Graduate Research Conference Programme

'Beyond the Doctoral Degree'

Day One- Monday 23 May

Time	Session
12.00-12.05	**Welcome and Housekeeping-** Jennifer Podesta, Graduate Research Development Officer
12.05-12.30	**Acknowledgement of Country and Official Opening –** Prof Renee Leon, Vice Chancellor, Charles Sturt University
12.30-1.30	**Keynote Speaker –** Dr Michelle Jamieson *Falling apart and together again: A fresh look at wellbeing in the light of the pandemic* Over the past two years, the novel conditions of the COVID19 pandemic have highlighted increasing challenges to maintaining wellbeing in the workplace. The need to continuously adapt to changing and uncertain circumstances, and to live with the discomfort these produce, have led to widespread experiences of stress, anxiety, fatigue and burnout. But how well were we before COVID? How comfortably did we balance our personal and professional commitments? And how much did we enjoy, and thrive in, our jobs? This presentation takes a fresh look at wellbeing in the light of the pandemic. Drawing on the lessons of recent years, it explores what a mindfulness-based perspective has to offer how we think about and practice wellbeing in an academic context. Specifically, it examines the relationship between health and work, and the role that self-awareness plays in keeping these elements in balance. Importantly, it emphasises the centrality of the physical body – of the embodied, sensate and felt – to these discussions, especially given the uniquely cerebral nature of academic work. Broadly, the paper advocates for a view of wellbeing as a lifelong practice that is foundational to a healthy career, and offers suggestions for ways to begin engaging consciously with this process.
1.30-1.45	**Changeover and tea break- 15 minutes**
1.45-3.45	**Concurrent Themed Breakout Session 1**
	Breakout Room 1 **Well-being and self-management** Moderator**:** Jennifer Podesta
1:45	Welcome and Introduction

1:50 **Sarah Smorhun**
Insider outsider: Maintaining a healthy work/research/life balance as a professional doctorate candidate

Jennifer Brown categorised four types of researchers, and I fit within the insider outsider realm. My experiences have highlighted that feeling of being immersed in my field of research but on the edges of it. While this can take a toll, it can offer benefits. As a mature aged professional doctorate candidate, working full time in my research field I find myself envious of PhD candidates, who are often able to fully focus on their research. However, my work experiences contribute to my understanding of the practical application of my research and enable me to see the practical application of my research along the way. Maintaining a healthy work/research/life balance can be challenging while navigating the unexpected along the research journey, but discovering what self-care looks like can be one of the most important things you can learn.

2:06 **Nicholas Steepe**- LGBTIQA+ Inclusion @ Charles Sturt
Come along to learn about LGBTIQA+ inclusion at Charles Sturt. You'll learn about our Ally Network and training, inclusion initiatives and projects we're working on, and find out how you can get involved!

2:22 **Melinda Green**- Manager, Student Counselling
Student Counselling is a part of Student Safety and Wellbeing and offer a range of services to support Graduate Research candidates.

2:38 **Ruth Pape**
A Doctoral Journey: Navigating gendered challenges from clinical practice in Papua New Guinea to Charles Sturt PhD candidate

Breast cancer is a health problem affecting over two million women worldwide. Early detection of breast cancer can be achieved through population-based breast screening programs. In Papua New Guinea (PNG), there is a high incidence of breast cancer affecting mostly younger women who typically present at the few mammography equipped health facilities with advanced stages of breast cancer. PNG has no dedicated nationwide breast screening program unlike Australia (BreastScreen Australia) or the United Kingdom (National Health Service Breast Cancer Screening Program). My doctoral journey was ignited in 2005 as a mammographer working to screen more than 3000 PNG women through a sponsored screening program. The key challenges in my journey from then to now include being an educated female working in a male-dominated society, securing prestigious scholarships to support my study, navigating a toxic higher education workplace and maintaining well-being whilst juggling being a wife and mother of five.

2:44 **Sheree Moore**
Making space for self-care? Juggling roles and relationships during a PhD, parenthood, a pandemic and natural disasters

My PhD application was written in the car while my partner drove us more than 5000km across the country to care for my father-in-law during his final days in 2017. I have since had a baby, navigated the challenges and joys of parenthood, started and completed a psychology internship, and worked as a nurse and psychologist in a variety of settings. We experienced the challenges of the bushfires and COVID 19. The entire time, my PhD has been in the background, motivating me through stressful times and challenging me with significant delays and unexpected events. During all of these experiences there has been a constant question screaming in my head - how do you make space for self-care? The

long journey has helped me to answer this question by giving me the knowledge, skills and strength needed to find 'me' during a PhD.

