[26] The distinctiveness of Australian literature amid others written in English around the world continues to be discussed, nonetheless. The project requires both a national consciousness and a transnational imagination.

The youthful, problem-oriented bent in Australian humanities is evident in the interdisciplinary and area studies programs in the nation's universities. Women's and gender studies, cultural studies, multicultural studies, and Asian

[22] Peter Cryle, "Humanities Research Agendas in Australia since 1969: Literary and Textual Studies," in *Taking Stock: The Humanities in Australian Life since 1968*, ed. Ian Donaldson and Mark Finnane (Perth: UWA Publishing, 2012), 46–53.

[23] *Journal of Language, Literature and Culture*, "Journal Information," accessed May 10, 2022, http://www.aulla.com.au/about/.

[24] Australian Literary Studies, "About," accessed September 5, 2021, https://www.australianliterarystudies.com.au/about.

[25] Elizabeth Webby, "Why Australian Literature?," *Arts: The Journal of the Sydney University Arts Association* 16 (1996): 42–53. See Susan McKernan, *A Question of Commitment: Australian Literature in the Twenty Years after the War* (Sydney: Allen and Unwin, 1989); Graeme Turner, *National Fictions: Literature, Film and the Construction of Australian Narrative* (Sydney: Allen and Unwin, 1993); Graham Huggan, *Australian Literature: Postcolonialism, Racism and Transnationalism* (Oxford: Oxford University Press, 2007).

[26] ASAL, "ASAL Statement about the Non-appointment of the University of Sydney Chair of Australian Literature," October 17, 2019, https://www.asal.org.au/events/the-university-of-sydney-chair-of-australian-literature/.

studies all emerged in the 1970s and 1980s along with the expansion of the higher education sector. In women's studies Australian researchers made global contributions through discussions of reflexivity, standpoint theory, corporeality, and the nexus of gender, race, and ethnicity.[27] A branch of cultural studies gained broad public and intellectual traction for its cultural and creative industries approaches that linked creativity to economic value.[28] Linguists have also been instrumental in confronting the challenges of multilingualism, with the first National Language Policy appearing in 1987; the policy addressed English, Aboriginal languages, and English as a foreign language, as well as immigrant and foreign languages, language rights, and translating and interpreting.[29] These fields produced an array of research that had explicit practical and theoretical components.

Australian researchers also played a pioneering role in the development of the field of environmental humanities. Emerging in the closing decades of the twentieth century in response to the looming global ecological crisis, humanities researchers began exploring the human dimensions of the pressing problems of climate change and environmental degradation.[30] Researchers from across the humanities and arts disciplines have utilized diverse approaches and methods to understand the social and cultural forces that influence people's attitudes to,

[27] Catriona Elder, "Gender, Feminism and Research Agendas, 1969–2009," in *Taking Stock: The Humanities in Australian Life since 1968*, ed. Ian Donaldson and Mark Finnane (Perth: UWA Publishing, 2012), 53–63. See specifically Aileen Moreton Robinson, *Talkin' Up to the White Women: Aboriginal Women and Feminism* (St. Lucia: University of Queensland Press, 2000).

[28] Stuart Cunningham, *Hidden Innovation: Policy, Industry and the Creative Sector* (Brisbane: University of Queensland Press, 2016); Terry Flew and Stuart Cunningham, *Australia's Cultural and Creative Industries and Institutions: Submission 95: Professor Terry Flew and Distinguished Professor Stuart Cunningham*, House of Representatives Standing Committee on Communication and the Arts, October 2020, https://www.aph.gov.au/DocumentStore.ashx?id=5d21f3d9-4b31-47de-a5f2-b32a3b31dcc9&subId=694814; Justin O'Connor, *Arts and Creative Industries: A Historical Overview and an Australian Conversation* (Canberra: Australia Council for the Arts, 2011), https://apo.org.au/sites/default/files/resource-files/2011-02/apo-nid260236.pdf.

[29] Joseph Lo Bianco, *National Policy on Languages* (Canberra: Australian Government Publishing, 1987).

[30] Libby Robin, "The View from Off-Centre: Sweden and Australia in the Imaginative Discourse of the Anthropocene," in *Nature, Temporality and Environmental Management: Scandinavian and Australian Perspectives on Landscapes and Peoples*, ed. Lesley Head, Katarina Saltzman, Gunhild Setten, and Marie Stenseke (London: Routledge, 2017), 76–92; Catherine Rigby, "Weaving the Environmental Humanities: Australian Strands, Configurations, and Provocations," *Green Letters* 23, no. 1 (2019): 5–18, https://doi.org/10.1080/14688417.2019.1578250; Australian Environmental Humanities Hub, "About," accessed September 5, 2021, http://www.aehhub.org/about/.

and impacts on, the environment, calling for a reframing of climate change as a social issue as opposed to an environmental and scientific one.[31] Living and working on a continent with one of the most diverse, dry, and vulnerable environments in the world gave rise to a uniquely Australian perspective, with scholars engaged around the pressing global crisis and the realities of the challenges at the local level—including bushfires, droughts and floods, and threats to iconic habitats such as the Great Barrier Reef.[32] They have encouraged Australians to understand the historical origins of their contemporary environmental challenges, and now, in collaboration with First Nations researchers and knowledge custodians, are closely exploring how Aboriginal cultures have used expert environmental strategies to manage the land for over 65,000 years (see case study 1).[33]

In the twenty-first century, Australian researchers have been active in the digital humanities as both users and creators of digital resources across a host of disciplines and fields. Some of the most prolific are in linguistics and languages, history (with major contributions such as Colonial Frontiers Massacres Map[34]), and media and communications (digital and social media platforms).[35] Contributing to practices developed around the world, leading Australian institutions such as the National Library of Australia (NLA) developed initiatives to record and make freely available documents and artifacts about Australian society. Prominent among these is Trove, a free online platform of Australian documents, media, websites, and photographs established in 2009 as the result

[31] Lesley Head, "Why We Need to Reframe Climate Change as a Social Issue," Australian Academy of the Humanities, accessed May 3, 2022, https://humanities.org.au/power-of-the-humanities/why-we-need-to-reframe-climate-change-as-a-social-issue/.

[32] See, for example, Tom Griffiths, "We Have Still Not Lived Long Enough: Black Friday and Black Saturday," *Humanities Australia* 1 (2010): 23–33; Iain McCalman, *The Reef: A Passionate History* (Melbourne: Penguin Group, 2014).

[33] Marcia Langton, *Burning Questions: Emerging Environmental Issues for Indigenous Peoples in Northern Australia* (Darwin: Centre for Indigenous Natural and Cultural Resource Management, Northern Territory University, 1998); Australian Academy of the Humanities, "Land, Resource & Fire Managers: Australia's First Peoples," October 2021, https://humanities.org.au/power-of-the-humanities/land-resource-and-fire-managers-australias-first-peoples/.

[34] "Colonial Frontiers Massacres Map," University of Newcastle, accessed September 5, 2021, https://c21ch.newcastle.edu.au/colonialmassacres/map.php. The project to research and build this online map and related information is led by the historian Lyndall Ryan at the University of Newcastle in consultation with the Wollotuka Institute and AIATSIS.

[35] An exemplar is the long-term project "TrISMA: Tracking Infrastructure for Social Media in Australia" and its efforts to establish a national Australian Twitter Collection. See https://research.qut.edu.au/dmrc/projects/trisma-tracking-infrastructure-for-social-media-analysis/.

of collaboration among libraries and archives around the country.[36] The NLA also maintains the vast Australian web domain archive, a major corpus whose research potential has yet to be fathomed.[37] Scholars of Australian literature were early creators of online databases, with AustLit established in 2000 with the goal of providing resources on literature and storytelling and biographical and bibliographic data, as well as full text and online exhibits.[38] The Australian National Corpus Initiative involved a concerted push by linguists, applied linguists, and language technologists to establish a massive online database. Book-length analyses of the digital humanities, in literature for example, are now appearing. [39]

Asian studies in Australia also reflects a distinctiveness informed by the context in which it has developed. Like its US counterpart, as a field, Asian studies was initially envisaged as a preparatory ground for political and business leaders to help them understand the Asian region. The programs produced skilled linguists in various Asian languages and were instrumental in shifting the nation's view of Asia "from fear to opportunity."[40] The fear of an Asian invasion prompted by early Australian imaginings of a White British colony moved to an opportunistic vision of economic gains to be made in exporting to the world's largest and fastest-growing market. Humanities scholars in Australia taught and researched the diversity of Asia and sought to mark themselves as distinct from the colonial Europeans, yet could not escape appearing as proxies for old European powers or deputies for new American visions of Asia.[41] The challenge going forward for Australia's Asia scholars is to lead public discussion

[36] "Trove: A Brief History," National Library of Australia, accessed September 5, 2021, https://trove.nla.gov.au/about/what-trove/history.

[37] "Archived Websites," National Library of Australia, accessed September 5, 2021, https://webarchive.nla.gov.au/collection.

[38] AustLit, accessed September 5, 2021, https://www.austlit.edu.au.

[39] Katherine Bode, *A World of Fiction: Digital Collections and the Future of Literary History* (Ann Arbor: University of Michigan Press, 2018).

[40] On national identity see Stephen FitzGerald, *Is Australia an Asian Country?* (Sydney: Allen and Unwin, 1997). On educational policy see discussion in Hannah Soong and Nayla Cominos, eds., *Asia Literacy in a Global World: An Australian Perspective* (Singapore: Springer, 2018).

[41] Asian Studies Association of Australia, *Maximising Australia's Asia Knowledge* (Canberra: ASAA, 2002), http://asaa.asn.au/wp-content/uploads/2015/09/Maximising-Asia-knowledge.pdf. For a detailed appraisal of the history of Asian Studies at the University of Sydney, see Adrian Vickers, "From Oriental Studies to Inter-Asia Referencing," *Journal of the Society for Asian Humanities* 52 (2020–21).

about how a modern, multicultural Australia can work and live with now-powerful, large Asian nations. The disquiet Australians feel in contemplating a more muscular Asia emerges from a mix of national security and economic concerns but stems also in part from the race hierarchies that still linger in the national psyche.[42]

Navigating the rapidly changing geopolitics of our region, ensuring a well-rounded knowledge of Australia's history, acknowledging Aboriginal and Torres Strait Islander cultures, knowledges, and rights as foundational to our national future, and imagining a new substantive kind of citizenship for a multicultural society, with deep diaspora connections, is an intergenerational project for the humanities in Australia.[43]

[42] David Walker, *Anxious Nation: Australia and the Rise of Asia, 1850–1939* (St. Lucia: University of Queensland Press, 1999).

[43] See, for example, discussion linking Aboriginal dispossession, immigration debates, and multiculturalism: Ann Curthoys, "An Uneasy Conversation: The Multicultural and the Indigenous," in *Race, Colour and Identity in Australia and New Zealand*, ed. John Docker and Gerhard Fischer (Sydney: UNSW Press, 2000), 21–36; Peta Stephenson, "New Cultural Scripts: Exploring the Dialogue between Indigenous and 'Asian' Australians," *Journal of Australian Studies* 27 (2003): 57–68; Ruth Balint, "Aboriginal Women and Asian Men: A Maritime History of Color in White Australia," *Signs: Journal of Women in Culture and Society* 37, no. 3 (2012): 544–54.

Case Study 4: Public Humanities

Will Christie

The term "humanities" traditionally refers to a group of academic disciplines that examine human actions, ideas, institutions, and values: philosophy; political and social history; the history and theory of music, art, and architecture; the study of cultures, languages, and literatures. Over the past twenty years, however, universities have recognized that their activities are only part of a much broader humanities ecosystem. Insofar as they urge us to examine our personal and social lives, the humanities are something that, simply by virtue of our being human, we are all doing, all of the time, whenever we visit an art gallery, discuss the latest film, or reflect on the past and its relation to the present. Any account of the nature and extent of the humanities in Australia needs to recognize the vital role of the public (or "everyday") humanities.[1] In many cases there is a substantial overlap between the two: university scholars will

[1] See Michael Levenson, *The Humanities and Everyday Life* (Oxford: Oxford University Press, 2017).

collaborate with their colleagues in the GLAM (galleries, libraries, archives, and museums) sector on staging an exhibition, for example, or will contribute to a panel at a writers' festival or deliver a public lecture. For the sake of convenience, however, we can distinguish between public humanities activities that are initiated by the community (including local, state, and national governments) and those that are initiated by or within universities themselves.

Of those initiated by the community, some, such as metropolitan and regional community colleges and the University of the Third Age (U3A), offer classes that formally replicate the curriculum and pedagogical practices (but not the assessment practices) of universities themselves. Here Australians can take classes offered by volunteer lecturers in language, literature, art, history, or culture, and in this way community colleges make an important contribution to life-long learning. Australian universities too offer continuing education classes and events for the public on their campuses.

All of Australia's capital cities now host an annual or biennial Writers' Festival, and indeed events of this nature are increasingly a feature of regional life.[2] Locals and tourists can now attend the Ballarat Writers' Festival in Victoria, the Wollongong Writers Festival, the Newcastle Writers' Festival, the Byron [Bay] Writers Festival, or the Orange Readers and Writers Festival in New South Wales. These community events offer the public a busy program of individual speakers or panels addressing a recently published book of fiction or nonfiction by the speaker(s) or a topical cultural or political idea. Individual humanities academics have links with particular festival events or programs, and most metropolitan universities are involved in sponsorship to some degree.

Another common example of public humanities, and one that has been accelerated by the internet, is the local (and now also virtual) book club movement, sometimes with sophisticated links to libraries or bookshops to enable the distribution of texts. It would not be possible to map this activity in any way comprehensively, though a visit to Melbourne's Literature Groups website reveals life's infinite variety, with book clubs dedicated to particular genres, particular authors, particular genders, particular places, and even particular prizes.[3]

[2] Australian Writers' Centre, "A Calendar of Australian Writers' Festivals for 2021," accessed September 5, 2021, https://www.writerscentre.com.au/blog/a-calendar-of-australian-writers-festivals-for-2021/.

[3] For example, "Book Club Groups in Melbourne," Meetup, accessed March 21, 2022, https://www.meetup.com/en-AU/topics/bookclub/au/melbourne/.

Local and family history societies continue to flourish, with more and more families taking an interest in their genealogy and with every suburban and regional library hosting a local history society for its geographical area. "There are more than a thousand historical societies, family history groups, keeping places, and community heritage groups across Australia," declares the Societies page of the Federation of Australian Historical Societies website, a website that claims more than 100,000 members and goes on to offer instructions about starting up one's own historical society and training on running a society and managing a collection.[4] According to the Federation's map, the majority of Australia's historical societies are to be found in and around Melbourne (278), and it is clear from the 1,000 societies represented on the website that almost every Australian town, however small or remote, has one.

Historical reenactment, too, is of continuing interest to contemporary Australians. The Australasian Living History Federation lists around ninety member groups on its website, from the Ancient Hoplitikon of Melbourne and the Sydney Ancients to the Society of Merchants, Artisans, and Combatants. Far and away the most common focus of these societies is military activities and events, with the societies taking their titles from specific battles or fighting units; sometimes the interest is in a specific period: ancient, medieval, Napoleonic, Victorian, and so on.[5]

Literary societies are faring less well, perhaps because English literature departments in Australia have shrunk dramatically in terms of their funding, course offerings, and workforce, and their orientation and curriculum have changed. Despite a general decline in the popularity of literary societies, there are pockets of enthusiasts keeping these societies alive. Membership of the Sydney-based Jane Austen Society of Australia (JASA), founded in 1989, has remained very stable over the past two decades with about 600 members. The two-monthly JASA events in Sydney usually have an attendance of about 180 people, with 200 people attending day conferences in Sydney and about 160 for the annual weekend conference held outside Sydney. The NSW Dickens Society usually expects about fifty people at each meeting and recently hosted

[4] Federation of Australian Historical Societies, accessed March 21, 2022, https://www.history.org.au/historical-societies/.

[5] Australasian Living History Federation, accessed March 21, 2022, http://www.alhf.org.au.

the International Dickens Fellowship conference in Sydney.[6]

Literary societies work to create a shared heritage and are usually openly canonical in their assumptions and celebratory in their approach. Other public humanities interventions in Australia (as elsewhere) are more critical or disruptive ("activist"), designed to challenge the status quo, especially around issues of feminism, LGBTQI, Indigeneity, migration, animal rights, and (increasingly) the environment. As sites of expression and collective memory, respectively, galleries and museums have become sites of organized action taken by an individual or (most often) a collective to create understanding and improve the social conditions of minorities.[7] Whole museums, such as Melbourne's Immigration Museum, are now dedicated to the Australian migrant experience, and over the past thirty years the GLAM sector in Australia has taken a more active role in altering perceptions and prejudices. This has been most obviously true of the history and culture of Australia's First Nations people, whose knowledges and artistic expression are gradually becoming better known and respected through a variety of public humanities initiatives, either led by or developed in close consultation with Indigenous researchers and knowledge custodians.

Academic humanists will be found at all levels of these institutions and programs, administering, collaborating, teaching, learning, even if many of these programs were not conceived or organized from within the university. Active engagement with the community from within the university does occur, however, and indeed has become more common since the turn of the century as Australian universities have sought new ways to share knowledge with the public. This has been symbolized and arguably even mandated by the introduction of an "Engagement and Impact" rating into Australia's Excellence in Research for Australia (ERA) research reporting exercise. Most universities host public lectures, issuing invitations to both their alumni and the general

[6] These sorts of societies exist all over; for example, the Melbourne Dickens Fellowship (founded in 1904) is thriving and meets monthly, and there is a lively Jane Austen Society, too. The Johnson Society of Australia, founded in 1993, was the first and still the only society of its kind in the Southern Hemisphere (celebrating the life of Samuel Johnson) and has members from around Australia and from other countries, including the United States, Britain, New Zealand, and Japan.

[7] See, for example, Robert R. Janes and Richard Sandell, eds., *Museum Activism* (London: Routledge, 2019), and Kylie Message, *Museums and Social Activism: Engaged Protest* (London: Routledge, 2013).

public. These are exercises in knowledge translation and to some extent affirmation, in which university experts introduce major writers and thinkers to an interested public. Some universities stage regular series of such lectures, like the Australian National University's series on "great books" (Books That Changed Humanity) and on "great ideas" (Works That Shaped the World).

The focus of many university-initiated public humanities activities is on inequality in education and on widening community participation in learning. On its website, the University of Newcastle states that it "has a strong commitment to social justice" and that "[a] number of programs and projects exist to increase understanding of and improve access to higher education for school students and community members from diverse backgrounds."[8] Some of these programs are focused exclusively on the needs of the underprivileged.

Fifty years ago, Australian literary scholars began holding poetry classes in prisons and a first generation of Australian prison poets emerged; now literature and the performing arts are a regular feature of low- and medium-security prison life. The Queensland Conservatorium at Griffith University, for example, along with Griffith's School of Criminology and Criminal Justice and School of Education, currently has an Australian Research Council Linkage project with Serco Asia Pacific titled "Captive Audiences," which investigates the extent and efficacy of creative arts programs in prisons. As in other countries of the world, these programs are increasing in number, scope, and sophistication and attracting more and more scholarly, governmental, and media attention.[9] There is ample evidence to suggest that poetry and theater, music, and dance contribute to prisoner well-being and rehabilitation and that they are therefore becoming a valued part of the correctional system.

The idea that there is such a thing as "public humanities" may come as a surprise to those who regularly go to libraries, museums, and galleries or attend literary festivals, public lectures, and other similar events. Would they be similarly unaware if they were at a public science event? Perhaps it is a measure of the ubiquity of the activities involved in public humanities—reading, viewing, reflecting, interpreting, evaluating, sharing—that prevents us from realizing

[8] University of Newcastle, "School and Community Programs," accessed March 21, 2022, https://www.newcastle.edu.au/community-and-alumni/community-engagement/community-and-school-programs.

