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Knowledge moves us.

2024 Student Research Conference

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Foreword

A warm welcome to the ANU Student Research Conference (SRC) 2024!



On behalf of the Deputy Vice-Chancellor (Academic) portfolio, the University Experience division, and the Student Life team, it is my privilege to welcome you to this year's conference. The SRC provides a unique opportunity for undergraduate, Honours, and postgraduate coursework students to engage with the research practices that develop and disseminate the innovative ideas that move the world. Ideas that shape people, policy, and practice in the university, government, and corporate sectors, and beyond.

Knowledge moves us. The theme of the conference is this significant idea: knowledge has a profoundly activating effect – it rouses us to innovate; it inspires and facilitates us to connect with one another; knowledge stimulates emotional and intellectual responses; it drives us to push our world forward in progress.

I sincerely hope that you find this conference to be a thought-provoking, inspirational, and valuable contribution to your university experience. I hope that it provokes ideas that shape our world and create meaningful change through your future research and employment.

An academic conference is a meeting of minds and people. Conferences all over the world are happening because educated people know that we need to work together to refine our knowledge – to use it responsibly and to apply it to problems that we face now and issues that may arise in the future.

The SRC exists to introduce students to this practice and philosophy of knowledge exchange. Research development is crucial at every level because it allows students – whether undergraduates or our most distinguished professors (for, we are all life-long learners) – to refine their knowledge and their ability to find information, and to develop new ideas and methods of tackling problems in a collaborative environment.

Future research careers start at the SRC. Through the pre-conference workshops that teach students to write an abstract and refine aspects of their presentation skills, the SRC is developing future researchers – both within the university and beyond.

I would like to take this opportunity to extend my gratitude to the academic staff and postgraduate students who have contributed as abstract reviewers and judges. Many thanks to the ANU Student Life for your brilliant work in developing and running this year's conference. An enormous thanks, also, to the team at Academic Skills for contributing to the pre-conference skills-based workshops.

Finally, thank you to the ANU Vice-Chancellor, Distinguished Prof. Genevieve Bell, and Deputy Vice-Chancellor, Prof. Grady Venville, for your support of SRC.

Congratulations to all of the student presenters who will be sharing their research with the ANU community at this year's conference.

I wish you all the best of luck and I look forward to seeing how your work will develop to shape our collective future and contribute to the solutions that our world needs.

Lisa Kennedy

Director, University Experience



Conference Schedule

13 Friday
September

All sessions are held at Marie Reay Teaching Centre, Level 6 - Superfloor

9:00 - 9:15 a.m.

Welcome to Country

9:15 - 10:00 a.m.

Registrations & Morning Tea, followed by Welcome Address

10:00 - 11:00 a.m.

Student Presentations: *Green Spaces, Parasites, Lasers, & Ancient Kingship*

11:00 - 11:30 a.m.

Keynote Address by Professor Matt Tomlinson

11:30 a.m. - 12:15 p.m.

Student Presentations: *Poster Highlights*

Lunch Break & Poster Hall Exhibit: 12:15 - 1:00 p.m.

1:00 - 2:00 p.m.

Student Presentations: *Twinkling Black Holes, Irish Literature, and Pacific Politics.*

2:00 - 3:00 p.m.

Student Presentations: *Women's Rights, AI Justice, Japanese Art, and ChatGPT Translations.*

3:00 - 3:45 p.m.