2:55 **Yasdan Mansourian**
From serious leisure to eudaimonic wellbeing: A research narrative

This paper reflects on the past four years of my ongoing research program at Charles Sturt University and maps it into an emerging conceptual framework. As an information scientist, I began my research with a few exploratory questions about how people seek, share, organise and use information during their leisure time. Among all types of leisure, I focused on 'Serious Leisure', including hobbies, volunteering, and amateurism. I limited my scope to the serious leisure perspective because previous studies indicated hobbyists, volunteers, and amateurs typically need to search, browse, collect, share, exchange, and produce a wide range of information resources to pursue their interests. However, my findings up to this stage reveal that information practices in serious leisure usually serve a bigger goal for the participants and help them develop a form of holistic and eudaimonic wellbeing which means constructing a more purposeful, meaningful, and joyful life.

3:03 Summary and thank you

Breakout Room 2
Methodologies (Quantitative)
Research Practice

Moderator: Emmaline Lear

1:45 Welcome and Introduction

1:50 **Allister Clarke**
Combining Multi-Source Data and Machine Learning Approaches to Predict Head Rice Yield in the Riverina Region of Australia.

Rice whole grain yield (WGY) represents the percentage of grains that remain unbroken during the milling process. With broken grains receiving approximately half the price of whole grains, maximising WGY is critical to the industry's milling revenue. The inability to classify WGY as rice is delivered limits the ability of SunRice to make post-harvest decisions that maximise WGY. This project has developed a series of variety-specific predictive models able to accurately predict WGY at the delivery stand. To develop the models, machine learning algorithms were applied to a dataset constructed from grower management records, crop phenology dates, post-harvest data, climate observations and satellite imagery. Validation of the model against historical data demonstrates strong predictive capability, with a 60.2% decrease in error when compared to the current industry practice of forecasting WGY. Additional data mining has uncovered the key factors contributing to WGY variation, improving grower understanding for future crop management.

2:00 **Claudia Macleay**
Finding patterns in data using multiple correspondence analysis to understand the causes and risks of equine pregnancy loss

Understanding the causes and risks of equine pregnancy loss is essential for developing prevention and management strategies to reduce the occurrence and impact on the horse

breeding industry. A scoping review on mid to late-term equine pregnancy loss was performed using the PRISMA-ScR guidelines. The review captured 514 records that met the eligibility criteria. A multiple correspondence analysis (MCA) was conducted to visualize, describe and find patterns in the data. The MCA analysis assigns weights to categorical variables creating a point cloud of data; clusters represent a group of records with similarities within the cloud. The analysis revealed seven clusters, which grouped records based on the cause of loss, the global region, and pathology and histopathology conducted on the foetus and foetal membranes. Exploring the reasons behind these clustering patterns should be the focus of future research as they might indicate undescribed risk factors associated with equine pregnancy loss.

| 2:09 | **Emily Birckhead** |
| | *Neutrophil Extracellular Trap (NET) formation in equine neonates* |

This study examines Neutrophil Extracellular Trap (NET) formation in young, unwell foals that have come to the Veterinary Clinical Centre at CSU for treatment. NET formation involves neutrophils releasing a web of DNA and associated antimicrobial molecules to entrap bacteria. Excessive NET release, as can occur with severe systemic inflammation and sepsis, can be harmful to the surrounding tissue. Increased NET release has been identified in humans and various animals with sepsis. There have been limited studies investigating NET release in horses and their role in inflammation and sepsis is unclear. This study uses an ELISA to measure nucleosomes, a NET marker, in blood samples from foals. Preliminary findings suggest there is a tendency for higher levels of circulating nucleosomes in bacteraemic and septic foals.

| 2:25 | **Selahattin Türen** |
| | *Analysing the Forum Activities and Real-time Detection of TOR Attacks from the Dark Web* |

Cybercriminal activities cause billions of dollars of damage across the globe. Since we live with the Internet every day, then cybercriminals can take an opportunity to spread their malicious activity rate exponentially. Credit or debit cards frauds, child pornography, human trafficking, drug dealing and selling weapons are examples of those malicious activities. Dark Web is the platform, which is used for organising these cybercriminal activities. The anonymity of users in the Dark Web makes it easier to communicate each other. My research aims to detect illegal forum activities in the Dark Web by developing a cybersecurity maturity model, which applies machine learning and AI techniques. This model is derived from The Prevention-Detection-Response-Recovery (PDR²) model by Kenneth Eustace et al. (2018). This model will have a standard which will help other researchers who are working with the illegal activities in the Dark Web.

| 2:41 | **John Xie** |
| | *Analyse your data using Bayesian Networks* |

Bayesian Network (BN) is a machine-learning data analysis technique and the BN modelling approach complements the traditional statistical data analysis approach in overcoming the curse of dimensionality and naturally capturing the independence and dependence relationships among model variables. Netica is the most widely used BN software in the world. Three Bayesian Network (BN) models developed in Netica are presented to showcase how to analyse your data using Bayesian Networks. If you can use Microsoft Word and Excel confidently in your work, you will be able to learn Bayesian Networks using Netica.