[9] See, for example, Michael Balfour, Brydie-Leigh Bartleet, Linda Davey, John Rynne, and Huib Schippers, eds., *Performing Arts in Prisons: Creative Perspectives* (Bristol: Intellect, 2019).

the extent to which we live in a large humanities ecosystem. Whatever the case may be, there is no denying that this ecosystem includes and is variously informed by humanistic activities as it is practiced inside the university.

Humanities and Public Policy

Kylie Brass

Operating Context

At a time when societies around the globe are facing complex challenges, such as the impact of mis- and disinformation on our political cultures or the question of ethical technological advancement, humanities expertise is a vital part of the collective effort. Despite the broad appeal of the humanities in public life and the wide application of humanities expertise and flow of graduates, underpinning the education system and contributing across communities, government, the professions, and the economy, the humanities are routinely characterized as "in decline" or "deficit" (most recently, in the context of student fee reforms in universities, as lacking "job readiness") or as somehow "extracurricular" or "excessive" (nice to have but not essential). The evidence paints a different picture. Like their counterparts in the sciences and social sciences, the humanities are a vital, dynamic part of the nation and make a unique contribution to a range of policy agendas, including higher education, research, and innovation; history and heritage; culture, language, and creative industries; social welfare and inclusion; tourism and regional development; human rights and technology; and digital transformation and the future of artificial intelligence (AI).

A major mapping study of the humanities, arts, and social sciences (SHAPE) in Australia in 2014 showed that collectively these fields taught 65 percent of Australia's students with 52 percent of the staff, that 60 percent of tertiary-educated Australians had a SHAPE degree, and that, while SHAPE fields of research generated only 16 percent of the nation's research income and received 28 percent of higher education R & D investment, they were responsible for 34 percent of the nation's research outputs.[44] At a macro level, these data points showed a resilient sector, but there was also evidence of disinvestment, declin-

[44] Graeme Turner and Kylie Brass, *Mapping the Humanities, Arts and Social Sciences in Australia* (Canberra: Australian Academy of the Humanities, 2014), see "Executive Summary."

ing share of total enrollments, rising staff–student ratios, and ad hoc workforce planning. Since the publication of that report, the evidence is mounting that the humanities are under further pressure. The impact of COVID-19 and a new series of higher education reforms raise doubts that the resilience the sector has shown until now can be sustained into the future.

Job Ready?

In 2020 the Australian government introduced the Job-Ready Graduates Package (JRG), which restructured university fees to steer prospective students away from humanities knowledge and its foundation in critical inquiry and toward courses claimed to make graduates "job ready."[45] This was despite evidence from graduate outcomes and census data showing that humanities graduates have either equaled or outperformed science and math graduates in full-time employment and labor force participation in 2017–20[46] and that they are in demand in sectors projected for substantial growth and expected to resist automation.[47]

As the government's new higher education legislation was debated in parliament in 2020, there was a groundswell of public support for arts degrees, including in expert testimony before a Senate committee.[48] The bill subsequently passed by only one vote; the real impact of the policy shift on both student and institutional choice remains to be seen. There are concerns that the reforms will

[45] Commonwealth Department of Education and Training, "Job-Ready Graduates Package," accessed September 5, 2021, https://www.dese.gov.au/job-ready. Under the new model, total funding for humanities subjects in the society and culture cluster has increased, in recognition of the historic underfunding of these subjects, but the cost has shifted to the student, who now bears 93 percent of the share (up 113 percent or $14,500 per annum), with the Commonwealth support at 7 percent or $1,100 per annum. The differential funding model impacts social sciences fields as well. English literature now joins languages in a higher-funded cluster.

[46] Based on graduate outcomes reported in the *2020 Graduate Outcomes Survey—Longitudinal* (GOS-L) published in August 2020, https://www.qilt.edu.au/resources?survey=GOS-L&type=Reports. In line with earlier graduate surveys, the 2020 survey found that graduates with generalist degrees (whether in SHAPE or STEM fields) have weaker employment outcomes initially, but this gap closes over time. In 2017, the lowest percentage of undergraduates finding full-time employment in the short term was observed in following fields: 53.4 percent for creative arts, 61.6 percent for science and mathematics, 61.9 percent for humanities, culture, and social sciences, and 62.0 percent for psychology. Three years later, all of these fields saw significant increases in the ability of graduates to find full-time employment, such that medium-term outcomes were 79.4 percent for creative arts, 87.1 percent for sciences and mathematics, 87.0 percent humanities, culture, and social sciences, and 87.2 percent for psychology.

[47] Australian Academy of the Humanities, *Future Humanities Workforce* report (forthcoming).

[48] Higher Education Support Amendment (Job-Ready Graduates and Supporting Regional and Remote Students) Bill 2020, https://www.aph.gov.au/Parliamentary_Business/Bills_LEGislation/Bills_Search_Results/Result?bId=r6584.

create perverse outcomes, with the differential funding acting as a disincentive for students to adopt a multidisciplinary approach to their studies (rather than encouraging students studying engineering or AI to take philosophy and ethics, for example) and with universities provided with a lower level of funding overall to teach STEM courses. The study of Indigenous culture and history (Funding Cluster 1) is now more expensive for students than studying medicine (Funding Cluster 4).[49] There is also a risk of further disenfranchising students from Indigenous backgrounds, low socioeconomic status, and those from rural and remote communities, making it harder for those who aspire to and succeed at university in subjects of social, economic, cultural, and local community value such cultural heritage, tourism, and archaeology.

A government review of the operation and impact of the JRG Package is scheduled for late 2022. Early evidence suggests that the policy measure did not deter students from undertaking SHAPE subjects in 2021.[50] However, the full impact of the reforms is not yet clear in the context of the ongoing uncertainty of the COVID-19 pandemic. Due to border closures and lockdowns, there has been a downturn in the number of international students across the university sector, with flow-on impacts on university research budgets. Universities were excluded from the government's pandemic income support measures, and the sector has reported significant job losses and department closures.[51] The volatility of the last few years presents a major challenge to the humanities disciplines and public access to the knowledges they cultivate.

The study of Indigenous culture and history is now more expensive for students than studying medicine.

Census and labor market data have consistently demonstrated that Australian humanities graduates underpin a number of vital sectors, including education and publication administration, and have strong employment outcomes, especially in the long term. Evidence further shows that humanities graduates are

[49] "Funding Clusters and Indexed Rates," Department of Education, Skills and Employment, accessed March 21, 2022, https://www.dese.gov.au/higher-education-loan-program/approved-hep-information/funding-clusters-and-indexed-rates.

[50] Andrew Norton, "Has Job-Ready Graduates Increased the Number of Commencing Students?," March 25, 2021, https://andrewnorton.net.au/2021/03/25/has-job-ready-graduates-increased-the-number-of-commencing-students/.

[51] Andrew Norton, "Would Universities Have Received JobKeeper under More Favourable Rules?," July 6, 2021, https://andrewnorton.net.au/2021/07/06/would-universities-have-received-jobkeeper-under-more-favourable-rules/.

trained in the skills Australian companies say they need—creativity, initiative complex problem-solving, leadership, and emotional intelligence—along with specific capabilities vital to Australia's future, such as the study of China's cultural, trade, and political systems or the culture and history of Australia's First Nations people. The humanities also provide the underpinning skills to support the cultural and creative industries, one of the fastest-growing sectors of the economy.

Yet the role of humanities training as "source code" for the cultural and creative economy is underrecognized in Australia. A 2019 report from the government's Bureau of Communications, Arts and Regional Research (BCARR), *Creative Skills for the Future Economy*, provides a rich analysis of the opportunities for creative skills across the Australian economy, in and beyond the cultural and creative sector.[52] There is a common misconception, the report notes, that creative skills are found solely in creative fields, such as the performing and visual arts. BCARR's research shows there is a strong demand and application for workers in the humanities fields, notably media and communications, which is one of the most likely qualifications to be held by those employed in creative occupations, wherever they are across the economy. Creative skills also contribute to innovation-intensive industries. The most innovation-active sector in the Australian economy (information, media, and telecommunications) has the highest portion of employees holding creative qualifications of any industry.[53]

The role of humanities training as "source code" for the cultural and creative economy is underrecognized in Australia.

The creative and cultural sectors are major employers in Australia's regions, including the island state of Tasmania and regional Queensland (known for its mining and agriculture). Indeed, throughout regional Australia, creative industries are bigger employers than both mining and agriculture. Research from the Regional Australia Institute (RAI) identifies the creative industries as one of four sectors that are "key for the economic future of regional Australia."[54]

[52] Bureau of Communications, Arts and Regional Research, *Creative Skills for the Future Economy* (Canberra: Department of Communications and the Arts, 2019), https://www.arts.gov.au/publications/creative-skills-future-economy.

[53] Bureau of Communications, Arts and Regional Research, *Creative Skills for the Future Economy.*

[54] Hayley Achurch, *Regional Growth Prospects: Strategic Investment in Food Processing, Tourism, Advanced Manufacturing and Creative Industries* (Canberra: Regional Australia Institute, 2019), http://www.regionalaustralia.org.au/home/wp-content/uploads/2019/06/RAI_SIP-2018-2-3-1_RegionalGrowthProspects_WEB_Final.pdf.

The clear evidence of employment outcomes and participation across a broad range of industries provides a challenge to the underlying policy rationale for the JRG reforms and the strategic policy agenda that maintains a focused commitment to STEM (in both funding programs and rhetoric) while remaining silent on the future of the SHAPE disciplines. This policy approach sends signals that further entrench a divide between SHAPE and STEM, at a time when the world grows increasingly interconnected and complex and requires the mobilization and support of researchers and ideas from across the disciplines.

University research is increasingly organized around large-scale problems, such as environmental sustainability or ethical technology, problems that cut across disciplinary boundaries. While the more established universities, such as those making up Australia's Group of Eight, might have conventional disciplinary formations reflected institutionally (for example, departments of history or English), they are also increasingly moving toward interdisciplinarity, especially through establishment of problem-based research centers or hubs. The University of Sydney's humanities-founded Sydney Environment Institute, for example, brings together social, cultural, historical, political, and economic perspectives to create strategies for dealing effectively and justly with ongoing transformations of the planet.[55] Many newer universities, such as Western Sydney University (WSU), are organized around interdisciplinary schools and research institutes rather than disciplinary clusters (for example, WSU's Writing and Society Research Centre).

Nor does industry neatly divide along SHAPE and STEM lines.

There are clear interdependencies between STEM and SHAPE fields in innovative businesses and the economy more broadly.[56] A case in point is the resources sector, which currently contributes around 8 percent of Australia's gross domestic product (GDP). This sector relies on archaeologists and anthropologists trained in SHAPE fields to undertake the cultural heritage and ethnographic surveys required ahead of mining development. Fifty-five percent of professional archaeologists are employed in the private sector undertaking cultural heritage work, and these roles have expanded over the past two decades

[55] University of Sydney, "Sydney Environment Institute," accessed March 21, 2022, https://sei.sydney.edu.au/.

[56] Stuart Cunningham et al., *Skills and Capabilities for Australian Enterprise Innovation* (Australian Council of Learned Academies, 2016), https://acola.org/wp-content/uploads/2018/08/saf10-skills-capabilities-enterprise-report.pdf.

to service the expanding resources sector.[57] Ninety-seven percent of professional archaeologists had a minimum qualification of a pass degree in the broad field of education focusing on society and culture. The Native Title Anthropologist Grant Program, funded by the Attorney-General's Department, seeks to fill the skills gap of anthropologists able to support the resolution and management of native title, key to Australia's social and economic future.[58]

Another example of the critical interdependencies between STEM and SHAPE is the development of AI and other emerging forms of automated decision-making. The social, legal, and economic consequences of AI and automation have been recognized as a high-priority field for current research, education, and policy development by the Commonwealth government's Technology Investment Roadmap, in reports by the Australian Human Rights Commission and the Australian Council of Learned Academies, and in a series of recent major national research investments, including the new humanities-led ARC Centre of Excellence for Automated Decision-Making and Society (profiled in case study 6).[59] These developments underline the need for the technological sciences to engage directly with the social sciences and humanities and vice versa, in both research and teaching programs.

Challenges and Opportunities in Higher Education and Research

Over the past twenty years there has been an increased focus within Australian universities and government higher education policy on research rather than teaching and on building strengths in medical, engineering, the biological sciences, and applied research. In response to this shift, the humanities have positioned themselves as more overt partners to STEM and more visible contributors

[57] Australian Academy of the Humanities, "Submission to the Higher Education Support Amendment (HESA) Bill 2020, Job-Ready Graduates and Supporting Regional and Remote Students," August 2020, https://www.humanities.org.au/wp-content/uploads/2020/08/200817-AAH-Policy-Job-Ready-Legislation_final.pdf.

[58] Geraldine Mate and Sean Ulm, "Another Snapshot for the Album: A Decade of Australian Archaeology in Profile Survey Data," *Australian Archaeology* 82, no. 2 (2016): 168–83.

[59] See Commonwealth Department of Industry, "Science, Energy and Resources, Technology Investment Roadmap Discussion Paper," May 2020, https://www.industry.gov.au/data-and-publications/technology-investment-roadmap-first-low-emissions-technology-statement-2020; Human Rights Commission, "Human Rights and Technology Project," accessed September 5, 2021, https://humanrights.gov.au/our-work/rights-and-freedoms/projects/human-rights-and-technology; Toby Walsh, Neil Levy, Genevieve Bell, Anthony Elliott, James Maclaurin, Iven Mareels, and Fiona Wood, *The Effective and Ethical Development of Artificial Intelligence: An Opportunity to Improve Our Wellbeing* (Australian Council of Learned Academies, 2019), https://acola.org/wp-content/uploads/2019/07/hs4_artificial-intelligence-report.pdf; ARC Centre of Excellence for Automated Decision-Making and Society, https://www.admscentre.org.au/.

to a national policy dominated by a science, technology, and innovation agenda. Humanities research is predominantly undertaken within the higher education system, where most researchers are employed.[60] This distinguishes Australia from many of its international counterparts, where there is often more industry funding of research and a higher proportion of researchers work outside the university sector. Since the 1980s, the university system has been transformed by a process of massification, with further periods of expansion into the twenty-first century through the uncapping of student places and an internationalization agenda that has driven fee-paying international student numbers to account for more than a quarter of the system, prior to the COVID-19 pandemic.[61]

The federal government provides the largest single quantum of funding for higher education and research in Australia. Research block grants (RBGs) represent the largest single component of research funding for universities and are calculated on the basis of research income generated and research training completions. The funding formula has changed over time, and now industry income is weighted equally to competitive public funding. This has introduced volatility into the system, given that industry income can vary considerably year by year.[62]

Australia's research system has tilted progressively toward applied research, with the most recent research policy announcement from the federal government signaling a demand for a higher allocation of Australian Research Council funds toward the government's six manufacturing priorities.[63] That this has occurred without an overarching strategy for the research and innovation system (the most recent comprehensive review was in 2008) raises concerns that

[60] Turner and Brass, *Mapping the Humanities, Arts and Social Sciences*.

[61] See Antonia Finnane et al., *Australian-Asian Research Collaborations in the Humanities: Mapping the Present, Planning the Future* (Australian Academy of the Humanities, 2020), https://humanities.org.au/wp-content/uploads/2021/08/Australia-Asia-Collaboration-Volume-1.pdf. The policy of meeting demand and "uncapping" the number of student places has been superseded.

[62] Department of Education, Skills and Employment, "Calculating Research Block Grants," accessed September 5, 2021, https://www.dese.gov.au/research-block-grants/research-block-grants-calculation-methodology.

[63] "Letter of Expectations," from the Acting Minister for Education and Youth to the Australian Research Council, December 2021, https://www.arc.gov.au/letter-expectations-minister-arc. The ARC is one of two competitive funding bodies in Australia, operating alongside the National Health and Medical Research Council (NHMRC), which provides funds for clinical research.

this shift has been reactionary rather than strategic.[64]

Data from Australia's Group of Eight universities shows that the shift toward applied research has seen fundamental research income decline across the board since 2014, when it was $1.8 billion per year (or 48 percent of total research income). In 2017 those figures dropped to $1.6 billion, or 40 percent of all research income.[65] Concern over the declining support for fundamental research is a common refrain from research leaders and organizations across the disciplinary spectrum. Fundamental research across all fields gives the research and innovation system its core capacity. It provides the platform for multidisciplinary approaches to problem-based research and ultimately enables Australia to identify emerging opportunities in its global engagements and to prepare for and respond to unforeseen economic, health, environmental, and societal challenges.

In the humanities and creative arts (HCA) fields, contestable, merit-based funding through Australian competitive grants is a major source of funding, but over the ten-year period from 2006 to 2016 there has been change in the composition of total funds. In 2006 HCA fields derived 55 percent of their research income from Australian competitive grants, 17 percent from other public sector sources, 24 percent from industry, and 4 percent via the Cooperative Research Centres (CRC) scheme. By 2016, while competitive research income was still the largest source of funding, it represented 47 percent of the total, with other public sector sources at 22 percent, industry income rising to 27 percent, and CRC income increasing to 5 percent.[66] This trend is part of a system-wide dynamic and is likely to continue. (See appendix B for further analysis and data tables.)

There are distinct opportunities and challenges for the humanities in the current funding landscape. Australia's Chief Scientist Cathy Foley has recognized the need to mobilize research capacity across the research sector, publicly

[64] The Bradley Review was the last whole-of-system review. See Denise Bradley, Peter Noonan, Helen Nugent, and Bill Scales, *Review of Higher Education: Final Report* (Canberra: Department of Department of Education, Employment and Workplace Relations, 2008), available at https://apo.org.au/node/15776. On the question of the shift to applied research, see Duncan Ivison, "Australia's New Research Direction Is a Road to Nowhere," *Times Higher Education*, January 7, 2022, https://www.timeshighereducation.com/blog/australias-new-research-direction-road-nowhere.

[65] Group of Eight, *Priority, Directions 2: Three Essentials for Economic Success* (Canberra: Group of Eight, 2019), http://go8.edu.au/wp-content/uploads/2019/05/Go8-PriorityDirections2.pdf.

[66] These figures are based on reports prepared by the Australian Research Council's Excellence in Research for Australia, which collects HERDC data and maps it to fields of research, https://www.arc.gov.au/excellence-research-australia/era-reports.

stating that "science cannot do it alone."[67] This is plainly true in the COVID-19 context and in the context of climate change. As Australia transits to a clean-energy economy, for example, a recent report by the Australian Council of Learned Academies found that, while the country had strong capacity in "science, engineering and technology related energy research," a "successful energy transition must also engage people in the context of their lives, jobs and communities." The report called for "urgent research in the humanities, arts and social sciences … to address these issues."[68]

Despite these calls, and given the size of the research funding system, there are relatively few grant programs for strategic multidisciplinary research. During the COVID pandemic, the major funding agencies (the Australian Research Council and the National Health and Medical Research Council), unlike their counterparts in Canada and the UK, for example, did not issue specific calls for COVID-related multidisciplinary research.

In Australia, there are relatively few programs and incentives for the humanities to build at scale across institutions. One of the few sources for longer-term contestable research funding is the ARC's Centres of Excellence program, a flagship program for building focal points of research expertise on areas of national significance. The size of the program and funding ($34.3 million average in 2020) drives critical mass and collaboration at scale and underwrites the development of a next generation of research leaders. This is one of the most relevant aspects of the Centre infrastructure—it drives workforce transformation, develops talent, and can be more ambitious and innovative than traditional institutional formations.