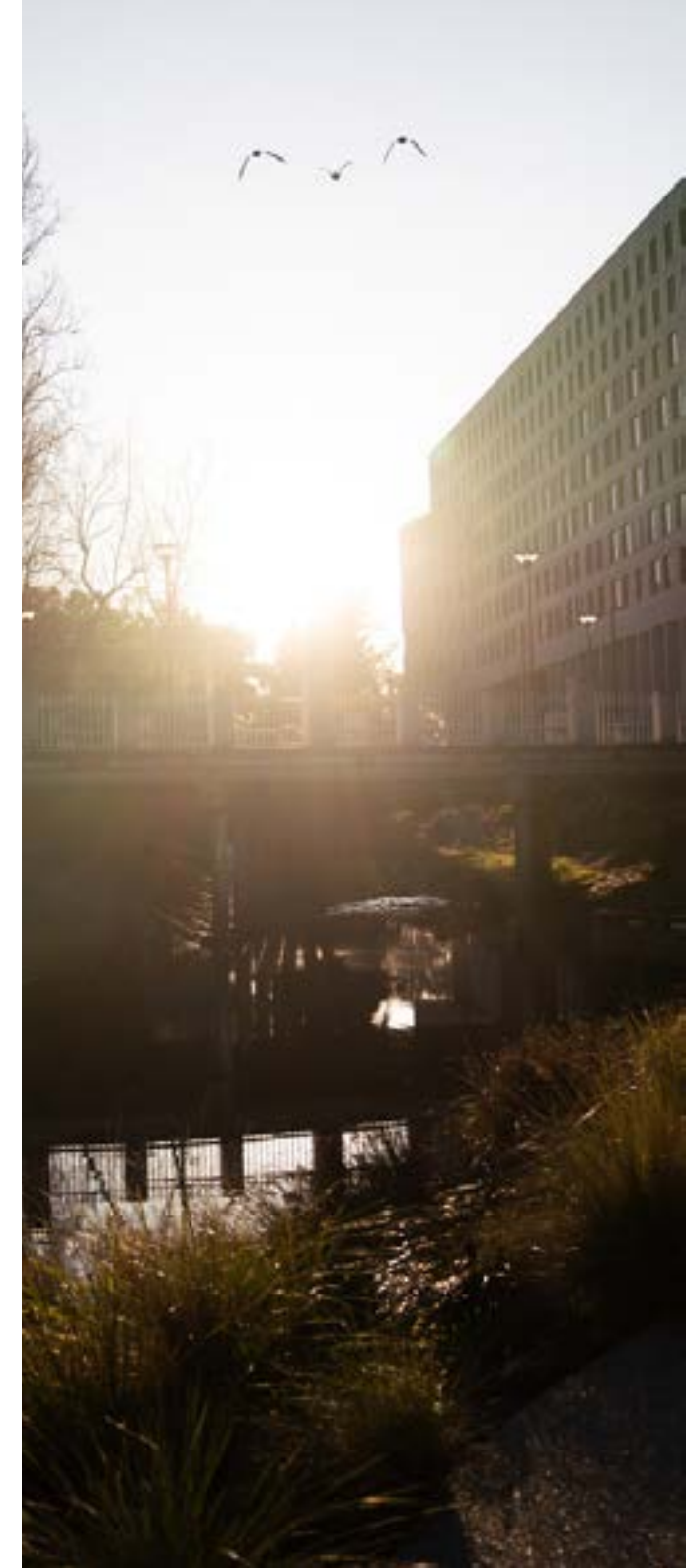
Immersia 2024 Gharba Dance Workshop: *ACT Desi*

3:45 - 4:00 p.m.

Afternoon Tea

4:00 - 5:00 p.m.

Closing Address and Presentation of Awards



Session Highlights

Feast of Strangers: Academic Networking Reception

Friday, 13 September, 5:00 -6:00 p.m.

Get a taste for academic networking by connecting with the wider ANU research community at the 2024 Feast of Strangers event. Join this networking opportunity and indulge in canapés and light refreshments.

Students are invited to connect with fellow peers and academic staff including PhD students from a range of disciplines to increase your confidence with academic networking, build useful connections and identify practical steps towards achieving their research aspirations.

ANU staff open to sharing their experience and advice to aspiring student researchers are highly encouraged to attend.

We invite you to join us at Badger & Co. for this event from 5:00 p.m.

Awards Ceremony and Closing Address

Friday, 13 September, 4:00 -5:00 p.m.