2:50   **Anne Johnson**
Endnote: top tips from a long-time user

They say first impressions count. Did you know some referees or thesis examiners look at the reference list first? Whether at the start or the end of your PhD journey, this talk is for those who want to present a top-notch reference list but haven't had the time to do all the courses. Working for many years as a research assistant I have corrected and formatted the reference sections of over 100 journal papers and theses. What is a must-have for a thesis or journal paper? Parts of this talk will be relevant for any reference database program. Endnote is my tool of choice, and I will show short cuts, common mistakes, and must-dos. How to take your thesis chapters and combine the reference list without going insane? Impress your supervisor, impress your examiners, and create a useful database for your long-term research career.

3:06   **Russell Dippy**
The Professional Doctorate - Learnings from going paperless (nearly)

A Professional Doctorate takes a lot of time and organisation and generates a lot of paper. Trying to reduce our environmental footprint when studying can be difficult. This paper will address the experience of using of various IT packages to support a paperless (or close to) study journey. Advantages of doing this not only include the reduction of environmental impacts from printing, but they also assist with the collation and storage of data. Just as importantly, if done correctly the security of the information and personal notes can improved so as to reduce the risks of IT hardware failures or losses during the study period.

3:21   **Elizabeth Harangozo** – Research Ethics and Integrity Officer
Many of you will not need to complete an ethics application for you research but ethics and integrity should be at the centre of all research

3:36   **Emily Webster**
The frustration of a hard-to-reach sample

Farmers are a difficult group to reach and engage. My PhD data collection started in 2020 by approaching different farming groups, such as NSW Farmers and Country Women's Association. This canvas approach employed a snowball sample with varying degrees of success. It was expected that the research would be of interest to farmers and farming groups, however, having no network to utilise and being unknown in the industry made reaching participants challenging. By the start of 2021 I had collected a sample of 44 farmers across NSW and Victoria. We ran the survey again in 2021/2022 with a private company network that was running a similar project, which yielded 180 participants. What I learnt was (1) if you are not in the industry, you really need friends who are, (2) people hate surveys, especially long ones, and incentives help, and (3) global pandemics do not help.

3:45   Wrap up and thank you - Moderator

**Breakout Room 3 –
Methodologies (Qualitative)**

Moderator: TBC

1:45   Welcome and Introduction

1:48
Sheree Moore
Examining the application of power in clinical practice: Foucauldian Discourse Analysis and Narrative Analysis combined

Foucauldian Discourse Analysis (FDA) provides a sociohistorical and institutional perspective of power. FDA is a post-structural approach which acknowledges the value of subjective information. It critically examines how dominant meanings within society can influence institutional understandings and practices, potentially contributing to the marginalisation of certain groups. Narrative Analysis can complement this approach by enhancing FDA's relevance and application within clinical settings. While FDA provides a critical depth that is essential for the deconstruction of assumptions that support problematic forms of power, Narrative Analysis examines how discourses can be woven together in specific settings to significantly alter the meanings and actions that impact on individuals and groups. I will discuss how the combination of these approaches was used to enhance the understanding of clinical practice and staff wellbeing within a remote hospital setting**.**

2:04
Jennifer Manyweathers
The power of the word: Thematic Analysis as a biosecurity research tool using a case study of Australian feral pig management

Management of invasive animal species (IAS) is a 'wicked problem', with competing and conflicting stakeholder priorities. Qualitative data from stakeholders can be useful for identifying important drivers for enhancing project success.   Thematic analysis is an under-utilised qualitative technique in IAS research. A case study of a landscape genetics of feral pig sub-populations project was used to demonstrate how thematic analysis of stakeholder semi-structured interviews can inform successful project implementation. The project highlighted the need to engage with existing networks and relationships and for flexibility in data collection approaches to meet the needs of diverse participants. Thematic analysis also allowed for the identification of relationship risk that exists amongst stakeholders, requiring careful management to strengthen the opportunities for project success. Thematic analysis is an efficient and cost-effective method, allowing for in-depth reflection on stakeholder perspectives, uncovering potential barriers to stakeholder adoption, and informing development of IAS management programs.

2:20
Dalanglin Dkhar
Data Through Documentary

According to the Australian Bureau of Statistics, in 2019, there are more than 2.65 million Australian carers. Extensive research exists about carers, however, the findings tend not to be shared beyond policy bodies and carer organizations. Hence there is a substantial gap in truly understanding the role of the carer in community. In this presentation, I will share how my study combines my background as a documentary filmmaker and, as a carer, with the latest research in the field. Utilising qualitative approach, I will be presenting new data through a documentary film. This unique research design integrates the traditions of phenomenology, documentary filmmaking, and analysis to critique and understand the lived experience of the carer. My PhD project aims to present an authentic and intimate description of carers. We will see and hear directly from them. It will hopefully bring much-needed awareness and recognition about the carer's contribution to Australia.