Since its inception in 2003, the program has funded seventy-four centers totaling more than $1.9 billion.[69] In the last four rounds (2011, 2014, 2017, and 2020), the ARC has awarded just over $1.21 billion to forty-three centers. The scheme supports projects that aim to advance knowledge on a global scale and to work on large-scale problems over extended periods of time, with funding of up to $5 million per year granted for a period of seven years. These research programs are highly collaborative in nature and involve partnerships across and between institutions and with industry, government, and nongovernment

[67] Australia's Chief Scientist, "Dr. Cathy Foley Delivers National Press Club Address," March 2021, https://www.chiefscientist.gov.au/Dr-Cathy-Foley-delivers-National-Press-Club-Address.

[68] Drew Clarke, Ken Baldwin, Fran Baum, Bruce Godfrey, Sue Richardson, and Libby Robin, *Australian Energy Transition Research Plan* (Canberra: Australian Council of Learned Academies, 2021), https://acola.org/wp-content/uploads/2021/06/acola-2021-australian-energy-transition-plan.pdf.

[69] Figures not adjusted.

sectors in Australia and abroad. They often have a significant impact on the wider community through interaction with educational and cultural institutions, government departments, industry, and private and not-for-profit organizations.

Seen over time, investment through this program has built chains of infrastructure for the sciences but less so for the humanities (or social sciences). Relative to the size of these disciplines, the success rate for SHAPE in the scheme has been weak and varied, which is, in part, a function of the model itself and challenges related to the "fit" of the humanities to a science model of research in terms of both scale and the nature of collaboration.

In the humanities, there have been four centers, one in each round since 2011: Centre of Excellence for the History of Emotions; Centre of Excellence for the Dynamics of Language; Centre of Excellence for Australian Biodiversity and Heritage (profiled in case study 1); and Centre of Excellence for Automated Decision-Making and Society (case study 6). The Centre for the History of Emotions was built, at least in part, on the foundations of an earlier ARC network program (no longer in operation), which in effect provided its building blocks (the ARC Network for Early Modern Studies). Prior to 2011, a Special Research Initiative (SRI) provided funding for a Centre of Excellence for Creative Industries and Innovation at the Queensland University of Technology in 2005 (appendix C). There has been increased humanities engagement with the Centres of Excellence program over time and more proactive recognition and recruitment of humanities expertise into conventional science and technology–focused centers, such as the Centre of Excellence for Electromaterials Science, which has an ethics, policy, and public engagement stream led by humanities researchers.[70]

The question arises, what is missing from the landscape? Are there areas of real strength or opportunity in the humanities not reflected in the Centres of Excellence structure? More broadly, what are Australia's priorities for social, cultural, economic, and environmental research? It is certainly the case that the current national science and research priorities (SRP) are narrowly STEM focused and overdue for review.[71] There are indicators of a range of priorities of national significance that fall outside the current SRP rubric. In successive national research infrastructure roadmaps, a SHAPE (formerly HASS) capa-

[70] Australian Research Council Centre of Excellence in Electromaterials Science, "Ethics, Policy and Public Engagement," accessed September 5, 2021, https://electromaterials.edu.au/research-areas/ethics-policy-and-private-engagement/.

[71] Department of Industry, Science, Energy and Resources, "Science and Research Priorities," accessed September 5, 2021, https://www.industry.gov.au/data-and-publications/science-and-research-priorities.

bility has been scoped.[72] In addition, the 2020 investment plan included a three-year $8.9 million investment to "develop targeted national Humanities, Arts and Social Sciences … and Indigenous eResearch data tools and platforms to improve the way researchers discover, access, curate and analyse Australia's social, cultural, heritage and Indigenous data."[73]

Another indicator of the importance and potential of other priority areas of national significance and impact is provided by the impact case studies, which scored highly in the ARC's Engagement and Impact exercise. Examining the humanities and arts fields of research codes reveals that of the thirty-five case studies ranked "high" (with humanities and arts as a primary assessment code), more than 74 percent (twenty-five) fall outside the SRPs.[74] This raises the question of whether the SRPs as applied to publicly funded programs are equal to the task of incentivizing research, building capacity, or responding to challenges and opportunities in areas such as investigating and supporting creative industries as an entrepreneurial system; transforming research, policy, and practice to maximize the benefits of digital technologies for young people; reconnecting Indigenous Australian communities with heritage objects held in museums and galleries; and challenging and countering Islamophobia. These four examples are among the highly ranked impact case studies that did not indicate an alignment with any of the current SRPs.

International research collaboration is a key feature of the Australian research landscape and will be vital for Australia's future. Increasing the international connectedness and depth of international engagement in research and global conversations is fundamental to the vitality of the humanities in Australia. In terms of strategic initiatives, the Australian government runs a number of bilateral education and research programs through the Department of Foreign Affairs and Trade, the Department of Education, Skills and Employment, and the Department of Industry, Innovation and Science. A number of these investments aim to build knowledge and exchange between Australia and key countries in the Asia region. The two international research schemes administered by the Department of Industry are with China and India; over the past ten years they

[72] Department of Education, Skills and Employment, "National Research Infrastructure," accessed September 5, 2021, https://www.dese.gov.au/national-research-infrastructure. Note that "HASS" is referred to rather than "SHAPE."

[73] Department of Education, Skills and Employment, *2020 Research Infrastructure Investment Plan*, https://www.dese.gov.au/2020-research-infrastructure-investment-plan/resources/2020-research-infrastructure-investment-plan.

[74] Australian Research Council, "Impact Studies," available at the ARC's data portal, https://dataportal.arc.gov.au/EI/Web/Impact/ImpactStudies.

have focused almost exclusively on STEM priorities.[75] There are underrealized opportunities to expand the program's focus, which India has recommended. Its Australia Economic Strategy (AES) recognizes that, while there is evidence of strong partnership at the individual researcher level, a research fund, with a contribution of US$10 million from each country, focusing on humanities and social sciences, could facilitate greater collaboration with Australian universities.[76]

A new Global Science and Technology Diplomacy Fund, announced in the federal budget in May 2021, aims to consolidate existing programs, and future schemes may be more conducive to SHAPE research if a thematic approach is taken that factors in human, social, and cultural dimensions to the joint agenda. The landscape for international engagement has become more challenging in recent times, particularly due to broader geopolitical tensions and heightened concerns regarding "foreign interference." The Australian government established a University Foreign Interference Taskforce in August 2019 and a Joint Parliamentary Inquiry into National Security Risks Affecting Higher Education.[77] In late August 2020, the federal government announced an intention to introduce an Australian Foreign Relations Bill, which would allow it to "cancel and prohibit arrangements, memoranda and partnerships that are not consistent with Australia's foreign relations" or in the "national interest." Among the proposed measures that would be implemented under this approach, Australian universities will be required to monitor their engagements. In 2020, a number of high-profile cases of Chinese involvement in science and technology collaboration gained widespread media attention. The humanities are less immediately impacted by this agenda, and indeed humanities research is arguably paramount to building trusted relationships on the basis of deep cross-cultural knowledge and expertise.

Nevertheless, the humanities disciplines have been impacted by the appli-

[75] Department of Industry, Science, Energy and Resources, "Collaborating with India on Science and Research," accessed September 5, 2021, https://www.industry.gov.au/funding-and-incentives/collaborating-with-india-on-science-and-research; "Collaborating with China on Science and Research," accessed September 5, 2021, https://www.industry.gov.au/policies-and-initiatives/increasing-international-collaboration/collaborating-with-china-on-science-and-research.

[76] Confederation of Indian Industry, *Australia Economic Report*, 2020, https://aes2020.in/chapters/5-focus-sectors/education/.

[77] Department of Education, Skills and Employment, "Guidelines to Counter Foreign Interference in the Australian University Sector," accessed September 5, 2021, https://www.dese.gov.au/guidelines-counter-foreign-interference-australian-university-sector; Parliamentary Joint Committee on Intelligence and Security (PJCIS), "Inquiry into National Security Risks Affecting the Australian Higher Education and Research Sector," https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Intelligence_and_Security/NationalSecurityRisks; Finnane, *Australian-Asian Research Collaborations in the Humanities*.

cation of the new National Interest Test (NIT). The federal minister for education and youth recently invoked the NIT to exercise the power to veto grants recommended for funding by the ARC that have otherwise met lengthy and strenuous peer-review tests of excellence, national benefit, and value for money by the ARC College of Experts.[78] The NIT was introduced in 2018 as part of the ARC grant funding application process to determine "the potential to have economic, commercial, environmental, social or cultural benefits to the Australian community."[79] A recent veto, announced on December 24, 2021, affected six projects, all in the humanities, and included projects on youth climate activism and two China-focused projects, one seeking to understand the popular mood in China, the other the politics of memory. In practice, the NIT has put a political frame around the creation of new knowledge. The latest action drew universal condemnation from across the research system, including from organizations representing the STEM fields, of what has been perceived as an arbitrary use of the ministerial veto and calls for the process to be free from political interference.[80]

From a public-policy standpoint, perhaps the most prolific areas of research policy over the past decade has been the effort to incentivize industry-research collaboration. Most recently there have been public consultations and inquiries into research impact and engagement, research commercialization, and a new National Priorities and Industry Linkages Fund. The narrative goes that the humanities are not well disposed toward collaboration with industry or research translation and commercialization, but this does not add up.

The narrative goes that the humanities are not well disposed toward collaboration with industry or research translation and commercialization, but this does not add up.

At a team and individual researcher or institutional level, humanities engage with industry partners through the long-standing ARC's Linkage program,

[78] Julie Hare, "College of Experts Says Minister Is No Expert on Research Grants," *Australian Financial Review*, January 19, 2022, https://www.afr.com/policy/health-and-education/college-of-experts-says-minister-is-no-expert-on-research-grants-20220119-p59pid.

[79] Hon. Dan Tehan, MP, "Strengthening Public Confidence in University Research Funding," Minister for Education, October 31, 2018, https://ministers.dese.gov.au/tehan/strengthening-public-confidence-university-research-funding.

[80] See, for example, evidence before the Senate Committee on Education and Employment legislation, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/ARCBill.

which "promotes national and international research partnerships between researchers and business, industry, community organizations and other publicly funded research agencies."[81] The success rate for the humanities and arts in the Linkage projects scheme is much better than that for other schemes, as is the case across the board (refer to appendix C); whereas success rates for the ARC's Discovery projects scheme averages 20 percent, the rate for the Linkage projects scheme is generally 35 percent or above). Until recently, there had been clear opportunities to increase engagement in the Linkage program. With the latest ministerial directive for the ARC to allocate 70 percent of the entire Linkage program funds (including Centres of Excellence, Linkage Projects, and infrastructure and equipment schemes) to the government's six manufacturing priorities, it remains to be seen whether SHAPE researchers can maintain the field's level of success in Linkage projects, let alone grow participation in the program overall.[82]

The ARC also administers the Industrial Transformation Research Program (ITRP), which funds research hubs and research training centers and supports Higher Degree by Research students and postdoctoral researchers in gaining real-world practical skills and experience through placement in industry. The Industrial Transformation Research Hubs and Industrial Transformation Training Centres have a remit to engage "Australia's best researchers in issues facing the new industrial economies and training the future workforce."[83] Since 2012 thirty-nine industry hubs have been funded to a total of $154,127,064, and since 2013 forty-nine training centers have received funding totaling $182,226,376. The research training component is literally in the business of building future workforces. To date the scheme has aligned with the government's Industry Growth Centres.[84] Considerable benefits would flow from expanding the scope of this scheme to accommodate a creative and cultural industries growth agenda (not currently included on the government's priority list of industries). This would ensure that these industries can adapt, thrive, and meet current and future digital, social, and economic disruption. An encouraging sign is the inclusion of a Training Centre for Behavioural Insights for Technology Adoption and a Training Centre for

[81] Australian Research Council, "Linkage Program," https://www.arc.gov.au/grants/linkage-program/linkage-projects.

[82] The six manufacturing priorities are: resources technology and critical minerals processing; food and beverage; medical products; recycling and clean energy; defense; and space.

[83] Australian Research Council, "Industrial Transformation Research Program," https://www.arc.gov.au/grants/linkage-program/industrial-transformation-research-program.

[84] Department of Industry, Science, Energy and Resources, "Industry Growth Centres," accessed March 21, 2022, https://www.industry.gov.au/policies-and-initiatives/industry-growth-centres.

Healing Country, both awarded funding in the 2021 round.[85] The recent shift to focus on manufacturing priorities may impact future funding allocations.

Humanities for Times of Crisis

The COVID-19 pandemic has placed the whole higher education system and its workforce at risk, with the loss of income from international students jeopardizing both the quality of educational provision and research funding (the latter cross-subsidized by international student fees).[86] In many respects, COVID-19 has compounded existing gaps, vulnerabilities, and inequities. In some areas there may be a return to "business as usual," but in others disruption caused by COVID-19 will necessitate redesigning, rebuilding, and transformation.

In Australia, the COVID-19 pandemic followed on quickly from a summer of unprecedented bushfires. Research responsiveness and capability in these urgent challenges were the subject of two reviews. The federal Department of Industry, Innovation and Science and the Office of Chief Scientist undertook two separate information-gathering exercises to map Australia's research activity and responsiveness and determine the capabilities needed for immediate, medium, and long-term recovery. Both exercises documented a range of relevant research taking place across the disciplines and across institutions. The chief scientist's report, *Bushfire Research and Technology: Mapping Australia's Capability*, published in June 2020, took a narrow focus on bushfires rather than broaden the map of capability to incorporate research expertise in areas where comparative approaches would be instructive.[87] This would have included natural disaster and hazards, climate change, water management, and responsiveness to extreme events.

A Royal Commission into National Natural Disaster Arrangements took a more holistic approach and heard evidence from humanities and social sciences researchers about community needs, practices of Indigenous cultural burning, and improved conduits for research into policy. The Royal Commission has also partnered with the National Museum of Australia to record the stories of

[85] Australian Research Council, "Industrial Transformation Research Program Funding Announcement," July 2021, https://www.arc.gov.au/news-publications/media/funding-announcement-kits/industrial-transformation-research-program-2021.

[86] "Impact of the Pandemic on Australia's Research Workforce," Rapid Research Information Forum, 2020, https://www.science.org.au/sites/default/files/rrif-covid19-research-workforce.pdf.

[87] Office of the Chief Scientist, *Bushfire Research and Technology: Mapping Australia's Capability* (Canberra: Office of the Chief Scientist, 2020), https://www.chiefscientist.gov.au/sites/default/files/2020-08/Office%20of%20Chief%20Scientist%20Bushfire%20Research%20and%20Technology%20Capability%20Map%20June%202020.pdf.

the bushfires from communities across Australia through the 2019–20 Bushfire History Project.[88] Evidence indicated that multidisciplinary expertise is not mobilized as effectively as it could be and that outdated interfaces prevent research from reaching decision-makers in a timely way to inform policy development.

In Australia, there is no formal mechanism to channel social and cultural research expertise into government. Whereas a network of chief scientists at both the state and the national levels provides this mechanism for issues of scientific or technical nature, there is no equivalent mechanism for drawing on social and cultural research expertise to provide timely policy advice.

The COVID-19 pandemic revealed opportunities to move away from a siloed approach to problems, in favor of developing closer collaboration between different research areas and more efficient mechanisms for channeling research expertise to decision-making bodies. As part of its immediate response to the COVID-19 pandemic, the Australian government established the Rapid Research Information Forum (RRIF), a platform for rapid information sharing and collaboration within the Australian research and innovation sector.[89] Led by the Australian Academy of Science, in collaboration with the Learned Academies, this forum provided a mechanism for bringing together multidisciplinary expertise and providing expert advice. The focus was not only on the health implications of the pandemic but also on a wide range of other areas, including differential learning outcomes for online versus in-class education; the impact of the pandemic on research workforce capability; and the motivation for sustained use of Australia's contact tracing application (COVIDSafe). This platform holds promise for further developing Australia's capacity for interdisciplinary research and its translation to public policy.

A new Special Research Initiative (SRI) funded by the ARC and focused on Australian society, history, and culture[90] sought applications at the peak of the "first wave" of the pandemic, in April 2020. A number of successful projects sought to address some immediate social and health challenges. Of 692 applications, forty-nine were successful. The 7.1 percent success rate was very low even by ARC standards. Of those forty-nine, the humanities and creative arts secured thirty-seven projects. The focus of the successful projects was also illustrative of

[88] Royal Commission into National Natural Disaster Arrangements, "2019–20 Bushfire History Project," accessed September 5, 2021, https://naturaldisaster.royalcommission.gov.au/2019-20-bushfire-history-project.

[89] Australian Academy of Science, "Rapid Research Information Forum," accessed September 5, 2021, https://www.science.org.au/covid19/rapid-research-information-forum.

[90] Australian Research Council, "Special Research Initiative for Australian Society, History and Culture," accessed September 5, 2021, https://www.arc.gov.au/grants/linkage-program/special-research-initiatives/special-research-initiative-australian-society-history-and-culture.

the range of interest in the humanities in Australia today; fourteen were overtly focused on Aboriginal and Torres Strait Islander research, and the remainder included research on the urban environment and built heritage; water resource management and policy; environment change and crisis, including Indigenous ecological knowledge and critical bushfire readiness; politics, democracy, and citizenship; the state of journalism; domestic violence; disadvantaged local economies; and COVID-19, rethinking medico-legal borders, and Australian understandings of infectious disease in the COVID era. This SRI program is unique in the Australian landscape and is clear evidence of humanities' unmet demand (case study 5).

Case Study 5: Crisis Humanities

Iva Glisic
Kylie Brass

While the dawning of a new year is ordinarily a time of widespread celebration, Australia went into 2020 gripped by one of the most devastating bushfire seasons in the nation's history. A series of intense fires, many of which had been burning for months, would leave a trail of destruction across the country. As December rolled into January, Australians who had become accustomed to an eerily orange sky would begin describing the season as the "Black Summer," while news reports indicated that a thick plume of smoke from the fires had encircled the globe.[1] Indeed, so thick was the smoke that hardware stores across Australia began selling out of face masks, in a portent of what lay ahead.

Although bushfires are integral to Australia's ecology and, in the words of the historian Tom Griffiths, are "scripted into the deep biological and human history of the fire continent," experts noted that the events of summer 2019–20 were "something new in modern Australian experience, something we

[1] See "Australia Suffers Devastating Fires after Hottest, Driest Year on Record," World Meteorological Organization, January 7, 2020, https://public.wmo.int/en/media/news/australia-suffers-devastating-fires-after-hottest-driest-year-record.

can indeed call unprecedented."[2] As part of its response to the bushfire season, the Australian government initiated an inquiry into what lessons might be learned from this experience, along with a Royal Commission to investigate national natural disaster arrangements.[3]

Australia's research sector played an active role in these inquiries, with the humanities community emphasizing the urgent need for developing a whole-of-sector approach to addressing the climate crisis. In its submissions to these public inquiries, the Australian Academy of the Humanities highlighted the fact that Australia's reliance on science and technology risks neglecting expertise in the humanities, social sciences, and Indigenous knowledge that are vital for addressing such complex challenges.[4]

As the COVID-19 pandemic took hold of the world, arts and humanities research and practice became vital tools for making meaning of what had repeatedly been termed an "unprecedented" situation. It was by engaging with these disciplines that the public worldwide sought to navigate the medical, economic, and social impacts of the pandemic. As in other parts of the globe, the humanities in Australia sought to engage with and support communities experiencing the challenges associated with social distancing and isolation, which had compounded the strain already caused by the bushfire season.