Join us for the closing address of the 2024 ANU Student Research Conference (SRC) delivered by the Vice-Chancellor, Distinguished Professor Genevieve Bell. Following the closing address, the Vice-Chancellor will announce the winners of the 2024 ANU Student Research Conference, acknowledge the achievements of the SRC organising team, and thank the key supporters of the 2024 conference. All student presenters, their supervisors, friends, family and supporters are invited to attend.

This event is open to the wider ANU community.



About the Student Research Conference

As one of the world's leading research institutions, ANU is proud to host emerging researchers from across the globe. Unlike any other university in Australia, ANU is uniquely positioned as the only national university. Founded in 1946, in a spirit of post-war optimism, our role was to help realise Australia's potential as the world recovered from a global crisis. It was envisioned at the time that Australia needed to build our national research capacity as we stepped into a more complex world.

Fast forward to today and we have a thriving research community underpinned by research-driven student development and leadership programs including the ANU Student Research Conference (SRC). The SRC is a multi-disciplinary conference that emphasises staff-student partnership and offers all ANU undergraduate, Honours and Masters by coursework students a program of conference events which have been designed for students by the Student Life team.

Research can begin with inquiry undertaken at coursework level. Students presenting their coursework research at SRC are doing so for the first time outside of the classroom and have successfully gone through a double-blind abstract review and feedback implementation process. Students presenting at SRC 2024 will be judged by a panel of academic staff who have volunteered in support of these students gaining real life skills presenting their research. The development of undergraduate research is extensively supported at the University through the Student Life team, our professional and academic partners, and the ANU Undergraduate Research Journal.

A Special Thanks to the 2024 SRC Judges

Dr Michael Anenburg

Dr Rabin Basnet

Dr Ana Casas Ramos

Dr Cian O'Driscoll

Charbel El Khaissi

Prof. George Lawson

Dr Kathy Wang

Assoc. Prof. Christian Wolf



Keynote Speaker



Professor Matt Tomlinson,
School of Culture, History, & Language

Prof. Matt Tomlinson is a sociocultural anthropologist who studies the relationship between language, politics, and religious ritual. At the heart of his work is the question of how people organise themselves to communicate with 'extrahuman' figures (including God, ancestors, and spirits) and what social effects such ritual communication has. After completing a PhD in Anthropology at the University of Pennsylvania in 2002, Matt has taught at Bowdoin College, Monash University, the University of Oslo, and the ANU (since 2012).



Prof. Tomlinson will provide the Keynote Address at the 2024 ANU Student Research Conference.



Green dreams for a City in Nature

Understanding Public Interests and Involvement in Singapore's Urban Green Spaces

Urban green spaces (UGS) are vital for the ecological and social well-being of urban environments and offer numerous nature's contributions to people (NCPs). Despite their importance, the extent to which UGS users in Singapore are involved in the governance of these spaces and their awareness of these NCPs has not been investigated. This study aims to address this and seeks to bridge the gap between UGS users and policymakers by aligning expectations and perceptions on informational needs. A mixed-methods approach was employed. Surveys were administered to a sample of UGS users to gather data on perceptions, knowledge, and desired involvement in governance. Semi-structured interviews were conducted with policymakers and experts to understand perspectives on the roles and informational needs of UGS users. Preliminary findings indicate that most participants have never been involved in activities in green spaces, but have interest in participating in physical activities if given the opportunity. Policymakers and experts recognise the value of user involvement, but highlight the need for enhanced communication and education regarding NCPs. This research highlights the importance of fostering a collaborative and participatory governance model, involving actively engaged and well-informed UGS users. The findings highlight the universal need for effective communication strategies to enhance the public's participation in governance and utilisation of green spaces. Aligning the expectations of UGS users and policymakers can help cities cater more effectively to the needs of their residents, which can promote more sustainable and effective urban greening initiatives globally.

Keywords: urban green spaces, nature's contributions to people, public participation.



Presenter: Priscilla Seah

Any questions? How did this inspire you?