2:28   **Jennifer Hayes**
A mixed-method approach to determine the existence of chaos in Retail IT projects
A mixed-method approach to determine the existence of chaos in Retail IT projects, focusing on complementary applications of quantitative and qualitative methods to study historical artefacts, survey current prevailing attitudes, and identify project management structures and leadership styles that are more conducive to successful outcomes when complexity is inherent in the delivery. The research design for this problem fosters exposure of the intricacies, relationships, and perspectives across the data by employing a combination of quantitative and qualitative methods on an existing and dynamic retrospective quantitative dataset, using a constructivist grounded theory approach to provide a contextualised framework for the analysis, while introducing additional qualitative inputs obtained via surveys, interviews and focus groups. This combinatorial approach expects to disprove the acceptance that chaos theory can be applied to IT project management while accepting inherent project complexity and proposing an optimal Cynefin bound alignment of project, delivery methodology, and project manager**.**

2:37   **Jill Fenton-Taylor**
CSU Doctorate: Re-storying collective memory

This evocative autoethnography brings an insider perspective to the CSU doctoral journey. Here, two academics re-write and re-story their own experiences as higher degree research student, Supervisory Team member and post-doctoral scholar. The work re-examines several years of CSU researcher stories, interpretations written about them and how the meaning, of these stories for the researchers, has evolved. Drawing on Revision (Bochner and Ellis, 2016) the writers take published narrative snap shots and transform them into a 'kind of text-in-motion' that fast forwards stories into the present (p. 255). This reflexive writing tool invites us to consider how tentative and incomplete stories and memories are, expand our understanding of a culture and offer alternatives to staying stuck with old interpretations.

2:53   **Diane Cass**
Experiences of families where two or more members have been diagnosed with life-limiting/chronic illness

My research considers the experiences of families where two or more members have been diagnosed with life-limiting or chronic illnesses. The research approach involved examining quantitative, which generally considers an examination of the relationship between variables; mixed methods, which will generally combine some integration of quantitative and qualitative approaches; and qualitative, which was selected as it aims to explore the meaning that individuals/groups attribute to social or human problems. Assessment of qualitative research methods focused mostly on case study, ethnography, and phenomenology. Taking into account the number of participants, the cultural aspect of shared experiences, and the length of study sought, a phenomenological study was decided upon. Interpretive phenomenology necessitates the researcher recognize their own lived experience, whereas in descriptive phenomenology the researcher must completely put aside their own subjectivity and lived experiences. My personal experiences are important to this study, resulting in an interpretive phenomenological study being selected.

3:09	**Umut Tasdemir**
	Critical analysis of implementing affirmative consent standards in NSW sexual assault law

The aim of the research project is to analyse the new proposed sexual consent laws in NSW; affirmative consent. The significance of this research is relatively new, the proposed consent standards to be introduced into NSW will replace the current approach to consent. The research will investigate the pros and cons of adopting the new NSW standards, questioning whether they are in fact an advance, by comparing and contrasting the policies of affirmative consent that have been introduced into some US universities against the law reform discussions in NSW. The importance of this research project is to document and critically examine the law reform discussions, motivations for them, and new provisions as suggested and passed into law, and to analyse the implementation of the new consent standards in NSW and any unintended consequences.

3:25	**Johnathan Hewis**
	A spiral of confusion: learning how to 'do' hermeneutic phenomenology

Hermeneutic Phenomenology is both a philosophical framework and a collection of qualitative research methodologies. In this methodology, data collection and analysis are concurrent processes where data analysis comprises of continual writing, rewriting and reflection. The researcher as a research instrument, must continually explore and recognise their own assumptions or biases through reflexivity. Learning how to perform hermeneutic phenomenological inquiry can be challenging due to the lack of a clearly define procedure or linear method and the blurred boundary between philosophy and research methodology. Indeed, it is often suggested that the method of phenomenology and hermeneutics is that there is no method. This presentation I examine my own reflexive journey as a PhD candidate whilst conducting a hermeneutic phenomenology inquiry (guided by van Manen's framework) exploring the lived experience of distress in magnetic resonance imaging (MRI).

3:41	**Wendy De Luca**
	10 things I've learned about Constructivist Grounded Theory (by doing a PhD)

For many of us a PhD is our introduction to research; yet, throughout our candidature, we need to develop a high level of methodological expertise. While we may start out not knowing what we don't know, we gradually develop our knowledge and skills. In this informal presentation, I reflect on ten of the key lessons that I have learned about the Constructivist Grounded Theory methodology though the process of doing my PhD.

3:56	Wrap up and thank you - Moderator

3.45-4:00	**Changeover Break- 15 minutes**

4:00-5:00	**Keynote Speaker -** Prof Nick Hopwood
	How research can, and must, change the world

Research should contribute to positive change in the world. This seems uncontroversial, but the implications of this can be quite radical! I will argue that we need to debunk disguised ideology of neutrality to avoid upholding a status quo that is far from okay. I suggest we can – and need to be – committed in our research, and overt in those commitments. This does not negate empirical and conceptual rigour, but may lead us to

think differently about objectivity, what makes good research, and how we make a difference. I will build a case that rather than describing or explaining reality, research should be trying to undo the boundary between the real and the (im)possible: not accepting what seems beyond reach, but striving to make viable what is currently unthinkable, unachievable, and unheard of. By doing this, research can truly claim to play a role in making the world worth living in.