The response from the humanities sector was rich and varied.

The Australian Research Council Centre of Excellence for the History of Emotions, for example, launched a public-facing project that explored a range

[2] Tom Griffiths, "Savage Summer," *Inside Story*, January 8, 2020, https://insidestory.org.au/savage-summer/. See also Tim Flannery, *The Climate Cure: Solving the Climate Emergency in the Era of COVID-19* (Melbourne: Text Publishing, 2020), 6.

[3] Parliament of Australia, Senate Standing Committees on Finance and Public Administration, "Lessons to Be Learned in Relation to the Australian Bushfire Season 2019–20," https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Finance_and_Public_Administration/Bushfirerecovery; Royal Commission into National Natural Disaster Arrangements, https://naturaldisaster.royalcommission.gov.au.

[4] Australian Academy of the Humanities, "Submission to Royal Commission into National Natural Disaster Arrangements," April 2020, https://www.humanities.org.au/wp-content/uploads/2020/04/AAH-Policy-2020-National-Natural-Disaster-Arrangements.pdf; Australian Academy of the Humanities, "Submission to Lessons to Be Learned in Relation to the Australian Bushfire Season 2019-2020," May 2020, https://www.humanities.org.au/wp-content/uploads/2020/05/AAH-Policy-2020-Bushfire-Inquiry.pdf.

of isolation emotions, from despair and comfort to solitude and friendship.[5] In a series of short videos, researchers shared stories of people living under and dealing with restrictions on their freedom. In some situations these restrictions were self-imposed, recalling the situation in Henry David Thoreau's *Walden*, in which the author describes his effort to lead a simpler live by moving to a cabin in the woods.[6] Elsewhere, restrictions on movement were externally imposed, prompting the Centre's researchers to refer to an example from early modern European history in which those committing a crime would be banished to live outside the city boundaries and to discuss the manner in which banishment is explored in Scottish folk and fairy tales.[7] In each case, isolation, despite its inherent challenges, provided space for reflection, personal growth and discovery.

Australian philosophers sought to help make sense of the current pandemic and inform responses to it. The moral psychologist Jeanette Kennett and the clinical ethics expert Wendy Rogers focused on providing insight into some of the ethical challenges faced by decision-makers and frontline heath workers, particularly at the peak of the crisis as the number of infections soared.[8] Who gets an ICU bed? Who gets access to a respirator? If faced with the choice, should we save the life of someone young or someone old? What currency should a person's preexisting health, wealth, or social status carry? Who should be at the front of the queue when a vaccine becomes available? And who should wait until last? The pandemic has raised many questions about equity in terms of who bears costs, who enjoys benefits, and who wears collateral damage. With their research, Kennett and Rogers provide valuable insight into the processes by which we can make fairer and more consistent decisions in times of crisis.

[5] Australian Research Council Centre of Excellence for the History of Emotions, "The Emotions of Isolation," accessed March 21, 2022, http://www.historyofemotions.org.au/research/research-projects/the-emotions-of-isolation.

[6] Alda Balthrop-Lewis, "Friendship," Australian Research Council Centre of Excellence for the History of Emotions, "The Emotions of Isolation," https://vimeo.com/449936087.

[7] Katie Barclay, "Comfort," Australian Research Council Centre of Excellence for the History of Emotions, "The Emotions of Isolation," https://vimeo.com/449937508.

[8] Through their work at Macquarie University's Centre for Agency, Values and Ethics (CAVE), https://www.mq.edu.au/research/research-centres-groups-and-facilities/resilient-societies/centres/macquarie-university-research-centre-for-agency,-values-and-ethics/research-clusters.

In this context, insight into the ethics of lockdown has been critical. In a range of interviews and online publications, the philosopher Christian Barry explored the different justifications that can be and have been made to defend a policy that results in a substantial restriction of liberties.[9] He examined the paternalistic argument, which justifies restricting people's movements for their own best interest; the altruistic argument, by which the restriction of individuals is justified not for their own good but for the good of others; and the argument centered around preventing excessive harm, which justifies restriction on the basis that limiting individual freedom is necessary to prevent individuals from imposing excessive risk of harm to others. In examining various aspects of each of these three arguments, Barry provided important insight into the question of what kind of restrictions are reasonable for preventing the spread of infection and saving lives. His research also reveals that our moral thinking in emergency situations is different from when we are dealing with chronic problems—an important point to consider if the current health crisis does indeed become "the new normal."

Elsewhere, Australian sleep researchers, psychologists, and philosophers teamed up to examine so-called pandemic dreams, a phenomenon that affected people around the world who reported experiencing more vivid and emotional dreams, many of which shared common themes, such as an inability to complete a task or feeling threatened by others. As part of the effort to understand how global events such as the COVID-19 pandemic influence our inner mental lives, the research team has launched a public survey inviting Australians to share their lockdown dreams.[10]

With Australia's cities in lockdown, the country's art and cultural insti-

[9] See, for example, Christian Barry and Seth Lazar, "Justifying Lockdown," *Ethics and International Affairs*, May 2020, https://www.ethicsandinternationalaffairs.org/2020/justifying-lockdown/; Carnegie Council Webinar Series, "Christian Barry: The Ethics of the Coronavirus Lockdown," June 9, 2020, https://www.youtube.com/watch?v=bQDQcCg4924.

[10] Jennifer Windt, "COVID-19 in Our Dreams: How Do Our Inner Lives Change in the Face of a Pandemic?," Monash University, August 14, 2020, https://lens.monash.edu/2020/08/14/1381053/covid-in-our-dreams-how-do-our-inner-lives-change-in-the-face-of-a-global-pandemic?utm_campaign=MLENS__Arts&utm_source=twitter&utm_medium=organic_social. On pandemic dreams as a global phenomenon, see also Tore Nielsen, "The COVID-19 Pandemic Is Changing Our Dreams," *Scientific American*, October 1, 2020, https://www.scientificamerican.com/article/the-covid-19-pandemic-is-changing-our-dreams/.

tutions were forced to find new and imaginative ways to engage with their audiences. The State Library of Victoria, for example, launched its Memory Bank initiative, inviting Victorians to contribute to its Collective Isolation Project by recording their everyday activities.[11] Each week a new theme was introduced, with Victorians invited to share their lockdown baking projects, ways in which they celebrated important occasions under conditions of social distancing, or images of their "iso-hair" or DIY dye jobs, as Victorians were legally prevented from visiting hairdressers or barber shops. Ultimately the Victorian government would seek to suppress the virus by imposing the harshest restrictions in the world, with its capital, Melbourne (the second largest city in the country), placed under two hard lockdowns, the second of which would last a record 111 days. Under these conditions, Australia's cultural institutions came together in an effort to create a platform for sharing experiences and connecting with other citizens at a time of extreme physical isolation. In describing the State Library of Victoria Memory Bank project, the historian Clare Wright noted that the project provided not only a way to connect people during a difficult period but also an opportunity to develop an archive of primary sources that could capture those idiosyncratic and arbitrary aspects of people's daily lives, aspects that are often lost in a time when we do not often write journals, diaries, or letters.[12] The Collective Isolation Project thus became both a process through which people could make meaning of this pivotal moment in human history and a way to keep a detailed record of it for the benefit of future generations.

The new normal may, however, have some upsides, primarily because the COVID-19 pandemic has provided us with an opportunity to rethink and reimagine our world. As the environmental scientist Tim Flannery notes, "one of the most important lessons from the COVID-19 pandemic is the demonstration of how flexible even long-standing behaviour can be."[13] Indeed, we quickly relinquished international travel and adjusted to working from home; we began to pay more attention to the critical value of low-paid work; and we welcomed universal financial support for those who had lost their livelihoods.

[11] State Library of Victoria, "Memory Bank: The Collective Isolation Project," accessed March 21, 2022, https://www.slv.vic.gov.au/memorybank.
[12] State Library of Victoria, "Author Clare Wright on Memory Bank," https://www.slv.vic.gov.au/memorybank.
[13] Flannery, *The Climate Cure*, 126.

In reflecting on his contribution to the RRIF response on the use of the COVIDSafe application, the philosopher Christian Barry highlighted the imperative for an inclusive, whole-of-sector approach to research and policy challenges.[14] In doing so, he noted that while it is true that the sciences have great deal to contribute to our thinking about current challenges, they do not necessarily dictate any particular response to these challenges. Thinking about how best to respond requires value-based judgment and the associated ability to appropriately weigh different considerations—which is precisely what humanities expertise brings to the policy-making process.

[14] "Interview with Christian Barry," Australian Academy of the Humanities, September 28, 2020 (unpublished).

The humanities make a distinct contribution to Australia's education and research system, which the government's own data on post-university employment demonstrate. At a fundamental level, the humanities are deeply pedagogical disciplines—in the humanities, unlike in the science fields, research and teaching go hand in hand. The proportion of research-only positions in STEM fields far outstrips the proportion in the humanities. That makes one of the distinct products of the humanities their students and graduates. It is also true, despite the headlines, that the humanities are turned toward the public. The relationship between the humanities and their creative applications—gaming, exhibitions, literature, film, and festivals—is rich and long-standing and continues to evolve.

From a public-policy perspective, it might be said that the humanities are hidden in plain sight. In fact, and in practice, the humanities speak to and engage with a range of different publics and a broad range of policy areas and industries (policy development, entrepreneurship, international relations, fintech, education and research). Yet the humanities in Australia are underutilized. They are a rich source of ideas and imagination and have significant potential to further enhance social and cultural well-being and economic development. Mobilizing this expertise will require effort from public policy, from industry, and, importantly, from the humanities themselves.

Humanities' Futures

Iva Glisic
Kylie Brass

The future of humanities research, education, and practice in Australia depends upon the continued availability of a humanities-trained population. In recent times, debate about the future of work and the impact of various forms of disruption—from rapid technological advancement to climate change and shifting demographics—have necessitated a closer examination of the humanities workforce, its strengths and capabilities, and the challenges that it faces. In contributing to this debate, the Australian Academy of the Humanities in 2018 launched the Future Humanities Workforce project, with the aim of investigating the contribution and preparedness of Australia's humanities workforce for the future of work.[91] As part of this inquiry, the project conducted an analysis of career destinations for humanities graduates in Australia.[92] This analysis provides important insight into the wide range of industries that humanities graduates populate and a basis for identifying areas in which humanities training can more closely align with future industry and labor market demands.

Australia's Humanities Workforce

Drawing on Australia census data, the Future Humanities Workforce project has undertaken detailed analysis of where workers holding humanities qualifications are employed across the Australian economy. On this basis, it identifies a list of primary humanities industries (where humanities graduates are working in large numbers) and secondary humanities industries (where they are important, but less concentrated) (see appendix D).

Australia's humanities workforce is distributed across a wide range of industries. The architectural, engineering, and technical services sector is the single largest employer of the humanities workforce. The humanities workforce is also highly concentrated in education (across all levels); government administration (local, state, and federal); creative and performing art activities; and religious

[91] Australian Academy of the Humanities, *Future Humanities Workforce*, https://humanities.org.au/our-work/projects/future-humanities-workforce/.

[92] The analysis is based on a commissioned analysis for the Future Humanities Workforce project. Australian Academy of the Humanities and Research Strategies Australia, *The Humanities Workforce in Australia: Discussion Paper*, 2020 (unpublished).

services.[93] Employment destinations for humanities graduates vary depending on the level of education attained. While the architectural, engineering, and technical services sector is the largest employer of graduates with bachelor's and master's degrees, doctoral-level graduates more often find employment within the education sector (including tertiary, school, and adult education).

Census analysis also provides insight into how training and employment outcomes align. Perhaps unsurprisingly, there is a strong positive correlation between professional employment and the level of academic degree achieved. This correlation should, of course, be considered in the context of various educational and economic trends. First, graduates with bachelor degrees in the humanities are among the most likely to continue with full-time study following graduation.[94] Together with graduates in the field of science and mathematics (of whom 39.5 percent continue with further study) and psychology (35.0 percent), a significant proportion of humanities, culture, and social work graduates continue with further full-time study (26.1 percent).

Employment prospects for humanities graduates are not immune to the trends that shape the Australian economy more broadly. For example, in Australia the 2008 global financial crisis manifested itself not so much in high unemployment rates but rather in the emergence of a weak labor market, slow wage growth, and widespread underemployment.[95] These factors had a particularly adverse impact on younger Australians, with many electing to stay longer in education, in turn creating a highly skilled workforce, which has ultimately faced a labor market that has been unable to absorb workers at a reasonable rate. Young employees throughout Australia have faced significant competition for skilled positions, with many forced to move into occupations that do not match their education. While the Australian Graduate Outcome Survey reveals comparatively strong employment outcomes for humanities graduates, there is no doubt that prevailing labor market conditions have impacted humanities students' career progression.

The COVID-19 pandemic has also impacted all areas of Australia's economy.

[93] Industries of employment relating to education include school education; tertiary education; adult, community, and other education. Religious services includes entities engaged in providing religious services and/or operating facilities such as churches, mosques, religious temples, and monasteries. It also includes entities that administer an organized religion or promote religious activities but excludes schools, colleges, and universities.

[94] Quality Indicators of Learning and Teaching, *2019 Graduate Outcomes Survey*, 20–21, https://www.qilt.edu.au/docs/default-source/gos-reports/2019-gos/2019-gos-national-report.pdf.

[95] Australian Government, Productivity Commission, *Climbing the Jobs Ladder Slower: Younger People in a Weak Labour Market*, July 27, 2020, https://www.pc.gov.au/research/supporting/jobs-ladder.

Preliminary research has shown that the pandemic has had disproportionally adverse effect on women and on young people.[96] The higher education and arts sectors—two industries that are major career destinations for humanities graduates and researchers—have found themselves in a particularly difficult position as they have received limited assistance from government pandemic income support measures.[97] Australia's university sector has also suffered major losses resulting from the absence of income from international students.[98] At the same time, as part of its response to the COVID-19 pandemic, the Australian government has announced relief packages for industries such as architectural services, education, social assistance services, and government administration, which will likely have positive impact on humanities graduates employment prospects in the near future.[99]

Humanities Skills and Knowledge

Discussion about the future of the humanities generally—and the humanities workforce in particular—is often broached through the question of skills. Humanities scholars point out that humanities training should not be thought of as preparation for a single, specific job but rather as a way to develop the skills, knowledge, and modes of reasoning that are beneficial in a wide range of career options. This adaptability helps build a critical mass of workers with a suite of transferable skills as well as the content knowledge required for specific roles, building an agile workforce that can adjust to changing patterns of work and skills requirements.

A public consultation conducted as part of the Future Humanities Workforce (FHW) project revealed that, in addition to specific disciplinary knowledge, humanities training develops strong research skills and the ability to locate, eval-

[96] National Foundation for Australian Women, "Gender Lens on the Budget 2020–2021," October 18, 2020, https://nfaw.org/gender-lens-on-the-budget/gender-lens-on-the-budget-2020-2021/.

[97] Frank Larkins et al., "Impact of the Pandemic on Australia's Research Workforce," Rapid Research Information Forum, May 8, 2020, https://www.science.org.au/covid19/research-workforce; Frank Larkins and Ian Marshman, "COVID-19 Pandemic Research Funding Shortfalls and Workforce Reductions Modelled for Individual Australian Universities," September 2020, https://melbourne-cshe.unimelb.edu.au/lh-martin-institute/fellow-voices/individual-university-research-funding-challenges.

[98] Larkins et al., "Impact of the Pandemic on Australia's Research Workforce"; Emma Johnston et al., "The Impact of COVID-19 on Women in the STEM Workforce," Rapid Research Information Forum, May 17, 2020, https://www.science.org.au/covid19/women-stem-workforce; Larkins and Marshman, "COVID-19 Pandemic Research Funding Shortfalls."

[99] Australian Academy of the Humanities and Research Strategies Australia, *The Humanities Workforce in Australia: Discussion Paper*, 2020 (unpublished).

uate, analyze, and synthesize a wide range of sources, including textual, visual, and musical records.[100] Humanities training aids the development of advanced written and oral communication skills, including the ability to construct sophisticated, evidence-based arguments. It also promotes a human-centered approach to problem-solving, enhances the capacity to think critically and independently, and strengthens cultural competency.

Further consultations undertaken for the FHW project revealed broad consensus that the skills and capabilities most highly valued in both the academic and the wider workforce include strong research skills, strong written and oral communication skills, and the ability to solve problems across diverse contexts. Openness to different knowledge and research paradigms was also seen as critical within the academic context, particularly as research gains a more interdisciplinary profile.[101]

Importantly, humanities training also builds the ability to teach others, which is recognized as a highly relevant and valuable twenty-first-century skill, especially with life-long learning seen as an increasingly critical component of professional agility. Discussions about the Fourth Industrial Revolution, the future of work, technology, and artificial intelligence, also invariably include a call for increased skills in areas traditionally associated with the humanities. These areas include creativity; lateral and critical thinking; ethical thinking; textual analysis; the ability to process and synthesize disparate information sources into a cohesive narrative or argument; rich cultural understanding; and highly developed written and verbal communication skills.

Discussions about the Fourth Industrial Revolution, the future of work, technology, and artificial intelligence, invariably include a call for increased skills in areas traditionally associated with the humanities.

These findings echo a survey of employment outcomes for humanities graduates commissioned by Macquarie University in 2018, which revealed that the skills developed through training in the humanities are relevant across a variety

[100] Australian Academy of the Humanities, *Future Humanities Workforce—Literature Review* (2019), https://www.humanities.org.au/wp-content/uploads/2019/04/AAH-FHW-LiteratureReview.pdf; *Future Humanities Workforce—Consultation Summaries Report* (2019), https://www.humanities.org.au/wp-content/uploads/2019/12/AAH-FHW-Consultation-Summaries.pdf.

[101] Australian Academy of the Humanities, *Future Humanities Workforce—Consultation Summaries Report*.

of business areas, with both "technical skills" (such as quantitative analysis, policy development, software use, foreign languages) and "transferable skills" (communication, teamwork, problem-solving, innovation, emotional judgment) seen as critical to business success.[102] Importantly, both this study and joint research conducted by Australia's consortium of Learned Academies have highlighted that humanities training stimulates the development of a skills mix required to drive the innovation agenda and to tackle complex challenges that will shape our future, such as climate change, obesity, and Indigenous disadvantage.[103] The ability to operate as part of a team, to engage with people from different cultural, linguistic, and disciplinary backgrounds, and to think in a critical and analytical manner are all fundamental for addressing these challenges—and they are all skills that are developed through the study of the humanities.

As the "datafication" of human life continues to grow, questions pertaining to the appropriate levels of digital and data literacy have also become central in the discussion about humanities skills.[104] A commitment to enhancing digital and data literacy among humanities-trained graduates and researchers will be vital for ensuring the strength and agility of this workforce into the future. Digital and technological literacy opens opportunities for impactful research innovation, effective preservation and dissemination of Australia's creative and cultural assets, and robust interdisciplinary exchange. Equally, the ability to work confidently with new and emerging digital tools is crucial for all humanities-trained graduates, as digital literacy is increasingly required and expected by employers.

There is a present need in Australia to develop a more coordinated approach to development of digital and data literacy at the undergraduate, the postgraduate level, and beyond. Promoting and enhancing digital and data literacy across the humanities will require a coordinated approach from universities, (digital) research agencies, government, and the galleries, libraries, archives, and museums (GLAM) sector, the latter being both a major employer of humanities graduates and leader in digital innovation. Success in this effort will ensure that Australia is properly equipped and prepared to participate in the knowledge economy both today and into the future.