Laser Surface Modification

Enhancing the Wetting of Olivine Minerals and Rocks

Enhanced weathering of olivine has been studied as a possible method for long-term carbon dioxide sequestration, as the mineral is relatively available worldwide and has a large carbon storage potential. Specifically at nickel mining sites, unused olivine-rich tailings exist that could significantly contribute to negative emissions when enhanced weathering methods are introduced. The potential for enhanced weathering of olivine and subsequent CO2 sequestration is primarily limited by its wettability.

This study investigates the use of widely available nano-second laser ablation as a novel approach to improve the surface roughness and wetting of olivine rich minerals and rock. Laser treatment was found to significantly increase the surface roughness of dunite slabs by 1300%, as measured by confocal microscopy, and contact angle goniometry revealed a subsequent substantial decrease in the advancing contact angle by 48-65 degrees (75-86% decrease), indicating significantly improved wetting. These findings show that laser ablation can effectively improve olivine wettability, with potential to increase the rate-limiting step of olivine carbonate mineralisation and therefore overall CO2 sequestration. Improved wettability is expected to reduce water requirements, making this process more environmentally friendly. This research demonstrates the potential of laser ablation to utilise readily available olivinerich mining waste for carbon capture, offering additional approaches to mitigate climate change.

Keywords: Carbon sequestration, enhanced weathering, laser treatment, olivine.



Presenter: Jack Brady

Any questions? How did this inspire you?

CRISPR Screen to Investigate...

The Flexibility and Redundancy in the Central Carbon Metabolism of Toxoplasma Parasites

Toxoplasma gondii is a parasite estimated to infect one third of the global human population and causes the potentially life-threatening disease toxoplasmosis. The parasite is capable of infecting almost any cell in any warm-blooded host and this promiscuity suggests the parasite can adapt to a wide range of host cell conditions with varying nutrient availability. Previous studies have suggested that parasites can alter their metabolism to use different sources of carbon for energy during their rapidly dividing life-stage. The tricarboxylic acid (TCA) cycle is a metabolic pathway that breaks down carbon sources to produce energy and other important molecules for the parasite. Whilst the cycle is essential for parasite proliferation, two of the nine enzymes involved appear to be dispensable for parasite fitness. One of these enzymes, malate:quinone oxidoreductase (MQO), was found to have functional redundancy provided by another enzyme that catalysed the equivalent reaction in a different cellular compartment. Here, I use the gene editing technology CRISPR/Cas-9 to experimentally determine whether similar metabolic redundancies occur for the second enzyme, citrate synthase (CS). I measured the contribution of 1044 genes to parasite fitness and determined how the contribution of each gene changes when the parasite loses the CS enzyme. I compared these results with changes that occur when the parasite loses the MQO enzyme to highlight shared and distinct metabolic redundancies. I found that another metabolic process, anaerobic glycolysis, provides redundancy for parasites missing either enzyme of the TCA cycle. Additionally, I identified numerous other enzymes and metabolic pathways that provide redundancy specific to the loss of CS. Altogether, these findings provide further insights into the metabolic flexibility and promiscuity of *T. gondii*.



Presenter: Bridget O'Sullivan

Any questions? How did this inspire you?

The Functions and Roles of the Spartan Kings

Their Significance in the Government of the Polis

The Spartan kingship is one of the most important but least understood forms of government in Ancient Greece. Sparta was one of the first city-states (poleis) of Ancient Greece to have a written constitution, and it was also the only state to be a dyarchy, that is, to have two kings, forming a part of a mixed constitution. The ancient accounts which historians rely on as sources for Sparta are incredibly few. Most accounts are written by later Greek historians and biographers such as Herodotus, Xenophon and Plutarch, with their own agendas and perspectives, shaped by the contexts of their lives and the socio-political culture at the time.

This paper examines the effectiveness of Spartan kings, especially in the military sphere. By reading the ancient literary sources and critically evaluating their content, aims, and agendas, it was found that the Spartan kings had significantly more influence and effect on policymaking than some historians had previously allowed. This was, in part, due to the underlying influence which came with many of the ceremonial roles executed by the kings, such as their religious duties, ability to hold positions on exclusive councils, and exercise patronage. The kings' role as military leaders was also examined, and determined to be far from ineffectual and in fact more extensive than at first it might have appeared. In conclusion, the study demonstrates the effectiveness of the Spartan kings within their society and their ability to act with political agency in their own right. This has implications for how we view Sparta's mixed constitution and the governing structures of Spartan society.