5.00-7.00	**Three-minute Thesis Heats – Heat 1** The 3MT competition showcases students' academic, presentation, and research communication skills and their capacity to effectively explain your research in a language appropriate to a non-specialist audience. The Asia-Pacific 3MT Competition is hosted annually by UQ and is held in over 900 universities across more than 85 countries worldwide. Judges: Andrew Hall David Cameron Martin Pal

5:10 **Joachim Bretzel**
School of Agriculture, Environmental and Veterinary Sciences
Fish protection screening at irrigation diversions in the Murray-Darling Basin

5.18 **Allister Clarke**
School of Agriculture, Environmental and Veterinary Sciences (Gulbali)
Rice Milling for Profit - Cracking the Code

5:26 **Justin Willoughby**
School of Indigenous Australian Studies
Indigenous learner experiences and identity development in a remote, bilingual education program

5:34 **Jennifer Hayes**
School of Computing, Mathematics and Engineering
Does chaos really exist in the IT projects that deliver solutions for your local retailer?

5:42 **Iswandi**
School of Customs and Excise
How to Fight Against Counterfeit Goods at the Borders

5:50 **Richard Carroll**
School of Education
Why is the high school IT "Crowd" becoming an empty room?

5:58 **Nyadoub Jok**
School of Dentistry and Medical Science
Sorghum: an ancient grain with chemopreventative potential

6:06	**Lauren Stoot**
	School of Agricultural, Environmental and Veterinary Sciences/ (Gulbali)
	Using fish ears as passports to understand movement in a coastal river system

6:10   **Judges Deliberations and Feedback**

6:25   **Announce finalists**

6:30   **Finish**

Day Two- Tuesday 24 May

Time	Session
3:00-3:05	**Welcome and Acknowledgement of Country**
3:05-4:00	**Plenary Session- Discussion Panel** – Interdisciplinary Research *This plenary session our panellists will explore the pros and cons of interdisciplinary research and how to make it work.* Panellists: Jennifer Bond - Moderator Ben Stodart Holly Randell-Moon Anthony Saliba
4:00-4:05	**Changeover Break- 5 minutes**
4:05-5:50	**Concurrent Themed Session 2**
	Breakout Room1 **Open themed research papers** Moderator: Anna Du Chesne
4:05	Welcome and Introduction
4:10	**Mahir Habib** *Cattle Information Events - Extending data schemas to meet the needs of the Australian red meat industry* Last forty years, data-driven genetic improvement resulted in a doubling of milk yield. Improved data standards enhance productivity, costs, and market access. Beef production has seen lower rates of genetic improvement and would benefit from data standardisation.

An event-based data schema will improve the capture, storage, and consumption of performance recording data. The International Community for Animal Recording (ICAR) developed a livestock data schema. Meat and Livestock Australia (MLA) extended ICAR's schema to deliver data standardisation. This article demonstrates how those schemas can be enhanced, modified, and used as event information messaging framework for data management and reduce costs involved in sharing information between the systems. The new schema LEI (Livestock Event Information) can improve traceability, genetic improvement, and business management, allowing third-party equipment and software manufacturers to utilise the data schemas to standardize their data flows. In future, LEI can be updated to include other agriculture sectors e.g., cropping.

4:26   **Sadia Nodi**
Smartphone Image-based Munsell Soil Color Classification using Deep Learning

Soil color provides a valuable insight into soil assessment/classification for farmers. Traditionally, the Munsell color system, with categorized values of hue, value, and chroma, has been used to label the soil color by comparing the soil sample against the color chips. Such a manual visual checking procedure is error-prone and subjective. Researchers proposed different ways to digitalize the Munsell soil color for soil classification. However, they either rely on extra sensors and a calibration card or need specific setting such as a shading bucket. This research is to demonstrate the performance of deep learning models on soil color estimation from phone images captured naturally. Multi-layer convolutional neural networks are constructed and optimized through training. It shows good potential to provide a simple, fast, and inexpensive characterization of Munsell soil color. Eventually, this research can assist Australian farmers in monitoring soil health and making timely decisions for better crop productivity.