It will also be important to overcome the negative framing of a humanities

[102] Deloitte Access Economics, *The Value of the Humanities*, Macquarie University, 2018, https://www2.deloitte.com/au/en/pages/economics/articles/value-humanities.html.

[103] Deloitte Access Economics, *The Value of the Humanities*; Stuart Cunningham et al., *Skills and Capabilities for Australian Enterprise Innovation*.

[104] Giovanni Schiuma and Daniela Carlucci, eds., *Big Data in the Arts and Humanities: Theory and Practice* (London: CRC Press, 2018), xxiii.

education in terms of workforce requirements and to better articulate the alignment between the humanities and skills that cut across a range of professional contexts. Indeed, the importance of these efforts is underscored by a report tabled in 2018 by the Australian Parliament's Select Committee for the Future of Work and Workers, which showed that while stakeholders habitually identify skills such as problem-solving and critical thinking, creativity, negotiation, and ethical decision-making, and abilities such as adaptability and emotional intelligence as being highly sought-after employee qualities, these skills are not readily associated with training in the humanities.[105] In this respect, there is much work to be done in better positioning an arts and humanities education within debates on the current and future workforce (case study 6).

[105] Parliament of Australia, *Select Committee on the Future of Work and Workers: Hope Is Not a Strategy—Our Shared Responsibility for the Future of Work and Workers* (September 19, 2018), https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Future_of_Work_and_Workers/FutureofWork/Report.

Case Study 6: Australian Research Council Centre of Excellence for Automated Decision-Making and Society (ADM+S)

Julian Thomas

In late 2019 the Australian government announced funding for a new seven-year, national research center focused on the risks and benefits of new decision-making technologies. While governments around the world are now investing substantial sums in areas such as artificial intelligence and data science, the unusual feature of this Centre is that it is grounded in the humanities and related social sciences. The new Centre connects researchers in nine Australian universities, drawing on expertise in communications and cultural studies, history, law, ethics, anthropology, economics, and sociology. It links humanities with cutting-edge research in computer and data science, and it connects Australian research with an international network of organizations and universities. The Centre aims to show how humanities research methods and approaches, when combined with insights from the technological sciences, can make substantial advances in knowledge and address major social and policy challenges. It responds to an important series of recent cross-disciplinary reports and inquiries

into the implications of new technologies. In particular, ACOLA (the Australian Council of Learned Academies, of which the Australian Academy of Humanities is a member) has published two major investigations into the current and future research needs demanded by the ethical development of artificial intelligence[1] and by the rapid emergence of the internet of things.[2] In its pathbreaking 2021 report on protecting human rights in the light of new technologies, the Australian Human Rights Commission has documented the deployment of AI in decision-making across government and the criminal justice system and has recognized the need for humanities perspectives in the critical tasks of revising laws, policies, practices, and educational programs. Among many other recommendations, the Commission argued for the incorporation of human rights by design into science, technology, engineering, and mathematics education.[3]

The relations between people and machines have long been an important area for theoretical and empirical investigation in the humanities. The new Centre of Excellence builds on a productive and flourishing line of recent scholarship showing how technological systems are best understood as both social and technical; it also aims to extend the long and productive connections that have developed among the humanities and data and computing sciences. Our starting point is the observation that long-run processes of automation have recently entered a new phase. Automation is now not only about machines making things; in today's information economy, automation involves machines making increasingly important decisions. If in the earlier phase of automation machines were displacing the work of humans and animals, we are now seeing a substitution for institutional functions. We rely increasingly on computers to process data, make predictions, apply rules, choose actions, and determine outcomes. The new wave of automation promises to solve chal-

[1] Toby Walsh, Neil Levy, Genevieve Bell, Anthony Elliott, James Maclaurin, Iven Mareels, and Fiona Wood, *The Effective and Ethical Development of Artificial Intelligence: An Opportunity to Improve Our Wellbeing* (Australian Council of Learned Academies, 2019), https://acola.org/wp-content/uploads/2019/07/hs4_artificial-intelligence-report.pdf.

[2] Bronwyn Fox, Gerard Goggin, Deborah Lupton, Holger Regenbrecht, Paul Scuffham, and Branka Vucetic, *The Internet of Things* (Australian Council of Learned Academies, 2020), https://acola.org/wp-content/uploads/2020/10/hs5_internet-of-things_report.pdf.

[3] Australian Human Rights Commission, *Human Rights and Technology: Final Report* (Australian Human Rights Commission, 2021), https://humanrights.gov.au/our-work/rights-and-freedoms/publications/human-rights-and-technology-final-report-2021.

lenging problems of coordination and resource allocation across many sectors, from the communication of news and media to healthcare and social services.

The promise of automation is about enhancing choice, efficiency, and control for citizens and communities. However, the widespread uptake of new decision-making tools also creates startling new risks of misuse, mistake, and malfunction. Rapidly evolving technologies such as machine learning and distributed ledgers deploy economic incentives in experimental and untested ways. They are likely to produce both spectacular successes *and* failures. These risks are not those of a hypothetical generalized artificial intelligence; they are the deployment of current technologies that disrupt the traditional work of human institutions. Concerns already abound about the future impacts of automation, with one recent review highlighting increasing inequality, declining productivity, and diminishing economic security as likely outcomes in the 2020s. The rapid expansion of automated decision-making creates new risks to human rights and welfare. Potential harms range from data discrimination against disadvantaged communities to the illicit exploitation of personal information for political and commercial ends.

This kind of automation involves a diverse array of intelligent technologies, from deep learning to blockchains, and uses tools from search engines to facial recognition systems. In order to understand and mitigate these risks, we need to recognize the complex interactions between these tools and the people who design and manage these systems, the data that they use, and the institutions with which they work. Automated systems comprise all these elements: they are not only technological, and the problems they raise will not be solved by technology alone.

In our case study of CABAH (case study 1), we have already seen the special role of the Australian Research Council's Centres of Excellence scheme in the Australian research landscape and their importance for the humanities in particular. These Centres are large, cross-disciplinary entities designed to engage with fundamental problems. So, the ADM+S Centre aims to develop a comprehensive picture of the evolution, distribution, dynamics, and potential of automated decision-making in Australia and to contribute to the development of responsible, ethical, and inclusive policy and practice.

Take, for example, recommendation systems, which are now ubiquitously deployed for resource discovery in our everyday lives, from subscription video services to online bookstores, short-stay accommodation booking sites, and

mobile navigation systems. Such systems use sophisticated algorithms and machine learning to attempt to maximize benefits for service providers and consumers. If you have bought a book on Amazon or watched a movie on Netflix, recommendation systems are there to encourage you to try another. But there are also often good reasons why such systems should consider public-interest objectives, such as the interests of neighborhoods in relation to route-finding or accommodation services, or cultural policy objectives in relation to the discovery of media. The Centre is developing new ways of designing recommenders to take factors such as these into account.

We find an array of further ethical, regulatory, design, and technical challenges in a range of other automated systems, from the tools used for content moderation on social media to the deployment of facial recognition technologies in urban spaces.

That kind of research requires humanities scholars, data scientists, and technologists to work closely together. The need for collaboration is nowhere clearer than in the Centre's research training programs, perhaps the most important aspect of ADM+S's work and that of ARC Centres generally. ADM+S aims to train a new generation of doctoral students and early-career researchers in the cross-disciplinary skills required to understand, analyze, and shape better forms of automation. That involves working across disciplines, institutions, and national boundaries, a task made considerably more challenging as the COVID-19 pandemic has coincided with the Centre's establishment phase. However, the Centre is able to make full use of online meeting technologies to connect researchers with peers, colleagues, and external experts in Australia and internationally. Our experience so far demonstrates both the benefits and the limitations of online community building and intellectual endeavor. New kinds of connections are now possible, giving students new opportunities to engage directly with leading authors and industry researchers. Deeper collaborations are likely to depend on in-person events.

University-Based Humanities Workforce

A critical subset of the humanities workforce comprises those who undertake research and teaching at universities. The health and vitality of the humanities are reliant on a university-based workforce, which plays a key role in preserving and advancing knowledge in the humanities; in creating opportunities for

knowledge exchange among universities, government, and industry; and in training generations of humanities graduates to work across industry sectors—public, not-for-profit, and private.

The SHAPE research workforce is composed of 17,933 full-time equivalent (FTE) staff (41 percent of the total 43,582), of which 6,971 FTE were in the humanities and creative arts (HCA) fields.[106] Earlier we reported on generalized concerns facing the humanities academic workforce, including rising staff-student ratios and ad hoc workforce planning. There are sustainability and equity issues facing the humanities workforce that require closer attention.

In Australia, gender inequities persist across the higher education and research ecosystem, which effectively serve to devalue the contribution of women, both socially and economically. While this has long been recognized, national approaches to addressing gender inequity in higher education and research have focused almost exclusively on STEM fields. In the face of ongoing gender disparities, both structural and cultural, across the university sector and in the wider economy, there is a pressing need to provide a comprehensive analysis of the state of play in the humanities.

The gender equity situation in both the higher education and research system and in the humanities specifically needs to be considered in the context of efforts to achieve gender equity in the broader Australian workforce. These have produced significant change over the past several decades, with overall workforce participation by Australian women rising from 43 percent in 1978 to nearly 60 percent in 2015.[107]

Yet while considerable gains have been made, the pace of the progress remains a problem. Australia's ranking in the World Economic Forum's 2020 *Global Gender Gap Report* places it 44th among 153 countries.[108] With a gender parity index score of 0.731 (where 1.000 represents parity), Australia trails common benchmark countries New Zealand (6th), Canada (19th), and the United Kingdom (21th) and is well behind global leaders Iceland (1st, with an index score of 0.877), Norway (2nd, 0.842), and Finland (3rd, 0.832). While Australia's score has increased from 0.716 in 2006, it is concerning that the pace of change in

[106] Calculations based on data collected by the Australian Research Council for its Excellence in Research for Australia (ERA) 2018 Report; see "Staffing Profile," https://dataportal.arc.gov.au/ERA/NationalReport/2018/pages/section4/staffing-profile/.

[107] Select Committee on the Future of Work and Workers, *Hope Is Not a Strategy—Our Shared Responsibility for the Future of Work and Workers* (Canberra: Commonwealth of Australia, 2018), 11.

[108] World Economic Forum, *Global Gender Gap Report 2020* (2020), 73–74, http://www3.weforum.org/docs/WEF_GGGR_2020.pdf.

comparison to other countries has seen Australia's ranking drop over this period.

The gender pay gap in Australia has proven particularly intractable. A recent report by the Grattan Institute reveals that today's female graduates can expect to earn 27 percent less than their male counterparts over their careers.[109] According to Workplace Gender Equality Agency data, the gender pay gap remains grave both in education and training and across other industries that are common career destination for humanities graduates, such as arts and recreation services; professional, scientific, and technical services; and public administration and safety. Furthermore, this is the case even in industries where women represent the majority of the workforce.[110]

In the university sector, there is a perception that the gender inequities are not as marked in the humanities. At a macro level, the humanities academic workforce has a balanced gender profile, but a snapshot of the entire "pipeline" from undergraduate enrollments to senior levels of university employment reveals systemic and cultural barriers to career progression.

In the university sector, there is a perception that gender inequities are not as marked in the humanities. At a macro level, the humanities academic workforce has a balanced gender profile, but a snapshot of the entire "pipeline" reveals systemic and cultural barriers to career progression.

In Australia, women constitute the majority of the student body at the bachelor's level. With 172,213 students, society and culture is the largest disciplinary group, followed by management and commerce (113,711), health (113,584), and the natural and physical sciences (100,853). At the bachelor's level, society and culture and creative arts—two categories that include humanities disciplines—both have more female than male students. Furthermore, society and culture has the highest number of Indigenous students (2,960), followed by health (1,928), the natural and physical sciences (1,179), and education (1,068). There is an approximately equal number of male and female students enrolled in postgraduate degrees by research across all disciplines. In society and culture and creative arts, there are more female than male students. Furthermore, society and culture has the highest number of

[109] Andrew Norton and Ittima Cherastidtham, *Mapping Australian Higher Education 2018*, Grattan Institute Report No. 2018-11 (2019), 77, https://grattan.edu.au/wp-content/uploads/2018/09/907-Mapping-Australian-higher-education-2018.pdf.

[110] Workplace Gender Equity Agency, "WGEA Data Explorer," accessed September 5, 2021, https://data.wgea.gov.au/industries/1.

Indigenous postgraduate students (178), followed by health (72 students).

In the humanities, therefore, women make up the majority of undergraduate and graduate students. There is, however, a tipping point following the completion of PhD studies, where women tend to enter the type of positions, such as professional, teaching, or casualized positions, that deny them or defer a clear research career trajectory.

A recent audit of Australian universities has shown that the humanities, together with the arts and the social sciences, account for 41 percent of the total university-based research workforce, with STEM at 59 percent.[111] These data show that an almost equal number of men and women are employed in SHAPE disciplines. SHAPE and STEM disciplines have similar total numbers of female employees, but male employees in the STEM area vastly outnumber their male SHAPE counterparts. More distinct patterns begin to emerge when these data are examined at the level of appointment (where Level A is entry-level "tutor" through to Level E professor).

Analysis by employment level in SHAPE reveals a distinct drop-off in participation by women at senior levels: while women outnumber men at more junior ranks—61.4 percent of Level A employees are women, and 38.6 percent are men—at Level E this is reversed, with 35.9 percent of employees being women and 64.1 percent men. A similar trend is evident in STEM disciplines, although women in these disciplines are outnumbered by men at every level: 45.1 percent of Level A employees are women, and 54.9 percent are men. At Level E, these differences are amplified: 22.6 percent of employees are women, while 77.4 percent are men.

In both SHAPE and STEM disciplines, men dominate in senior roles and leadership positions; among other things, this has ongoing consequences for the gender pay gap.[112] Importantly, the analysis of the current SHAPE workforce profile in particular emphasizes the need to move away from the so-called pipeline approach to gender equity, whether in SHAPE or STEM, and its assumption that greater numbers of women within a workforce translates into balanced workforce profile along the pipeline.[113]

While the gender disparity in the STEM fields helps to explain the policy

[111] Excellence in Research for Australia 2018, "Staffing Profile," https://dataportal.arc.gov.au/ERA/NationalReport/2018/pages/section4/staffing-profile/.

[112] See, for example, Geraldine Mate and Sean Ulm, "Another Snapshot for the Album: A Decade of Australian Archaeology in Profile Survey Data," *Australian Archaeology* 82, no. 2 (2016): 168–83.

[113] On the inadequacy of the "pipeline" approach in dealing with gender equity, see also Susan Dodds and Eliza Goddard, "Not Just a Pipeline Problem: Improving Women's Participation in Philosophy in Australia," in *Women in Philosophy, What Needs to Change?*, ed. Fiona Jenkins and Katrina Hutchison (Oxford: Oxford University Press, 2013), 143–63.

focus and investment in women in STEM measures, the current gender profile of the Australian academic workforce more broadly indicates the need for a more expansive policy response. Addressing the problem for only one component of the system masks the fact that a significant number of inequity issues are common: career interruptions and carer duties; more restricted mobility, which reduces opportunities for collaboration and by extension citation impact; gendered intellectual hierarchies within disciplines, which privilege some forms of knowledge production over others; gender bias in citation practices; and the fact that women tend to engage more frequently in interdisciplinary work, which has lower citation rates. Furthermore, applying a SHAPE or STEM lens to tackling inequity can oversimplify and obscure disciplinary-level trends; indeed, data show that some disciplines such as philosophy are marked by a level of gender inequity that is similar to that in traditional STEM disciplines, while fields like biology have profiles that are closer to those found in typical humanities disciplines. Addressing gender inequity in academia must involve comprehensive cultural change, which requires both whole-of-institution and cross-sector approaches.

Gender inequity is not the only diversity issue facing Australian higher education. While various measures have been taken to increase participation by Aboriginal and Torres Strait Islander people in higher education generally and the academic workforce in particular, achieving parity remains a major challenge. A 2012 review of higher education access and outcomes for Aboriginal and Torres Strait Islander people found this cohort severely underrepresented across the Australian higher education sector and for academic staff represented just 0.8 percent of the academic workforce in 2010—well below the 2006 parity figure of 2.2 percent.[114] A more recent report by the peak lobby group Universities Australia shows that progress remains slow. Indigenous academic staff numbers have increased from 282 in 2005 to 527 in 2020, with similar growth in professional positions (489 to 1,044). The report notes, however, that just 1.3 percent of Australian university staff—both academic and nonacademic—were from an Indigenous background in 2019, "substantially below the working-age population parity figure of 3.1 percent."[115]

Despite being one of the world's most diverse populations, Australia's distinc-

[114] Larissa Behrendt, Steven Larkin, Robert Griew, and Patricia Kelly, *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Islander People Final Report*, 2012, https://www.dese.gov.au/heppp/resources/review-higher-education-access-and-outcomes-aboriginal-and-torres-strait-islander-people.

[115] Universities Australia, *Indigenous Strategy 2022–25*, https://www.universitiesaustralia.edu.au/publication/indigenous-strategy-2022-25/.

tive cultural makeup is not reflected in the academic workforce, including in the humanities. According to a 2018 Scanlon Foundation report, in 2016 some 28 percent of Australian residents were born overseas—the highest overseas-born proportion among OECD countries with populations in excess of ten million. In addition, 21 percent of those born in Australia have one or both parents born overseas, which means that almost half the population is either first or second generation. However, understanding, let alone addressing, the cultural diversity of our higher education and research workforce is hampered significantly by the inadequacy of the data being collected at either the institutional or the governmental level. This has flow-on effects for our research system and leads to missed opportunities. The role of diaspora researchers in "wiring Australia into the region through global networking," for example, is not well understood, and as such this cohort is largely not included in strategic thinking about driving international collaboration.[116]

In the context of COVID-19, the university sector's research workforce and capability planning will be impacted by the downturn in international student income and by the stagnation in international research mobility. There is emerging evidence of adverse impacts on early-career researchers (ECRs), higher-degree research (HDR) candidates, and international students.[117] Preliminary findings from both Australian and international studies reveal that there are gender-specific impacts of the current pandemic and that this will have direct consequences for female-dominated workforces, including across the humanities fields. Furthermore, as discussed earlier, the humanities faculty is a teaching and research workforce, with much lower proportions of research-only academics across Australia's higher education sector than are typically found in the STEM fields. As such, it is likely that there will be implications for research productivity with the shift to online course delivery and development of micro-credential course offerings. As is the case in primary and secondary education, the tertiary sector is having to adapt to rapid changes.

The role of diaspora researchers in "wiring Australia into the region through global networking" is not well understood, and as such this cohort is largely not included in strategic thinking about driving international collaboration.

[116] Ien Ang, Yasmin Tambiah, and Phillip Mar, *Smart Engagement with Asia: Leveraging Language, Research and Culture* (Australian Council of Learned Academies, 2015), https://acola.org/wp-content/uploads/2018/08/saf03-smart-engagement-asia-report.pdf.

[117] Larkins et al., "Impact of the Pandemic on Australia's Research Workforce."

Conclusion

The humanities in Australia continue to transform and adapt from within: while the field maintains its strong disciplinary foci, new collaborative areas of inquiry are emerging, and the humanities continue to engage with the turn to digital and data-driven research. This report has focused on some of the ways in which the humanities in Australia are evolving, including facing the harms inflicted by past research practices with Indigenous peoples and communities and addressing the current barriers to the full participation of First Nations researchers in our knowledge institutions. Australian Indigenous knowledge systems offer a transformational perspective on twenty-first-century humanities issues, from environmental sustainability and restorative justice to cultural competence and engaged social policy—but drawing on these insights requires a national compact underpinned by genuine reciprocity and reparation.