Keywords: Spartan kingship, polis, dyarchy, mixed constitution, hereditary generalship.



Presenter: Hannah Finkelde

Any questions? How did this inspire you?

Poster Presentations

Ni Putu Maitri Nara Suari

The Pattern of Discretionary Spending and Spending Quality: A Study from Indonesia Simultaneous Local Election 2020

Jessica Mills

Investigating the Milky Way's Evolution Through Birth Radii Analysis of the High and Low- a Disks in APOGEE DR17

Raida Chowdhury

Generational Gap: Why Young Australian Voters are Moving Towards Independents and Minor Parties

Amelia Peardon

Is Bigger Better?

*The Winner-Loser Effect in Guppies (*Poecilia reticulata*)*



Leonard Felix Sadewa Siahilan

Self-supervised Pose Estimation of Larval Zebrafish for Behavioural Quantification in Neuroscience



Poster Presentations

Sakura Takahashi

Field Survey and Narrative Review of Impacts of River Gravel Extraction on Economy, Environment and Society in Fiji

Liyun Zhu

Advancing Video Anomaly Detection: A Concise Review and a New Dataset

Matthew Laurence

Probing Galaxy Formation Feedback with Force Field Analysis of Simulated Milky Way Dark Matter Halos

Qianyi (Arthur) Zhao

Bushfire Detection Using Environmental Monitoring Sensing and Deep Anomaly Detection Approach

Hin Yeung Chu

"It will probably be the only recognition I will get": A Study of the Unofficial Spanish Civil War Memorial in Canberra

Poster Presentations



Grace Boglev

Analysing Demographic Trends at the Hugo Awards – How Award Recipients Reflect Actual and Aspirational Demographic Trends



Alicia Fox

An Exploration of Peer-to-Peer Electricity Trading Microgrids in an Australian Context



Emmanuelle Dunn Lewis

Potential Partners for Pacific Prosperity? Australia-France Collaboration on Development to Advance Gender Equality

Decoding the Twinkling of Supermassive Black Holes

Active galactic nuclei (AGN) are the most luminous objects in the universe. They are situated in the centres of galaxies and are powered by accretion of matter onto a supermassive black hole. The infalling matter forms an extremely bright accretion disc around the black hole, which can be observed from billions of light years away. The brightness of the accretion disc fluctuates, and this variability in brightness has been found to correlate with AGN luminosity and black hole mass. Thus, AGN variability has the potential to be used to probe its properties. This is pivotal for many fields of astronomical research because AGN play an important role in the formation and evolution of galaxies. However, almost all research in this field has been performed on high-luminosity AGN. This is because in the low-luminosity regime, the light from the galaxy where the AGN resides in is not negligible relative to the light from the AGN, and it is difficult to disentangle the two components. Thus, it is unclear if the observed trends in the literature persist in the low-luminosity end. In this thesis, we characterise the variability of 249 low-luminosity AGN using their light curves, and account for the light from the galaxy by fitting models to spectra. We find that the variability is anticorrelated with AGN luminosity and positively correlated with black hole mass. Our results suggest that the observed variability in the low-luminosity regime is inconsistent with some previous works, and that AGN variability could be caused by multiple components. Therefore, more research needs to be done before AGN variability can be reliably used to measure their properties.

Keywords: astronomy, astrophysics, black holes, active galactic nuclei.



Presenter: Ashley Hai Tung Tan
Any questions? How did this inspire you?