4:37   ***Nan Wang***
Modelling land use changes in wheat production in key variables- Wheat Sheep Zone

As the primary producers of agricultural products, farmers' decisions affect grain output, sown area, and land use. Most studies believe that farmers' expected prices of agricultural products are the main factors affecting their decision-making. For the wheat-sheep region, the expected prices of wheat and wool and the expected relative prices of wheat and wool may affect the area and output of their respective agricultural products. The results are discussed in view of guiding the decision on land use. This paper conducts regression analysis on relevant panel data for the period 2000-2020 to explore the response of wheat sown area in the wheat-sheep zone to prices and other factors based on the Nerlove Model, to investigate the factors that affect farmers' decision-making on land use. The results indicated that the current sown area of wheat is greatly affected by the previous sown area. However, although the price of wheat in the previous period positively impacted the sown area, the impact was not significant. The short-term price elasticity was small; the long-term price elasticity was more significant than the short-term, which implies that the market price of wheat fluctuates, and farmers usually cannot adjust the sown area of wheat in a short period according to the market price signal to adapt to the changes in market supply and demand.

4:46   **Dwi Atminarso**
Evidence of fish community fragmentation in a tropical river upstream and downstream of a dam despite the presence of a fishway

Rapid human population growth has increased demand for water supply, food security, electricity, and flood mitigation worldwide. To address these challenges, the Indonesian government has invested in the expansion of water infrastructure. However, there is

substantial evidence that globally, this infrastructure fragments fish populations and impacts on the persistence of migratory fish. To document the impact of barriers to Indonesian fish, we conducted experimental fishing using three different gears (gillnets, castnets, and bait traps) in the Komering River at five sites upstream and downstream of Perjaya Weir. The study revealed a significant difference in the fish community upstream and downstream of Perjaya Weir with 13 of 36 species being found only downstream of the weir and five species only found above the weir. The results indicated that the Perjaya Weir hinders fish migration, and the fishway facilitates movement for a small proportion of the fish community.

4:57   **Ghulam Hassan**
Groundwater a driver for boosting irrigated agriculture to support national growth now under threats in Punjab Pakistan

Irrigated agriculture is the most economically important sector in Pakistan, contributing 26% to the Gross Domestic Prduct and earning about 75% of the foreign exchange. Agriculture provides employment opportunities to 54% of the labour force for a population increasing at an annual rate of 3% and contributes to economic development of the country. It underpins food-security and the livelihood of a multitude of tiny rural farming communities. Agriculture is dependent on the availability of water and recent studies have revealed that groundwater contributes to approximately 40-50% of irrigation water requirements. Factors such as climatic change, small numbers of dams, poor governance, urbanisation, industrialisation, lack of awareness and capacity, lack of scientific knowledge/use of innovation, non-effective regulation, uneven distribution of surface water, and the increasing population are continuously depleting the groundwater table. More than 1.2 million tube wells installed in different areas of Punjab are continuously extracting groundwater, threatening the sustainability of irrigated agriculture in the province. Access to groundwater allows the underprivileged population to conserve it for agriculture, which not only increases their production and income, but also reduces their vulnerability against external pressures. Excessive use of groundwater has resulted in severe impacts in water quality and has also increased the frequency of water-borne diseases, resulting in more than 70% of diseases being water-borne. Groundwater has resulted in a green revolution in Punjab, however it is under serious threat due to unplanned excessive pumping of water, deterioration of quality and increased costs due to falling water tables.

5:15   **Madeleine Ray**
Parasites of Australian native ducks and how they influence measures of stress

Birds play a significant role in the spread of diseases, as they can fly and migrate over great distances in short periods of time. Waterbirds are of particular interest to parasitologists, as it has been suggested that they are exposed to a greater diversity of parasites as they use both aquatic and terrestrial environments. Moreover, waterbirds aggregate in large numbers in wetlands, which further accelerates intra- and inter-specific transmission of parasites. In Australia, the knowledge of parasite species infecting wild waterbird populations is lacking with the last major piece of work being published over forty years ago. Furthermore, there have been only a few studies that have examined how infection with haemosporidian parasites influences haematological indices of stress in birds. By conducting necropsies, helminth parasites can be identified and illustrated. While sampling independent measures of stress can be used to determine whether parasite infection affects stress indicators.

5:31	**Rabin Dulal** *A comparative review and future direction of object identification techniques*
	Object detection and identification is an easy task for a human. However, it is not easy for computers. Though it is a complex task, recent research and publications have achieved success in the detection and identification of biometrics and other various patterns and other objects. Moreover, there are many publications for object identification, but they failed to provide a comparative and comprehensive study of available algorithms. This paper aims to provide a profound discussion on object identification. Secondly, this paper covers the latest industry practices for identification. After careful comparison and study of past and present techniques, this paper will project the future path and goals. Most of the earlier papers cover technical details and techniques, but this will cover the latest projects, strengths, and weaknesses of the algorithms, challenges as well. In addition to this, we provide a theoretical justification for the development of the robustness objection identification system.
5:40	Summary and thank you

5:50-6.00	**Changeover break – 10 minutes**

6:00-6.55	**Plenary Session - Discussion Panel –** You can't ask that! *In this plenary session our panellists will answer questions about research and the HDR program that students have submitted anonymously in advance,* Panellists: Emmaline Lear- Research Development Officer (Moderator) Melanie Massaro Judith Anderson Paul Humphries Paul Shaw- Graduate Research Manager