The humanities in Australia continue to adapt and innovate by exploring new interdisciplinary research relationships and platforms, including harnessing opportunities provided by the growing availability of "big data." Responding to developments in digital technologies and artificial intelligence, humanities researchers are leading efforts on matters critical to our future, examining the social, ethical, cultural, political, and historical dimensions of human/machine interactions, including automated decision-making systems.

Humanities researchers also play a central role in the life of Australian communities through outreach activities and industry collaborations and by providing the underpinning knowledge base for our public humanities institutions and skills for the creative and cultural economy. Their work is connected and engaged and has real-world impacts.

But the humanities in Australia are also under serious pressure. The way in which humanities research and training are funded and planned in Australia has been very ad hoc and project-based and has been left largely to institutional imperatives and dictates. Along with a higher education and research policy environment that lacks a clear overarching strategy or vision, the erosion of funding for fundamental research, the dominant focus on the capability of STEM fields, and a benign (at best) or hostile view of the contribution and value of a humanities education, there is a question of how long the sector can maintain the resilience is has managed to show to date.

This position is at odds with the importance of the humanities for Australia's future. Cross-cultural awareness and multilingual and linguistic dexterity, along with informed insights into media and communication, are precisely the attributes

required of the twenty-first-century workforce and citizenry. Australia's relationships with the Asian region underpin our national security, economic prosperity, and cultural vitality. Knowledge of the operations of media and the power of narrative in communication are crucial to building Australians' abilities to engage effectively in our democracy. Understanding the significance of how language shapes worldviews and public debate is crucial to effective global engagement.

Australia's pressing challenges need a strong humanities sector. Building equitable, ethical, and imaginative approaches to life with and beyond COVID-19; addressing the devastating impacts of the climate crisis on our communities; contributing solutions to the domestic and family violence scourge; and creating a reimagined polity negotiated with First Nations concepts and rights—the humanities in Australia have much to do.

Appendix A: Defining the Humanities

The term "humanities" refers to a group of academic disciplines that examine human actions, ideas, institutions, and values. These disciplines include philosophy; political and social history; the history and theory of music, art, and architecture; and the study of cultures, languages, and literatures.

In Australia, fields of research (FoR) and fields of education (FoE) codes are used to assess and report on the activity in the humanities. These classifications are used by government departments and agencies, universities, the Australian Research Council (ARC), and the Australian Bureau of Statistics (ABS) to track enrollments and completions; the educational background of the working population; and research investment, outcomes, and impact. Within these classifications, the humanities and arts are divided into four broad fields: studies in creative arts and writing; language, communication, and culture; history and archaeology; and philosophy and religious studies.

While we use this taxonomy in this report, we regard it as a limited lens through which to understand the full scope of activity, because the full range and potential of humanities "on the ground" extends beyond these categories into areas of overlap with the sciences and the social sciences. Interdisciplinary areas of research do not fit neatly into these frameworks: until recently, these classifications allowed limited visibility for research in Indigenous studies or gender studies, and this continues to be an issue for newer areas of research such as environmental humanities or digital humanities.

Table A1. Humanities, arts, and social sciences (SHAPE) fields of research to 2020

Social, behavioral & economic sciences (SBE)	Humanities & creative arts (HCA)
13 EDUCATION 1301 Education systems 1302 Curriculum and pedagogy 1303 Specialist studies in education 1399 Other education 14 ECONOMICS 1401 Economic theory 1402 Applied economics 1403 Econometrics 1499 Other economics 15 COMMERCE, MANAGEMENT, TOURISM & SERVICES 1501 Accounting, auditing & accountability 1502 Banking, finance & investment 1503 Business and management 1504 Commercial services 1505 Marketing 1506 Tourism 1507 Transportation and freight services 1599 Other commerce, management, tourism & services 16 STUDIES IN HUMAN SOCIETY 1601 Anthropology 1602 Criminology 1603 Demography 1604 Human geography 1605 Policy and administration 1606 Political science 1607 Social work 1608 Sociology 1699 Other studies in human society 17 PSYCHOLOGY AND COGNITIVE SCIENCES 1701 Psychology 1702 Cognitive science 1799 Other psychology and cognitive sciences	12 BUILT ENVIRONMENT AND DESIGN 1201 Architecture 1202 Building 1203 Design practice and management 1204 Engineering design 1205 Urban and regional planning 1299 Other built environment and design 18 LAW AND LEGAL STUDIES 1801 Law 1802 Maori law 1899 Other law and legal studies 19 STUDIES IN CREATIVE ARTS AND WRITING 1901 Art theory and criticism 1902 Film, television and digital media 1903 Journalism and professional writing 1904 Performing arts and creative writing 1905 Visual arts and crafts 1999 Other studies in creative arts and writing 20 LANGUAGE, COMMUNICATION & CULTURE 2001 Communication and media studies 2002 Cultural studies 2003 Language studies 2004 Linguistics 2005 Literary studies 2099 Other language, communication & culture 21 HISTORY AND ARCHAEOLOGY 2101 Archaeology 2102 Curatorial and related studies 2103 Historical studies 2199 Other history and archaeology 22 PHILOSOPHY AND RELIGIOUS STUDIES 2201 Applied ethics 2202 History and philosophy of specific fields 2203 Philosophy 2204 Religion and religious studies 2299 Other philosophy & religious studies

Source: Australian and New Zealand Standard Research Classification (ANZSRC) 2008, https://www.abs.gov.au/Ausstats/abs@.nsf/Latestproducts/4AE1B46AE2048A28CA25741800044242?opendocument.

Table A2. Humanities, arts, and social sciences (SHAPE) fields of research from 2020

Social, behavioral & economic sciences (SBE)	Humanities & creative arts (HCA)
35 COMMERCE, MANAGEMENT, TOURISM & SERVICES	33 BUILT ENVIRONMENT AND DESIGN
3501 Accounting, auditing & accountability	3301 Architecture
3502 Banking, finance & investment	3302 Building
3503 Business systems in context	3303 Design
3504 Commercial services	3304 Engineering design
3505 Human resources and industrial relations	3305 Urban and regional planning
3506 Marketing	3399 Other built environment and design
3507 Strategy, management & organizational behavior	36 CREATIVE ARTS AND WRITING
3508 Tourism	3601 Art history, theory & criticism
3509 Transportation, logistics & supply chains	3602 Creative and professional writing
3599 Other commerce, management, tourism & services	3603 Music
	3604 Performing arts
38 ECONOMICS	3605 Screen and digital media
3801 Applied economics	3606 Visual arts
3802 Econometrics	3699 Other studies in creative arts and writing
3803 Economic theory	
3899 Other economics	43 HISTORY, HERITAGE & ARCHAEOLOGY
	4301 Archaeology
39 EDUCATION	4302 Heritage, archive & museum studies
3901 Curriculum and pedagogy	4303 Historical studies
3902 Education policy, sociology & philosophy	4399 Other history, heritage & archaeology
3903 Education systems	
3904 Specialist studies in education	47 LANGUAGE, COMMUNICATION & CULTURE
3999 Other education	4701 Communication and media studies
	4702 Cultural studies
44 HUMAN SOCIETY	4703 Language studies
4401 Anthropology	4704 Linguistics
4402 Criminology	4705 Literary studies
4403 Demography	4799 Other language, communication & culture
4404 Development studies	
4405 Gender studies	48 LAW AND LEGAL STUDIES
4406 Human geography	4801 Commercial law
4407 Policy and administration	4802 Environmental and resources law
4408 Political science	4803 International and comparative law
4409 Social work	4804 Law in context
4410 Sociology	4805 Legal systems
4499 Other human society	4806 Private law and civil obligations
	4807 Public law
	4899 Other law and legal studies

52 PSYCHOLOGY
5201 Applied and developmental psychology
5202 Biological psychology
5203 Clinical and health psychology
5204 Cognitive and computational psychology
5205 Social and personality psychology
5299 Other psychology

50 PHILOSOPHY AND RELIGIOUS STUDIES
5001 Applied ethics
5002 History and philosophy of specific fields
5003 Philosophy
5004 Religious studies
5005 Theology
5099 Other philosophy and religious studies

Source: Australian and New Zealand Standard Research Classification (ANZSRC) 2008, https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-research-classification-anzsrc/2020.

Table A3. Aboriginal and Torres Strait Islander (ATSI) fields of research from 2020

45 Indigenous studies
4501 Aboriginal and Torres Strait Islander culture, language & history
4502 Aboriginal and Torres Strait Islander education
4503 Aboriginal and Torres Strait Islander environmental knowledges and management
4504 Aboriginal and Torres Strait Islander health and well-being
4506 Aboriginal and Torres Strait Islander peoples, society & community
4507 Aboriginal and Torres Strait Islander sciences
4508 Te ahurea, reo me te hītori o te Māori (Māori culture, language & history)
4509 Mātauranga Māori (Māori education)
4510 Ngā mātauranga taiao o te Māori (Māori environmental knowledges)
4511 Te hauora me te oranga o te Māori (Māori health and well-being)
4512 Ngā tāngata, te porihanga me ngā hapori o te Māori (Māori peoples, society & community)
4513 Ngā pūtaiao Māori (Māori sciences)
4514 Pacific Peoples culture, language & history
4515 Pacific Peoples education
4516 Pacific Peoples environmental knowledges
4517 Pacific Peoples health and well-being
4518 Pacific Peoples sciences
4519 Pacific Peoples society and community
4520 Other Indigenous data, methodologies & global Indigenous studies
4599 Other Indigenous studies

Source: Australian and New Zealand Standard Research Classification (ANZSRC) 2008, https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-research-classification-anzsrc/2020.

Appendix B: Humanities Research Funding

The Department of Education maintains the Higher Education Research Data Collection (HERDC), which disaggregates income into four source categories.

Table B1. Higher education research data collection—income categories

Category 1	Australian competitive grants This category includes competitive grants administered by the Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC).
Category 2	Other public sector research funding This category includes other research income received from the Australian government that is not eligible for inclusion as Category 1 income. This might include research income from Australian government business enterprises, from state and local governments, from state government business enterprises, or from partly government–owned or –funded bodies.
Category 3	Industry and other funding for research This category includes research income received from Australian or international contracts, competitive grants, donations, bequests, and foundations.
Category 4	Cooperative Research Centres (CRC) funding This category includes the CRC project grants that support collaboration between industry and research organizations.

Source: Department of Education, Skills and Employment, Higher Education Research Data Collection (HERDC), https://www.dese.gov.au/research-block-grants/higher-education-research-data-collection-herdc.

Australia's research system is reliant on public funding across all fields of research. Forty percent of university research income is derived from "Australian competitive grants" (HERDC Category 1 income), 26 percent from "other public sector research income—Commonwealth, state, territory or local government" (HERDC Category 2). Thirty-three percent is generated from industry (which includes for profits, not-for-profits [NFPs], and Australian philanthropic funding, as well as international sources of funding, including international governments) (HERDC Category 3). Only 2 percent of funding is derived from Cooperative Research Centres (CRC) (HERDC Category 4).

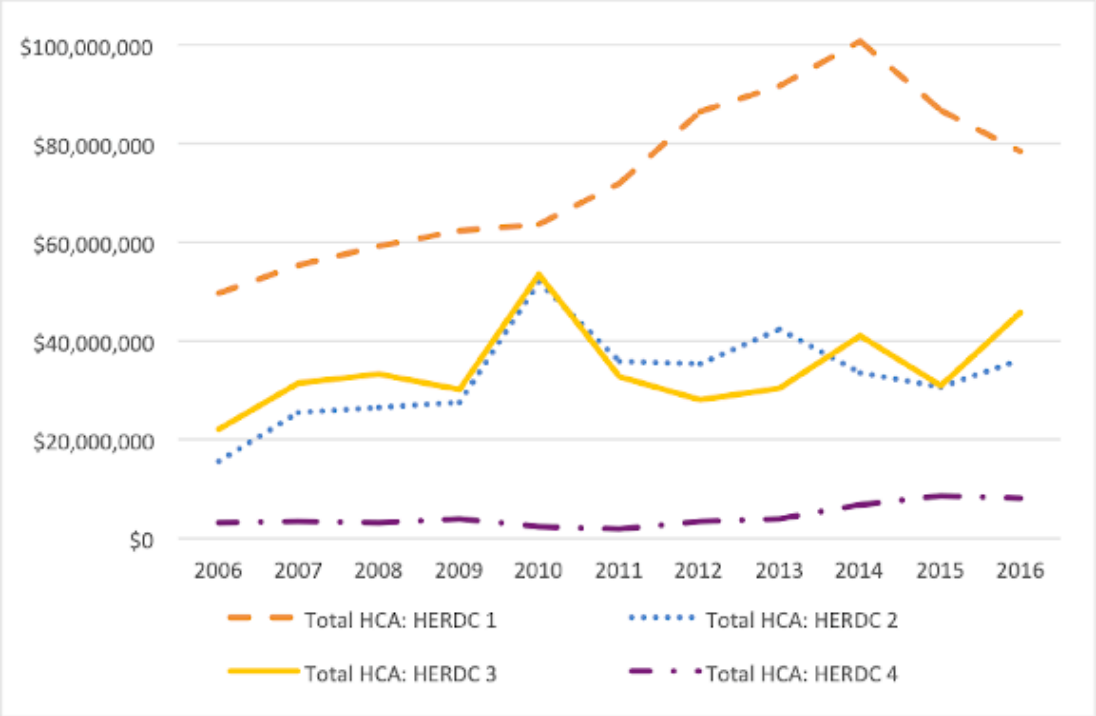
Table B2. Research funding in Australia, 2019, by income category (HERDC)

		$	%
Category 1	Australian competitive grants	1,812,333,973	39.54
Category 2	Other public sector research funding	1,174,758,257	25.63
Category 3	Industry and other funding for research	1,506,647,357	32.87
Category 4	Cooperative Research Centre (CRC) funding	89,820,299	1.96
Total		4,583,559,886	100

Source: Department of Education, Skills and Employment, https://www.dese.gov.au/research-block-grants/higher-education-research-data-collection-herdc.

In 2014 merit-based, contestable funding for fundamental research was the largest share of funding for humanities and creative arts fields (at 47 percent of total research income), whereas for social sciences fields the largest research income stream is derived from noncompetitive "other public sector research income" (36 percent of total).

Figure B1. Humanities and creative arts (HCA) research income, 2006–16, by income category



Source: Australian Research Council, Excellence in Research for Australia reports, https://www.arc.gov.au/excellence-research-australia/era-reports.

Table B3. Category 1 Australian competitive grants: humanities and creative arts (HCA) by broad field of research, 2006–16 (in dollars)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Totals
Built environment and design	4,184,447	5,363,013	7,210,949	7,577,079	9,194,123	9,154,872	9,677,208	8,766,229	8,593,105	8,907,495	8,925,886	87,554,405
Law and legal studies	7,392,162	7,817,830	8,159,586	9,737,056	10,982,403	11,894,395	16,211,078	15,367,109	15,571,718	12,371,086	10,473,490	125,977,914
Studies in creative arts and writing	4,370,769	4,743,106	4,882,955	5,712,956	5,550,238	6,636,297	8,082,894	8,340,317	8,151,917	7,227,577	6,400,152	70,099,177
Language, communi-cation & culture	13,482,372	14,961,152	15,331,006	15,737,568	14,322,683	15,895,079	17,725,376	21,703,440	26,862,575	23,768,342	21,025,481	200,815,074
History and archaeology	12,729,425	14,093,689	15,531,011	16,015,192	16,545,223	19,694,723	25,015,732	27,261,924	30,631,975	25,375,120	24,032,835	226,926,849
Philosophy and religious studies	7,515,858	8,274,818	8,018,686	7,479,766	7,111,128	8,530,587	9,757,060	10,176,060	10,797,839	8,998,835	7,545,713	94,206,350
Total HCA	49,675,032	55,253,609	59,134,193	62,259,617	63,705,798	71,805,952	86,469,348	91,615,080	100,609,129	86,648,455	78,403,557	805,579,770

Source: Australian Research Council Excellence in Research for Australia exercises 2010, 2012, 2015, 2018, https://www.arc.gov.au/excellence-research-australia.

Table B4. Category 1 Australian competitive grants: humanities and creative arts (HCA) relative to social, behavioral, and economic sciences (SBE) (in dollars) and as proportion of total system, 2006–16

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Totals
Total SBE	88,944,985	97,073,206	107,027,976	118,492,186	126,250,855	140,604,484	168,339,983	180,504,666	192,029,678	174,013,861	152,655,260	1,545,937,141
Total SHAPE	138,620,017	152,326,815	166,162,169	180,751,803	189,956,653	212,410,436	254,809,331	272,119,746	292,638,807	260,662,316	231,058,817	2,351,516,911
Total all fields of research (incl. STEM)	966,384,458	1,065,000,668	1,165,882,898	1,247,258,990	1,339,342,843	1,469,374,694	1,637,701,590	1,713,994,454	1,819,282,821	1,678,148,196	1,583,428,437	15,685,800,049
HCA % of total	5.1	5.2	5.1	5.0	4.8	4.9	5.3	5.3	5.5	5.2	5.0	5.1

Source: Australian Research Council Excellence in Research for Australia exercises 2010, 2012, 2015, 2018, https://www.arc.gov.au/excellence-research-australia.

Table B5. Category 2 other public-sector research funding: humanities and creative arts (HCA) relative to social, behavioral, and economic sciences (SBE) (in dollars) and as proportion of total system, 2006–16

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Totals
Total HCA	15,601,564	25,610,338	26,576,702	27,518,242	51,870,838	35,950,383	35,427,533	42,318,227	33,519,885	30,679,609	36,179,251	361,252,572
Total SBE	96,895,344	98,853,715	101,041,922	125,792,023	135,376,401	134,450,676	141,586,561	152,183,132	165,404,680	170,257,153	182,704,815	1,504,546,422
Total SHAPE	112,496,908	124,464,054	127,618,624	153,310,265	187,247,239	170,401,059	177,014,093	194,501,359	198,924,565	200,936,762	218,884,066	1,865,798,993
Total all fields of research (incl. STEM)	645,148,435	767,298,614	767,940,620	765,334,980	852,671,620	852,073,804	863,453,712	856,575,659	878,981,071	859,260,960	953,486,466	9,062,225,941
HCA % of total (HERDC 2)	2.4	3.3	3.5	3.6	6.1	4.2	4.1	4.9	3.8	3.6	3.8	4.0

Source: Australian Research Council Excellence in Research for Australia exercises 2010, 2012, 2015, 2018, https://www.arc.gov.au/excellence-research-australia.

Table B6. Category 3 industry and other funding for research: humanities and creative arts (HCA) relative to social, behavioral, and economic sciences (SBE) (in dollars) and as proportion of total system, 2006–16

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Totals
Total HCA	22,114,190	31,406,965	33,389,202	30,045,119	53,460,707	32,773,178	28,157,996	30,482,536	41,086,203	30,983,723	45,699,411	379,599,230
Total SBE	62,556,464	61,281,193	73,822,453	79,723,278	106,836,408	74,996,063	71,337,833	89,099,304	90,713,779	111,965,925	108,005,914	930,338,613
Total SHAPE	84,670,654	92,688,158	107,211,655	109,768,397	160,297,115	107,769,240	99,495,828	119,581,840	131,799,982	142,949,648	153,705,325	1,309,937,843
Total all fields of research (incl. STEM)	627,465,288	672,873,956	778,186,555	672,573,388	806,336,537	705,236,702	693,110,739	780,086,916	830,190,021	995,243,279	1,047,340,014	8,608,643,395
SHAPE % (HERDC 3)	3.5	4.7	4.3	4.5	6.6	4.6	4.1	3.9	4.9	3.1	4.4	4.4

Source: Australian Research Council Excellence in Research for Australia exercises 2010, 2012, 2015, 2018, https://www.arc.gov.au/excellence-research-australia.