Ireland, the “Centre of Paralysis”

The Trap of Colonial Culture in James Joyce’s ‘The Dead’

There is extensive scholarship, such as Said (1979) and Berlin (1958), that explores the cultural power imbalance constructed between European imperial powers and their colonised states. However, many of these case studies are limited to examinations of Asian and African colonial subjugation. As a result, comparatively little research has been conducted into the British colonisation of Gaelic Ireland. This seven-century long occupation relied heavily on a deliberate suppression of national self-determination through the systemic restriction of Irish history, culture, and identity. This study explores this dynamic through a close textual analysis of James Joyce’s short story ‘the Dead’ (1914), highlighting how the imperial sympathies and context of the text’s protagonist, Gabriel Conroy, dictate the narrative’s structure and reliability. In an attempt to endear himself to the perceived superiority of the colonising elite, Conroy deliberately distances himself from his Irish heritage, thus demonstrating the effectiveness of Britain’s cultural colonialism. However, rather than advancing his personal capital, Conroy’s attempted assimilation fails to counteract the limitations of his Irish identity, instead reinforcing the cultural alienation between Britain and its colonial subjects. Due to the divisive nature of British imperial control, Ireland’s populace has been isolated from its historical cultural knowledge and has subsequently been unable to create the sense of national identity required for its existence as a post-colonial state. By exposing the cultural destruction caused by Britain’s inter-continental control, this study warns of the dangers of public acceptance of imperial oppression, instead presenting cultural connectivity as a powerful form of anti-colonial resistance.

Keywords: realism, post-colonialism, history, imperialism, Ireland, Joyce.



Presenter: Achilles Bradfield

Any questions? How did this inspire you?

Potential Alternative Partners?

Pacific Island States and the Emergence of Japan and South Korea

In an era of geopolitical competition for the Pacific region, new and emerging actors are showing more interest in this region. Recent research in the geopolitics of this region has been focused on the rise of Chinese influence, but other non-traditional powers have recently shown notable attempts to further engage with the Pacific. Notably, in 2023, South Korea hosted the first Korea –Pacific Islands Summit, where President Yoon stated that the Pacific Island states and South Korea are “in the same boat in the vast sea of the Pacific Ocean, that will sail vigorously for common prosperity” (Han, 2023). Similarly, Japan has also expanded its engagement with Pacific Island countries. At the Ninth Pacific Islands Leaders Meeting in 2021, then Prime Minister Suga announced the Pacific Bond Policy to enhance people-to-people exchanges and strengthen ties with the region (MOFA, 2021).

This research explores the motivations behind Japan’s and South Korea’s increased engagement with the Pacific Islands region. By conducting a qualitative analysis of policy documents and existing literature, I find that these countries are primarily driven by the need to secure their strategic interests amid the geopolitical rivalry with China. However, unlike the major powers, South Korea and Japan adopt narratives of inclusiveness aimed at aligning with the interests of the Pacific Island states and adhering to the Pacific Islands Forum’s 2050 Strategy on the Blue Pacific Continent.

Given the emergence of South Korea and Japan as significant actors in the Pacific, research on their engagement strategies is lacking compared to other actors. This paper seeks to fill this gap by providing a comprehensive analysis of their approaches and contributions to the region.

Keywords: Blue Pacific, Regional Politics, Japanese Strategy, South Korean Strategy.



Presenter: Hyunbin Ryu

Any questions? How did this inspire you?

Enemies to Friends

Exploring the strong bilateral relationship between the Philippines and Japan in the aftermath of World War II

The paper explores the transformation of Philippine-Japan relations from wartime animosity to contemporary partnership. Filipinos suffered extensive brutality, economic hardship, and cultural trauma under Japanese rule in World War II. Post-war, Japan was seen as a primary security threat. Yet, modern-day relations are characterized by strategic partnerships, significant trade, and widespread public trust. This study examines economic relations, political strategies, and shifts in historical narratives to explain this phenomenon. Japan's reparations and subsequent development assistance played a crucial role in building economic ties. However, findings suggest that economic factors were pivotal in mending ties initially, yet they alone do not account for the profound and widespread acceptance of Japan by Filipinos. The political elite's pursuit of economic benefits from Japan and the positive influence of Overseas Filipino Workers (OFWs) significantly altered the narrative of Japanese occupation. Additionally, Japan's soft power, through cultural exports like anime and tourism, helped cultivate a positive image among Filipinos. The influence of history education also contributed to reshaping perceptions, with textbooks emphasizing the positive aspects of Japanese contributions to Philippine society instead of the atrocities committed during Japanese occupation. This multifaceted approach, blending economic, political, and cultural diplomacy, facilitated the reconciliation and growth of a strong bilateral relationship. The insights from this study contribute to broader discussions on post-conflict diplomacy and the healing of historical animosities through strategic and cultural engagement.