6.55-7:00	**Changeover Break- 5 minutes**

7:00-8:00	**Keynote Speakers -** Dr Susie Miles and Dr Nicholas Merton *Accessing Leadership: Creating a future that wasn't going to happen anyway.* The transformational leadership course, "Being a Leader: An Ontological/Phenomenological Model" has been offered in universities as diverse as Canada, Kenya and Vietnam over the last decade or so. It has a revolutionary approach which leaves participants actually being effective leaders, rather than merely knowing more about leadership. This keynote will answer the following question: "How is it possible to teach leadership in a way that not only informs students about leadership but also transforms them into actually being effective leaders?" Susie Miles and Nicholas Merton will share their experience and demonstrate the methodology used in the 'Being a Leader' course, which defines leadership as "making a future happen that wasn't going to happen anyway". The course is being delivered

	primarily to doctoral and early career researchers as part of a wider commitment to promote inclusive leadership at the University of Manchester, UK
8:00	**Finish Day Two**

Day Three- Wednesday 25 May - Faculty Day

Time	Session
9:30-9:35	**Welcome and Acknowledgement of Country-** Aspro Jason White, Dean of Graduate Research

9:35-10:35	**Keynote Speaker:** Prof Cecile Badenhorst *Where the writing begins: Conceptualizing research* Research conceptualization is often not viewed as a central part of the writing process and yet, without a coherent picture of a research project, countless students find themselves stuck in their writing. Many students and supervisors still hold a product-oriented view of writing where writing is the final stage of a research process. In this presentation, I advocate for research conceptualization as part of the writing process and discuss practical techniques to navigate the complex task of research problem formulation.

10.35-10.45	**Morning Tea break** 15 minutes

10.45-12:00	*Insights for HDR Students* **Seminar with Sub Deans (Graduate Studies)-** with Aspro Sandra Savocchia, Aspro Ramudu Bhanugopan and Aspro Sam Bowker In this seminar session, the Sub Deans (Graduate Studies) will discuss their own perspectives on navigating the PhD process. Each faculty will be represented by a 15-minute presentation, addressing students with insights from across all schools and their diverse research. They will discuss behind-the-scenes insights into PhD planning, success stories, overcoming obstacles, and other challenges facing HDR in Australia.

12:00-12:45	**Lunch Break - 45 minutes** *Lunchtime Research Rave* hosted by Post-Graduate Student Association All HDR and other researchers are invited to join this informal chat room session where you can meet our committee and chat with others in your faculty. BYO lunch

12:45-1:45	*Insights for Supervisors* **A round table for Supervisors with Sub Deans (Graduate Studies)-** with Aspro Sandra Savocchia, Aspro Ramudu Bhanugopan and Aspro Sam Bowker

In this roundtable discussion, the Sub Deans will review current issues facing postgraduate research across the Australian tertiary sector. They will discuss how new and experienced research supervisors are navigating the best outcomes for their HDR students, reflecting on examples from Charles Sturt University and beyond.

1:45-2:00	**Tea break 15 minutes**

2:00-2:30   **School Research Seminars: Strategies for Sustainable Success**
Moderated by Sam Bowker (SDGS, FOAE)

In this workshop, Sam Bowker (SDGS FOAE) will demonstrate effective solutions to scheduling, marketing, recording and amplifying the diverse and innovative research-in-progress within our schools. Based on his coordination of weekly school research seminars in 2019 through 2021 for the former SCCI and FOAE, this workshop will showcase inclusive ideas that have been successful for all involved

2:35-3:35   **Plenary Session- Discussion Panel** – Publishing**:** is there more to it than 'publish or perish'?

In this plenary session panellists will share their knowledge and experiences of all things to do with publishing: including tips for finding the right publications, common writing mistakes to avoid, co-authoring, and citations.

Panellists:
Belinda Cash (Moderator)
Dominic O'Sullivan
Ian Skinner
Mark Filmer (Research Editor)
Leigh Schmidtke
Tabitha Merrell (Senior Client Services Librarian)

3:40   **Finish Conference Day 3**

Day Four – Thursday 26 May

Time	Session
12.00-12.05	**Welcome and Acknowledgement of Country**

12.05-1.05   **Keynote Speaker -** Ken Mahon
Engaging Industry and Defining the Value you Bring

Increasingly the focus for research and researchers is on engagement and impact which requires much greater collaboration with external partners in Industry and Government. But often that engagement is much shorter in duration and seeking outcomes sooner than the time frame for a PhD or broader research strategies. We will discuss the how researchers can identify the value they bring to external partners, some simple approaches to creating effective commercial relationships that deliver value and support research programs, professional development and a career in academia and/or Industry.