Table B7. Category 4 Cooperative Research Centre funding: humanities and creative arts (HCA) fields of research relative to social sciences and total system, 2006–16 (in dollars)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Totals
Total HCA	3,229,646	3,524,054	3,286,639	3,999,875	2,352,973	1,850,342	3,308,542	3,990,206	6,779,784	8,684,976	8,010,773	49,017,811
Total SBE	10,122,941	11,182,392	10,292,784	11,319,904	9,938,266	6,130,470	8,550,649	10,056,418	12,596,577	12,337,016	12,443,605	114,971,020
Total HASS	13,352,586	14,706,446	13,579,423	15,319,779	12,291,239	7,980,812	11,859,191	14,046,623	19,376,361	21,021,992	20,454,378	163,988,831
Total All Fields of Research (incl. STEM)	130,978,267	126,264,416	126,216,005	125,049,588	120,931,046	107,495,651	116,770,633	104,375,744	108,891,549	102,842,856	94,378,986	1,264,194,742
SHAPE % (HERDC 4)	2.5	2.8	2.6	3.2	1.9	1.7	2.8	3.8	6.2	8.4	8.5	3.9

Source: Australian Research Council Excellence in Research for Australia exercises 2010, 2012, 2015, 2018, https://www.arc.gov.au/excellence-research-australia.

Appendix C: Humanities Collaboration and Partnership

In the Australian Research Council Linkage program, the humanities and creative arts (HCA) performance for the years 2016–20 relative to wider system is shown in table C1.

Table C1. Humanities and creative arts (HCA) performance in Australian Research Council Linkage program, 2016–20

	2016		2017		2018		2019		2020	
	$	No.	$	No.	$	No.	$	No.	$	No.
HCA*	5,502,862	18	2,188,990	7	4,658,537	14	7,931,260	21	10,366,326	23
SBE	9,416,148	33	3,682,728	11	9,429,870	24	10,226,719	25	15,228,429	42
SHAPE	14,919,010	51	5,871,718	18	14,088,407	38	18,157,979	46	25,594,755	65
Total system (incl. STEM)	163,550,876	235	33,495,075	87	54,498,581	135	59,205,930	137	77,137,993	173
HCA % SHAPE	37	35	37	39	33	37	44	46	41	35
HCA % system	3	8	7	8	9	10	13	15	13	13

Source: Australian Research Council, National Competitive Grants Program, Grants Search https://dataportal.arc.gov.au/NCGP/Web/Grant/Grants.
* Key: Humanities and Creative Arts (HCA), Social, Behavioral, and Economic Sciences (SBE), Humanities, Arts, and Social Sciences (HASS = HCA + SBE), Science, Technology, Engineering and Mathematics (includes medicine).

In the humanities and arts fields, galleries, libraries, archives, and museums (GLAM) organizations have featured as strong partners over time. A preliminary search across all projects over the period 2001–18 involving a GLAM organization shows that there were 248 projects with a museum as a participating institution over the period with total project funding of $122,972,610. Indicative results for projects involving the National Library of Australia (NLA), for example, show forty projects over the period, with total project funding of

$10,508,618. The NLA has collaborated on projects involving sixteen Australian universities in each state and territory.

Australia has a strong and vibrant creative sector and long-term partnerships between cultural institutions and researchers, most operating at the project-based level (funded through ARC Linkage projects, for example). There are opportunities to work on a number of priorities areas where research, policy, and cultural organizations align:

> Indigenous engagement, data sovereignty, cultural repatriation
> Media and digital literacy
> Communications, outreach, social inclusion
> Bridging the digital divide, especially, for example, in the context of COVID-19, online education, and working from home
> Building linguistic expertise and intercultural exchange between Australia and the Asia and Indo-Pacific region

Another area of real potential is the development of innovative research infrastructure platforms that intersect and interoperate with cultural infrastructure. Australia has announced a commitment to fund a program for a Humanities, Arts, and Social Sciences and Indigenous Research Data Commons through the Australian Research Data Commons (ARDC). Humanities researchers have developed innovative infrastructures and are increasingly harnessing the power of "big data"—for example, work being led at the University of Newcastle on developing a Time-Layered Cultural Map.

The ARC's Centre of Excellence program is premised on strategic and large-scale collaboration. The following centers in the humanities have been funded over the life of the program to date.

Table C2. ARC Centres of Excellence in the humanities

Centre details	Grant summary	Investigators	Partners
ARC Centre of Excellence for Automated Decision-Making and Society Commenced 2020 Anticipated end date August 2027 RMIT University (Administering Organization) Primary field of research: 2001–Communication and media studies Announced funding: $31,783,576	The Centre aims to create the knowledge and strategies necessary for responsible, ethical, and inclusive automated decision-making (ADM). ADM applies new technologies from machine learning to blockchains across a wide range of social sectors; it carries great potential and risks serious failures. The Centre combines social and technological disciplines in an international industry, research, and civil society network. It will formulate world-leading policy and practice, inform public debate, and train a new generation of researchers and practitioners. Expected benefits include reduced risks and improved outcomes in the priority domains of news and media, transport, social services, and health.	Prof. Julian Thomas (Lead Investigator) Prof. Kimberlee Weatherall Assoc. Prof. Anthony McCosker Mr. Nicholas Walsh Prof. Jackie Scully Prof. Jean Burgess Prof. Heather Horst Prof. Sarah Pink Prof. Mark Andrejevic Prof. Christine Parker Prof. Christopher Leckie Prof. Megan Richardson Prof. Deborah Lupton Prof. Axel Bruns Prof. Nicolas Suzor Prof. Paul Henman Prof. Gerard Goggin Prof. Mark Sanderson Prof. Dan Hunter Prof. Jason Potts Prof. Dr. Wolfgang Schulz Assoc. Prof. Vaike Fors Prof. Karen Yeung Dr. Cornelius Puschmann Prof. Dr. Maarten de Rijke Asst. Prof. Julia Stoyanovich Prof. Frank Pasquale Ms. Ivana Jurko	Current: RMIT University Queensland University of Technology University of Melbourne Monash University Swinburne University of Technology University of New South Wales University of Sydney University of Queensland Data & Society Research Institute Digital Asia Hub Hans-Bredow-Institut, Germany Australian Broadcasting Corporation Australian Communications Consumer Action Network Limited Australian Red Cross Society Consumer Policy Research Centre Ltd Google Australia Pty Ltd Bendigo Hospital Cornell University, USA Halmstad University, Sweden University of Amsterdam, Netherlands University of Birmingham, UK University of Oxford, UK New York University, USA Consumers Health Forum of Australia Ltd Australian Council of Social Service

Max Kelsen Pty Ltd
Office of the Victorian Information Commissioner
Volvo Car Corporation
AW AlgorithmWatch gGmbH
Western Sydney University
Brooklyn Law School, USA

ARC Centre of Excellence for Australian Biodiversity and Heritage

Commenced 2017
Anticipated end date June 2024

University of Wollongong (Administering Organization)

Primary field of research:
2101–Archaeology

Announced funding:
$33,750,000

This Centre will create a world-class interdisciplinary research program to understand Australia's unique biodiversity and heritage. The Centre will track the changes to Australia's environment to examine the processes responsible for the changes and the lessons that can be used to continue to adapt to Australia's changing environment. The Centre will support connections between the sciences and humanities and train future generations of researchers to deal with future global challenges and inform policy in an interdisciplinary context.

Prof. Richard Roberts (Lead)
Dr. Kieren Mitchell
Dr. Amy Way
Dr. Vera Weisbecker
Assoc. Prof. Janelle Stevenson
Prof. Rebecca Bird
Dr. Geraldine Mate
Prof. Kristofer Helgen
Prof. Ian McNiven
Ms. Julie Matarczyk
Prof. Susan O'Connor
Prof. Zenobia Jacobs
Assoc. Prof. Timothy Cohen
Prof. Simon Haberle
Prof. Michael Bird
Prof. Sean Ulm
Prof. Christian Turney
Prof. Nicholas Nakata
Assoc. Prof. Darren Curnoe
Prof. Corey Bradshaw
Dr. Laura Weyrich
Prof. Bruno David
Prof. Lynette Russell
Prof. Barry Brook
Prof. Christopher Johnson
Dr. Brit Asmussen
Dr. Michael Slack
Prof. Jean-Jacques Delannoy
Dr. Matthew Leavesley
Prof. Michael Storey

University of Wollongong
Australian National University
James Cook University
University of New South Wales
University of Adelaide
Monash University
University of Tasmania
Queensland Museum
Australian Museum
Scarp Archaeology Pty Ltd
South Australian Museum
State Library of New South Wales
Bioplatforms Australia Ltd
University of Savoy
University of Papua New Guinea
Natural History Museum of Denmark
Indonesian National Centre for Archaeology
Flinders University
Papua New Guinea National Museum and Art Gallery
Pennsylvania State University, USA

ARC Centre of Excellence for the Dynamics of Language

Commenced 2014
Anticipated end date December 2021

Australian National University (Administering Organization)

Primary field of research:
2004–Linguistics

Announced funding:
$28,000,000

Language is central to human existence and to the flow of information. The Centre will address the most critical questions about language: How do languages evolve? How different can languages be? How do our brains acquire and process them? How can technologies deal with the complexity and enormous variability of language in its central role in human information processing? What can Australia do to increase its linguistic abilities at a time of increasingly multilingual demands in trade and information? The Centre will also secure language heritage, develop new language technologies, connect policy with indigenous and migrant communities, and build strategies to help first and second language learning and those isolated by language difficulties.

Prof. Nicholas Evans (Lead)
Assoc. Prof. Anthony Angwin
Ms. Romina Paskotic
Prof. Felicity Meakins
Prof. Rachel Nordlinger
Prof. Anne Cutler
Assoc. Prof. Nicholas Thieberger
Prof. Janet Wiles
Prof. Kim Sterelny
Prof. Greville Corbett
Prof. Dr. Stephen Levinson
Prof. Janet Fletcher
Dr. Judith Bishop
Prof. Catherine Travis
Prof. Gillian Wigglesworth
Assoc. Prof. Caroline Jones
Prof. Jane Simpson
Emer. Prof. Alan Rumsey
Dr. Bethwyn Evans
Prof. Stephen Matthews
Prof. Paola Escudero
Prof. Morten Christiansen
Prof. Rena Torres Cacoullos
Prof. Miriam Meyerhoff
Prof. Caroline Rowland
Prof. Elena Lieven
Prof. Russell Gray
Assoc. Prof. Bee Ng
Prof. Virginia Yip

Australian National University
Western Sydney University
University of Melbourne
University of Queensland
Appen Pty Ltd
Cornell University, USA
University of Surrey, UK
Max Planck Institute for Psycholinguistics, Germany
University of Manchester, UK
Pennsylvania State University, USA
Australian Institute of Aboriginal and Torres Strait Islander Studies
Chinese University of Hong Kong
University of Hong Kong
Nanyang Technological University, Singapore
Victoria University of Wellington
Max Planck Institute for the Science of Human History, Germany

ARC Centre of Excellence for the History of Emotions

Commenced 2011
End date December 2018

University of Western Australia (Administering Organization)

Primary field of research:
2005–Literary studies

Announced funding:
$24,250,000

Emotions change over time; yet the long-term causes and consequences of changing emotional experiences and expressions remain largely unknown. This Centre will revolutionize research in the humanities and creative arts by initiating innovative research collaborations across many disciplines to account for long-term changes and continuities in emotional regimes in Europe in 1100–1800. For the first time we will fully analyze the social, cultural, and political effects of mass emotional events. Links with cultural industry partners in art, drama, and music will enable reflective performance research on communication of emotions and illuminate the Western cultural foundations of emotions in modern Australia.

Emer. Prof. Andrew Lynch (Lead)
Dr. Tanya Tuffrey
Emer. Prof. Andrew Lynch
Dr. Shino Konishi
Dr. Paul Gibbard
Prof. Jane Davidson
Prof. Peter Holbrook
Prof. David Lemmings
Prof. Yasmin Haskell
Assoc. Prof. Jacqueline Van Gent
Prof. Charles Zika
Prof. Robert White
Prof. Stephanie Trigg
Dr. Juanita Ruys
Prof. Susan Broomhall
Dr. Claudia Jarzebowski
Hon. Jonas Liliequist
Prof. Indira Ghose
Dr. Thomas Dixon
Prof. Louis Charland
Assoc. Prof. Piroska Nagy

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University of Sydney
Umea University, Sweden
Freie Universitat Berlin, Germany
Universite de Fribourg, Switzerland
Universite du Quebec a Montreal, Canada
Council of Trustees of the National Gallery of Victoria
Queen Mary University of London, UK
University of Bristol, UK
Western University, Canada

ARC Centre of Excellence in Creative Industries and Innovation Commenced 2005 End date June 2014 Queensland University of Technology (Administering Organization) Announced funding: $12,495,538	The Centre will produce economic benefit by adding much-needed creative innovation to the national science and technology innovation system. To maximize the growth, social reach and export potential of this dynamic sector of the service economy the Centre will produce new solutions in industry metrics, public policy, legal and regulatory services, and in education for a creative workforce. It will make Australia more competitive internationally in digital content applications using user-led innovation. It will deliver national and regional cultural benefit by uplifting multimedia literacy levels and improving the circulation of creative applications sourced from appropriately trained providers and co-creative consumers.	Prof. Stuart Cunningham (Lead) Prof. Christoph Antons Prof. Trevor Barr Adj. Prof. Denise Meredyth Assoc. Prof. David MacKenzie Prof. Brian Fitzgerald Prof. Lelia Green Prof. John Hartley Prof. Gregory Hearn Prof. Rachel Parker Prof. Julian Thomas Prof. Axel Bruns Prof. Terry Flew Prof. Angelina Russo Prof. Jane Mills Mr. David Court

Source: Australian Research Council, "ARC Centres of Excellence," https://www.arc.gov.au/grants/linkage-program/arc-centres-excellence.

Appendix D: Humanities Workforce

Industries of Employment

Table D1. Top 10 industries of employment, all levels

Industry of employment	Humanities total	% Humanities workforce	Total % of of all fields
Architectural, engineering & technical services	31,201	9.8	35.6
Tertiary education	22,924	7.2	17.2
School education	17,872	5.6	5.9
Cafes, restaurants & takeaway food services	9,791	3.1	15.7
Local government administration	8,353	2.6	22.8
Creative and performing arts activities	8,309	2.6	61.0
State government administration	7,897	2.5	10.5
Adult, community & other education	7,836	2.5	26.0
Religious services	7,276	2.3	53.4
Central government administration	6,851	2.2	12.3

Source: Analysis from *Future Humanities Workforce* (forthcoming), using data from the Australian Bureau of Statistics Census 2016.

Table D2. Top 10 industries of employment, master's level

Industry of employment	Humanities total	% Humanities workforce	Total % of of all fields
Architectural, engineering & technical services	7,811	14.1	39.4
Tertiary education	5,900	10.6	17.4
School education	4,936	8.9	8.6
Religious services	2,300	4.1	63.2
Local government administration	2,029	3.7	24.8
State government administration	1,853	3.3	9.8
Adult, community & other education	1,660	3.0	25.0
Creative and performing arts	1,479	2.7	61.4
Central government administration	1,370	2.5	10.1
Management and related consulting services	946	1.7	7.7

Source: Analysis from *Future Humanities Workforce* (forthcoming), using data from the Australian Bureau of Statistics Census 2016.

Table D3. Top 10 industries of employment, doctoral level

Industry of employment	Humanities total	% Humanities workforce	Total % of of all fields
Architectural, engineering & technical services	31,201	9.8	35.6
Tertiary education	6,808	57.5	15.7
School education	683	5.8	20.9
Religious services	463	3.9	68.6
Creative and performing arts activities	348	2.9	64.9
State government administration	336	2.8	10.8
Adult, community & other education	316	2.7	35.3
Central government administration	295	2.5	11.6
Scientific research services	254	2.1	3.8
Management and related consulting services	177	1.5	9.3
Museum operation	169	1.4	56.5

Source: Analysis from *Future Humanities Workforce* (forthcoming), using data from the Australian Bureau of Statistics Census 2016.

Table D4. List of primary and secondary humanities industries

Primary humanities industries	Secondary humanities industries
Architectural, engineering & technical services	Religious services
Tertiary education	Newspaper, periodical, book & directory publishing
School education	Advertising services
Local government administration	Television broadcasting
Creative and performing arts activities	Motion picture and video activities
State government administration	Public order and safety services
Adult, community & other education	Legal and accounting services
Central government administration	Allied health services
Computer system design and related services	Museum operation
Management and related consulting services	Scientific research services
Other social assistance services	Residential care services
Hospitals	Civic, professional & other interest group services

Source: Analysis from *Future Humanities Workforce* (forthcoming), using data from the Australian Bureau of Statistics Census 2016.

Table D5. Short-term and medium-term full-time employment outcomes by level of study and study area

	Undergraduate		Postgraduate coursework		Postgraduate research	
	2017	2020	2017	2020	2017	2020
Humanities, culture, and social sciences	61.9	87.0	81.2	90.5	73.7	87.1
All study areas	73.0	90.1	86.2	94.1	81.4	90.1

Source: Analysis from *Future Humanities Workforce* (forthcoming), using data from the Australian Bureau of Statistics.

Humanities Enrollments

The following tables show student load in the society and culture and creative arts fields at thirty-nine Australian universities, which are listed as Table A providers in legislation.

Table D6. Top Table A providers

Universities	State or territory	Metropolitan or regional
Central Queensland University	Queensland	Metro
Charles Darwin University	Northern Territory (NT)	Regional
Charles Sturt University	New South Wales (NSW)	Regional
Curtin University of Technology	Western Australia (WA)	Metro
Deakin University	Victoria	Metro
Edith Cowan University	WA	Metro
Griffith University	Queensland	Metro
James Cook University	Queensland	Regional
La Trobe University	Victoria	Metro
Macquarie University	NSW	Metro
Monash University	Victoria	Metro
Murdoch University	WA	Metro
Queensland University of Technology (QUT)	Queensland	Metro
Royal Melbourne Institute of Technology (RMIT)	Victoria	Metro
Southern Cross University	NSW	Regional
Swinburne University of Technology	Victoria	Metro
The Australian National University	Australian Capital Territory (ACT)	Metro

Universities	State or territory	Metropolitan or regional
The Flinders University of South Australia	South Australia (SA)	Metro
The University of Adelaide	SA	Metro
The University of Melbourne	Victoria	Metro
The University of Queensland	Queensland	Metro
The University of Sydney	NSW	Metro
The University of Western Australia	WA	Metro
University of Ballarat [now Federation University]	Victoria	Regional
University of Canberra	ACT	Metro
University of Newcastle	NSW	Regional
University of New England	NSW	Regional
University of New South Wales	NSW	Metro
University of South Australia	SA	Metro
University of Southern Queensland	Queensland	Regional
University of Tasmania	Tasmania	Regional
University of Technology, Sydney	NSW	Metro
University of the Sunshine Coast	Queensland	Regional
University of Western Sydney	NSW	Metro
University of Wollongong	NSW	Metro
Victoria University of Technology	Victoria	Metro
Australian Catholic University	NSW	Metro
Australian Maritime College	Victoria	Metro
Batchelor Institute of Indigenous Tertiary Education	NT	Regional

Source: Analysis from *Future Humanities Workforce* (forthcoming), using data from the Australian Bureau of Statistics Census 2016.