Keywords: Philippines, Japan, bilateral relations, World War II, restoration, IR.



Presenter: Bianca Suarez

Any questions? How did this inspire you?

The Role of Narrative, Politics, and Religion...

In the advocacy of Sexual Violence Law in Indonesia

The process of passing the first Sexual Violence Bill in Indonesia was extremely controversial. There was a deep polarisation of attitudes across society. Conservative groups were resisting the enactment of the new law, despite strong advocacy from women's rights groups. Finally, in 2022, the parliament passed Sexual Crime Law No. 12/2022 (UU TPKS) to provide a comprehensive umbrella law to address sexual violence. The passing of the law was considered a win for women's rights advocacy, but it remains unclear what actually drove the success—for example, how much influence advocacy had and what strategies were the most effective. This case study uses a range of policy advocacy frameworks to understand the effectiveness and appropriateness of the advocacy strategies and the political context. This paper finds that advocates pursue policy adoption by pressuring the public and decision-makers through feasible campaign tactics, and several factors contribute to the campaign's success. These factors are: a) a shift in narrative from a 'westernised' narrative, such as gender equality and feminism, to a more religious one, which involves collaboration with moderate Islamic groups to challenge conservative narratives; b) network expansion, including cooperation with two major beauty brands to reach a wider awareness; c) several high-profile sexual violence cases have drew public attention and served as leverage for women's rights advocates to advance their policy agenda; and d) current government's attempt to weaken the influence of conservative Islam. Understanding what is happening within the UU TPKS process enables us to comprehend how advocacy influences policy outcomes in general, particularly within religious and political contexts.

Keywords: policy advocacy, policy narratives, women's rights, sexual violence.



Presenter: Rhema Wijaya

Any questions? How did this inspire you?

Mapping the Future of Artificial Intelligence Adoption

In the Judiciary System in the Global South: A Focus on Indonesia

While it has been suggested that Artificial Intelligence (AI) adoption could reform the judiciary system, some concerns have been raised, such as the risk of AI negatively nudging the decision-making process by reinforcing bias and generating misinformation. A thorough future analysis, which explores multiple future scenarios and identifies factors that shape each scenario, could lay the foundation for developing risks-mitigating AI adoption strategy and governance. This essay aims to initiate a future analysis of AI adoption in the judiciary system within the Global South (GS) context that remains absent in the existing discourse about AI adoption. This essay explores the possible future scenarios of AI adoption and unravels factors that determine the future.

Secondary data were analysed using Inayatullah's first and fourth pillars of Six Pillars of Future Thinking (2013) which focuses on mapping and deepening the future. The causal layered analysis framework (2009) was also incorporated to enrich the analysis. Three possible future scenarios are constructed by reflecting on Indonesia as the case study. First, AI would become essential to aid clerical tasks in judiciary institutions, thus improving the judiciary system. Second, AI would be embedded into the system, causing dependence, and then inflicting deskilling among judiciary officers. The third scenario is that adoption initiatives would be deserted once AI is no longer deemed a prevailing novelty. Furthermore, the future of AI adoption is determined by the response towards these driving factors: lack of digital skills, comprehensive regulatory frameworks and infrastructures, and high technology dependency on other countries. Further studies incorporating all Inayatullah's pillars are needed to expand the presented analysis and develop AI adoption strategy and governance approaches suited to the GS context.

Keywords: Future analysis; AI adoption; AI governance, judiciary system; Six pillars of future thinking; Global South.



Presenter: Amelinda Kusumaningtyas
Any questions? How did this inspire you?

“Apolitical Art” and the Modernising State

The Gutai Art Association in Postwar Japan

The Gutai Art Association (Gutai) is often recognised as a pioneering Japanese avant-garde art group, active from 1954 to 1972. During these tumultuous years in postwar Japan, the Gutai artists were known for embracing the concept of originality by experimenting with unconventional materials to expand the boundaries of modern art internationally. Domestically, they were also known for a distinct separation from many proletarian art movements of the same period. Through an exploration of the Gutai artists' involvement in both domestic and international networks, and their application of art media, this thesis aims to investigate their enduring aspiration to engage with the global art scene with an apolitical stance, and how this vision was inseparable from their domestic experiences living throughout the modernising society of Japan.

By focusing on Gutai's unique position within the domestic artistic and cultural landscapes, this study begins by exploring influence of domestic contexts on the Gutai movement. It then examines Gutai's use of photography in their self-published journals, suggesting these photographs can be viewed as works of art rather than merely documentary archives, thus re-evaluating their approach to modernism. The study then analyses Gutai's effort to achieve visibility and recognition from international audiences, why this mattered, and the roles the state played in this process. Finally, it explores Gutai's legacy, examining whether Gutai's artistic nationalism and internationalism remain in today's Japan. By addressing these questions, this study will show that the Gutai movement' apolitical attitude and approach toward an imagined global art world were deeply intertwined with their domestic experiences, responding to and contributing to the modernising state of postwar Japan.

Keywords: Japanese postwar avant-garde, the Gutai Art Association, Japanese art, Japanese modern art, artistic nationalism.



Presenter: Sanle Yan
Any questions? How did this inspire you?

Can ChatGPT Effectively Conquer Translation Challenges Across Diverse Domains?

As an artificial intelligence language model, ChatGPT has been trained on vast amounts of textual data across various domains and languages. Although primarily designed for answering questions, generating text, and summarizing information, its extensive training on diverse textual data suggests potential for translation tasks. Understanding ChatGPT's capabilities and limitations in this area is crucial for enhancing its versatility and applicability, which offering a cost-effective and convenient alternative for translation needs. Therefore, this study investigates the performance of ChatGPT 4.0 in translating English to Indonesia across various domains in addressing the question of how effectively this AI language model can function as a translation tool. By quantitatively analysing error types and frequencies, this study examines a corpus that includes texts from nine domains: entertainment, legal, colloquial language, healthcare, financial, hospitality, general content, education, and IT. Text lengths range from 100 to 1000 words to ensure a balance between comprehensibility and annotation efficiency. The research employs the Unbabel error typology framework to evaluate translations, categorizing 31 error types into eight major groups. Errors are further classified by severity into minor, major, and critical. Results show that ChatGPT 4.0 performs best in translating general content, such as informational websites, and educational materials, including textbook chapters and lesson plans. Moderate accuracy was observed in technical manuals, IT documentation, hospitality content, healthcare information, financial reports, and simple legal documents. However, the model struggled with translations of colloquial language, social media posts, and entertainment content, where nuanced and idiomatic language posed significant challenges. Future research should focus on enhancing ChatGPT's ability to handle nuanced and idiomatic language, particularly in colloquial and entertainment contexts to further improve translation quality.

Keywords: ChatGPT 4.0, domain-specific translation, AI language model, Unbabel error typology.



Presenter: Siti Rahmatia Ntou

Any questions? How did this inspire you?



Knowledge Moves Us.

See You Next Year!

Until Then...

Immersia 2024

Monday 9 September – Monday 23 September

SRC are proud to be supporting Immersia 2024, a two-week festival to celebrate, through immersive events and activities, the diversity and rich cultures of Asia and the Pacific. In conjunction with the Immersia host, the School of Culture, Language and History at ANU, our program includes live cultural performances, a mindfulness workshop and a keynote. Find out more: immersia.anu.edu.au



Thank you for attending the 2024
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SRC 2024

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