Looking at trends over time, humanities enrollments in Australia have increased. From 2005 to 2019, statistics for the aggregate society and culture fields, which encompass both social sciences and humanities, including law, show that student load went from 136,577 to 173,760 EFTSL (equivalent full-time student load), a 27 percent increase over the period.[118] These calculations are based on bachelor-level courses (see table D7). Digging into the data at a more granular level gives a fuller picture of variation between disciplines (table D8).

Tables D9 through D11 are snapshots of student load for 2018, at both undergraduate and postgraduate level, by gender. They also show total numbers of Indigenous students across the system and in the society and culture and the creative arts fields.

[118] Department of Education, Skills and Employment, "Equivalent Full-Time Student Load," https://heimshelp.dese.gov.au/resources/glossary/glossaryterm?title=Equivalent%20Full-Time%20Student%20Load%20%28EFTSL%29.

Table D7. Student load, 2005–19, by broad discipline group, bachelor-level courses, Table A providers

Broad discipline group	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Natural and physical sciences	66,185	67,471	69,577	70,651	75,203	80,145	83,308	87,593	91,934	94,454	96,221	98,593	100,127	100,853	102,974
Information technology	31,746	27,630	25,249	23,746	25,447	25,794	26,212	26,130	25,907	26,990	27,809	29,069	32,225	36,635	41,346
Engineering and related technologies	29,631	30,460	32,227	34,437	37,245	40,399	42,875	44,888	47,145	48,347	49,546	50,541	51,002	51,674	52,164
Architecture and building	11,668	12,075	12,832	12,427	13,419	13,645	14,257	13,905	13,595	13,762	13,905	14,372	15,274	16,536	17,025
Agriculture, environment & related studies	5,725	5,993	5,855	6,174	6,423	7,132	7,253	7,683	7,970	8,316	8,469	8,528	8,557	8,190	8,862
Health	52,032	56,631	62,462	66,564	71,284	76,953	82,412	87,377	91,584	95,326	99,443	103,858	108,019	113,584	116,070
Education	39,309	39,375	38,847	38,797	39,700	40,948	41,437	43,540	45,636	47,105	46,713	45,220	45,511	44,727	43,710
Management and commerce	90,126	95,221	97,586	101,848	109,396	114,808	116,023	114,553	112,046	110,103	110,723	112,723	114,004	113,711	112,616
Society and culture	136,577	137,217	139,215	140,997	148,061	154,844	158,557	161,682	164,336	165,549	168,878	170,317	172,007	172,213	173,760
Creative arts	40,453	40,561	41,535	43,182	45,679	48,300	49,262	51,007	53,229	55,167	54,536	54,817	54,573	54,884	56,297
Food, hospitality & personal services	139	190	173	202	167	178	133	122	136	123	127	128	78	116	95
Mixed field programs	2	2		5	6	113	147	135	271	400	231	319	372	757	1,037
Total	503,594	512,826	525,557	539,028	572,028	603,259	621,876	638,615	653,790	665,641	676,601	688,646	701,750	713,881	725,958

Source: Department of Education, Skills and Employment, Higher Education Statistics Collections, Student Load Time Series available at https://app.powerbi.com/view?r=eyJrIjoiZWM4OWM3OWYtMDRmYy00ZWY5LWIwMDAtYzQxMmVhOGQxMmJhIiwidCI6ImRkMGNmZDE1LTQ1NTgtNGIxMi04YmFkLWVhMjY5ODRmYzQxNyJ9view?r=eyJrIjoiZWM4OWM3OWYtMDRmYy00ZWY5LWIwMDAtYzQxMmVhOGQxMmJhIiwidCI6ImRkMGNmZDE1LTQ1NTgtNGIxMi04YmFkLWVhMjY5ODRmYzQxNyJ9.

Table D8. Student load, 2005–19, by broad discipline group, bachelor-level courses, Table A providers

Narrow discipline group	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
0900 Society and culture				2											
0901 Political science and policy studies	7,963	8,148	8,601	8,743	8,707	8,778	8,814	8,663	8,971	8,810	8,947	9,242	9,424	9,425	9,204
0903 Studies in human society	26,794	26,143	26,568	26,122	27,402	29,058	29,960	30,982	32,023	31,560	32,036	31,346	31,124	30,348	30,133
0905 Human welfare and welfare services	6,616	6,618	6,650	6,385	6,336	6,528	6,877	7,371	8,002	8,516	8,879	9,460	9,868	10,320	10,471
0907 Behavioral science	18,294	18,089	17,907	18,297	19,933	21,933	23,333	25,010	25,335	25,732	26,653	27,141	27,394	28,050	29,790
0909 Law	26,729	28,012	28,383	28,929	30,035	31,546	31,572	32,254	32,214	33,678	34,851	34,518	34,530	33,994	34,045
0911 Justice and law enforcement	4,671	4,574	4,674	4,786	4,899	3,760	3,833	4,226	4,648	3,651	3,935	3,890	3,829	3,989	4,074
0913 Librarianship, information management & curatorial studies	517	390	378	333	357	439	451	449	414	385	380	357	338	316	348
0915 Language and literature	15,650	15,511	15,313	15,551	16,604	17,590	17,864	17,838	17,307	17,051	16,697	16,575	16,881	16,651	16,340
0917 Philosophy and religious studies	4,517	4,369	4,350	4,249	4,491	4,748	4,927	5,228	5,050	4,927	4,707	4,904	4,892	4,721	4,792
0919 Economics and econometrics	18,791	19,274	20,029	20,932	22,103	22,250	22,295	21,598	20,497	20,288	20,560	21,442	21,997	22,170	22,240
0921 Sport and recreation	1,938	1,829	1,882	1,918	2,072	2,116	1,999	2,013	2,087	1,948	1,649	1,495	1,392	1,377	1,296
0999 Other society and culture	4,098	4,260	4,480	4,751	5,123	6,098	6,632	7,051	7,787	9,002	9,584	9,948	10,338	10,851	11,028

Narrow discipline group	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1000 Creative arts															
1001 Performing arts	7,905	7,782	7,869	7,788	7,923	8,387	8,439	8,791	9,193	9,312	9,174	9,145	8,960	8,892	8,850
1003 Visual arts and crafts	6,717	6,731	6,904	6,864	7,146	7,334	7,371	7,502	7,652	7,671	7,367	7,321	7,143	6,983	6,559
1005 Graphic and design studies	6,206	6,639	6,699	7,032	7,569	8,217	8,598	8,211	7,858	8,007	7,724	7,638	7,782	8,135	9,244
2001 Communication and media studies	18,569	18,211	18,947	20,308	21,645	22,829	23,274	24,821	26,799	28,115	27,628	27,932	28,024	28,259	28,918

Source: Department of Education, Skills and Employment, Higher Education Statistics Collections, Student Load Time Series, available at https://app.powerbi.com/view?r=eyJrIjoiZWM4OWM3OWYtMDRmYy00ZWY5LWIwMDAtYzQxMmVhOGQxMmJhIiwidCI6ImRkMGNmZDE1LTQ1NTgtNGIxMi04YmFkLWVhMjY5ODRmYzQxNyJ9.

Table D9. Total bachelor-level student load, Table A providers, 2018

All bachelor level	Male	Female	Indigenous (male and female)	Total
	309,528	404,353	9,326	713,881

Source: Department of Education, Student Load Time Series, 2018, https://www.dese.gov.au/higher-education-statistics/student-data/selected-higher-education-statistics-2020-student-data-0.

Table D10. Bachelor-level student load by broad discipline group—society and culture and creative arts, Table A providers, 2018

Bachelor level	Male	Female	Indigenous (male and female)	Total
Society and culture	63,533	108,680	2,960	172,213
Creative arts	20,008	34,876	788	54,884

Source: Department of Education, Student Load Time Series, 2018, https://www.dese.gov.au/higher-education-statistics/student-data/selected-higher-education-statistics-2020-student-data-0.

Table D11. Total postgraduate research student load, Table A providers, 2018

All postgraduate research	Male	Female	Indigenous (male and female)	Total
	22,725	22,507	420	45,232

Source: Department of Education, Student Load Time Series, 2018, https://www.dese.gov.au/higher-education-statistics/student-data/selected-higher-education-statistics-2020-student-data-0.

Table D12. Postgraduate research student load by broad discipline group—society and culture and creative arts, Table A providers, 2018

Postgraduate research	Male	Female	Indigenous (male and female)	Total
Society and culture	3,559	5,075	178	8,634
Creative arts	916	1,194	48	2,111

Source: Department of Education, Student Load Time Series, 2018, https://www.dese.gov.au/higher-education-statistics/student-data/selected-higher-education-statistics-2020-student-data-0.

Table D13. Postgraduate research student load by narrow discipline group—society and culture, Table A providers, 2018

Postgraduate research Society and culture	Male	Female	Indigenous (male and female)	Total
Studies in human society	1,025	1,424	83	2,449
Language and literature	313	630	12	943
Philosophy and religion	244	136	5	380
Other society and culture	180	317	18	497

Source: Department of Education, Student Load Time Series, 2018, https://www.dese.gov.au/higher-education-statistics/student-data/selected-higher-education-statistics-2020-student-data-0.

Table D14. Postgraduate research student load by narrow discipline group—creative arts, Table A providers, 2018

Postgraduate research Creative arts	Male	Female	Indigenous (male and female)	Total
Performing arts	298	275	14	573
Communications and media studies	237	334	6	571

Source: Department of Education, Student Load Time Series, 2018, https://www.dese.gov.au/higher-education-statistics/student-data/selected-higher-education-statistics-2020-student-data-0.

University-Based Humanities Workforce

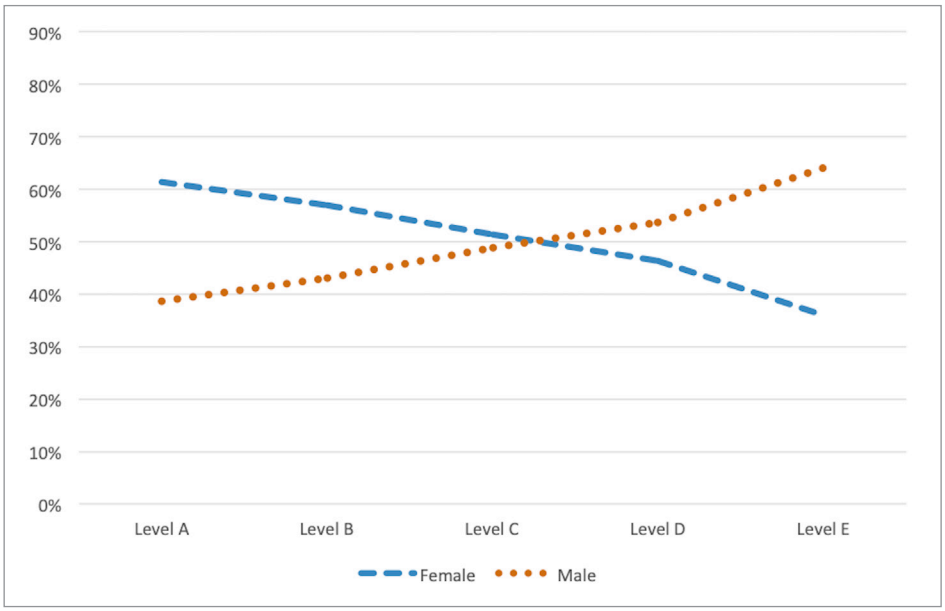
The following diagrams show employment in SHAPE and STEM fields at a macro level. Broadly, this is how the Australian system is understood, but the divide between SHAPE and STEM is often not the most useful way of understanding trends. There is more in common in the employment profile of philosophy and physics, for example, than within the humanities, and the gender profile of public health disciplines is far more aligned to the humanities fields than to STEM.

Table D15. Gender composition of Australia's academic research workforce, full-time equivalent (FTE), by humanities, arts, and social sciences (SHAPE) and science, technology, engineering, and mathematics (STEM) fields, 2017

	Female	Male	Total
SHAPE	8,359.6	8,118.9	16,478.5
STEM	9,573.9	14,566.5	24,140.4
Total	17,933.5	22,685.3	40, 618.9

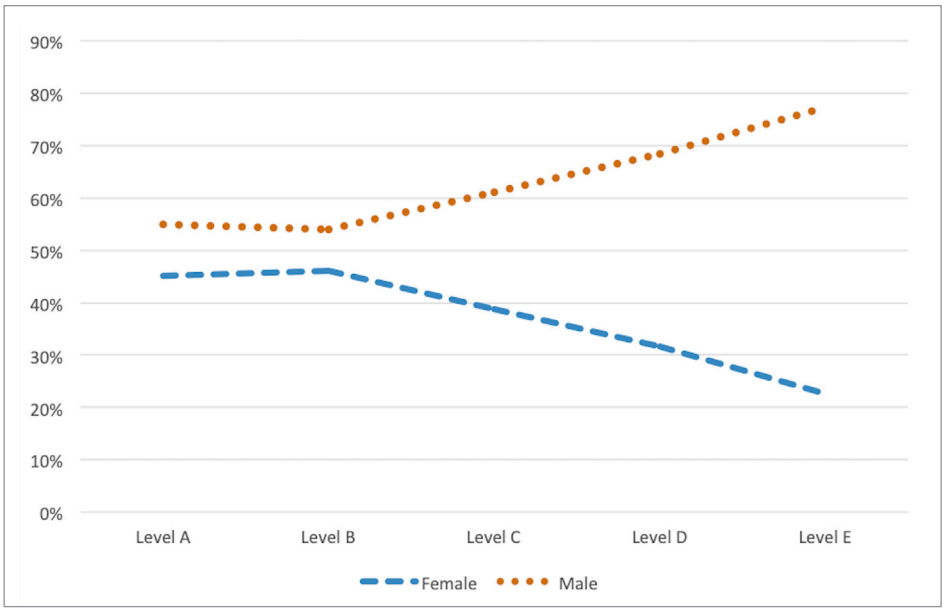
Source: Australian Research Council, Excellence in Research for Australia, Gender Workforce Report 2018, https://dataportal.arc.gov.au/ERA/GenderWorkforceReport/2018/pages/section4/.

Figure D1. Percentage of male and female staff (FTE) by employment level—humanities, arts, and social sciences



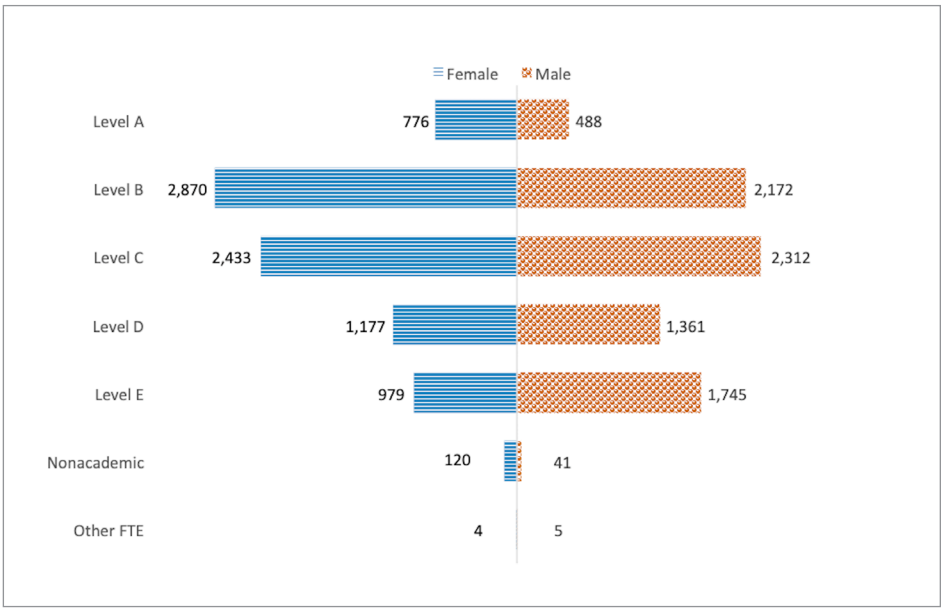
Source: Australian Research Council, Excellence in Research for Australia, Gender Workforce Report 2018, https://dataportal.arc.gov.au/ERA/GenderWorkforceReport/2018/pages/section4/.

Figure D2. Percentage of male and female staff (FTE) by employment level—science, technology, engineering, and mathematics



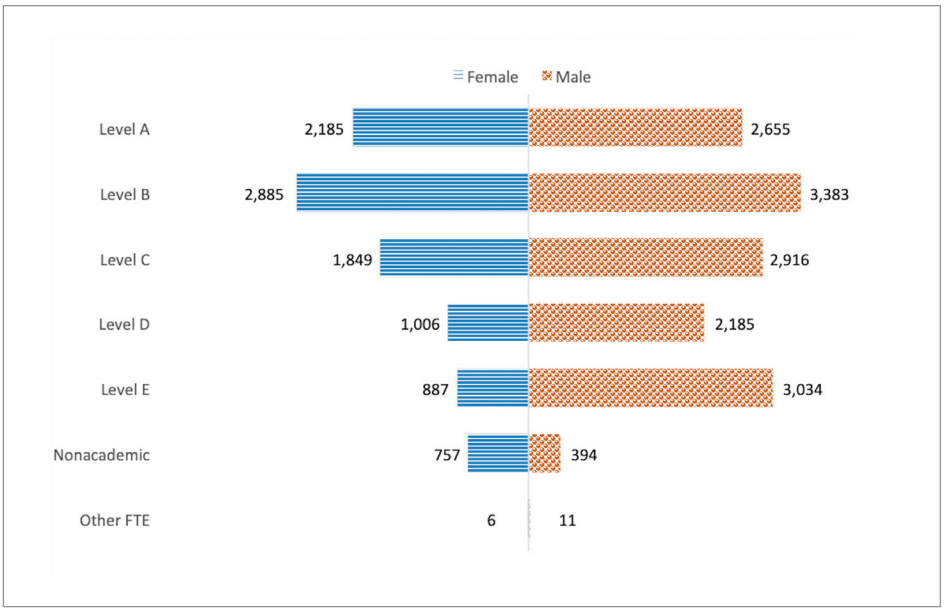
Source: Australian Research Council, Excellence in Research for Australia, Gender Workforce Report 2018, https://dataportal.arc.gov.au/ERA/GenderWorkforceReport/2018/pages/section4/.

Figure D3. SHAPE research workforce by gender and employment level, full-time equivalent (FTE)



Source: Australian Research Council, Excellence in Research for Australia, Gender Workforce Report 2018, https://dataportal.arc.gov.au/ERA/GenderWorkforceReport/2018/pages/section4/.

Figure D4. SHAPE research workforce by gender and employment level, full-time equivalent (FTE)



Source: Australian Research Council, Excellence in Research for Australia, Gender Workforce Report 2018, https://dataportal.arc.gov.au/ERA/GenderWorkforceReport/2018/pages/section4/.

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Will Christie, now emeritus, was professor and head of the Humanities Research Centre at the Australian National University (2015–21) and, before that, professor of English literature and pro-dean for research in the Faculty of Arts and Social Sciences at the University of Sydney. He was founding president of the Romantic Studies Association of Australasia (2010–15) and director of the Australasian Consortium of Humanities Researchers and Centres (2015–21). He is a Fellow of the Australian Academy of the Humanities and was Head of its English Section (2015–17).

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Annamarie Jagose is a Fellow of the Australian Academy of the Humanities and the Royal Society of New South Wales, and provost and deputy vice-chancellor of the University of Sydney. She joined the university in 2011 as the head of the School of Literature, Art and Media and was dean of the Faculty of Arts and Social Sciences in 2017–21. Jagose is the author of a number of monographs and an award-winning novelist and short story writer.

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