1:05-1:15   **Changeover break-10 mins**

1:15-1.45   **e-Poster presentations**

E-Posters should be self-explanatory and should be presented as a PowerPoint slide, PDF or JPEG or as a file or hyperlink to an online host such as 'Canva'. E-Posters will be available to view on the Docfest website. Each presenter will have an opportunity to speak their poster for 2 minutes and respond to any questions from the audience.

Judges: Jason White (Dean of Graduate Studies)
        Simon Wakeling

1:15   Welcome and Introduction

1:17   **Diane Cass**
Experiences of illness within families

Understanding the needs of families where two or more members have been diagnosed with a life-limiting/chronic illness is key to creating resources, developing support provisions and constructing appropriate education for practitioners. The objective of this research has been to establish what literature already exists in this area. A scoping review found extremely limited resources providing support, information, and services specifically for families where two or more members are facing life-limiting and/or chronic illness. The review, albeit limited, found that outcomes can include the previous support structures within the family becoming compromised, increased mental illness, increased financial burden with reduced medical outcomes, and the importance of community supports. The implications of this research include a better understanding of the specific supports required by such families, development of tailored resources to support families at all stages of care and improved government supports that focus more directly toward the fundamental requirements.

1:22 **Andrej Dimcevski**
Professional Mentoring of Mature Aged Graduate Students: Strategies and Challenges in a Covid19 Landscape

This e-poster is based on research on the complex world of one-on-one mentoring using blended approaches. It compiles the findings of the research and presents these fundings including the challenges and influencing factors for mentoring, summarising them into an easily accessible format. This type of presentation is important due to the increasing time pressures on researchers and the changing mentoring landscapes caused by the Covid-19 pandemic. The poster shows three participants which are: Australian Computer Society, mentor and mentee. The approaches employed are behavioural, using single-subject research and posing four clear questions which are shown near the top. The results are shown in the main reading area of the poster and key items summarised in the challenges to consider and influencing factors. Research in the area is still new whilst this mentorship is continuing. The gathered research can be used to assist the scientific community during mentoring through understanding behaviours and best approaches.

1:27 **Jennifer Biney**
A look at Bring Your Own Device (BYOD) deployment frameworks

In the era of 'networked workers' where employees of most organizations use on-demand mobile devices to find, store and share information which has resulted in an increase distributed but, disconnected repositories of individual data. Bring Your Own Device (BYOD) has become a powerful enabling tool which continuously contributes to this fact. The Ghanaian Internet Service Providers (ISPs) industry is mostly privately owned resort to the use of BYOD in their quest of reducing maintenance and operational cost. However, the adoption of BYOD is associated with significant security risks regardless of all the benefits it brings to the table. This research critically analyses some BYOD deployment frameworks and formulate a BYOD deployment policy that could be adopted by ISPs in Ghana to fully exploits the benefits of BYOD and safeguard their sensitive corporate data.

1:32 **Rohina Alim**
Anticancer efficacy of redox-active metal complexes with expanded coordination sites.

Cancer is currently the second leading cause of deaths globally. In the year 2020, an estimated 19.3 million new cancer cases with 10.0 million deaths surfaced (Sung et al., 2020). Cancer is expected to increase to approximately 30.2 million by the year 2040. Greater understanding of the characteristics of cancer has allowed researchers to design drugs that can effectively target cancer cells through metal chelation and reactive oxygen species (ROS) generation, triggering apoptosis (controlled cell death). The discovery of a metal chelator molecule called thiosemicarbazide (structure 1) have attracted attention for cancer drug development. This thiosemicarbazide moiety (TSC) within a drug is very versatile due to its ionophoric and metal chelating abilities that aid in cell apoptosis via the generation of reactive oxygen species (ROS) (Serda et al., 2014). We aim to demonstrate how thiosemicarbazide is converted to a pyrimidinylHadrazone substructure within the drug and study its efficacy within cancerous cells.

1:37 **Wendy De Luca**
Better together: CSU's Grounded Theory Special Interest Group

Research can be a lonely business at times! The road to developing methodological expertise is always better (and more fun) when you have others who share your journey. CSU's Grounded Theory Special Interest Group is an informal community of researchers who share their work and ideas around the qualitative methodology of Grounded Theory.

1:42   **Madeleine Ray**
Parasites of Australian native ducks and how they influence measures of stress

Birds play a significant role in the spread of diseases, as they can fly and migrate over great distances in short periods of time. Waterbirds are of particular interest to parasitologists, as it has been suggested that they are exposed to a greater diversity of parasites as they use both aquatic and terrestrial environments. Moreover, waterbirds aggregate in large numbers in wetlands, which further accelerates intra- and inter-specific transmission of parasites. In Australia, the knowledge of parasite species infecting wild waterbird populations is lacking with the last major piece of work being published over forty years ago. Furthermore, there have been only a few studies that have examined how infection with haemosporidian parasites influences haematological indices of stress in birds. By conducting necropsies, helminth parasites can be identified and illustrated. While sampling independent measures of stress can be used to determine whether parasite infection affects stress indicators.

1:47   Summary and thank-you

1.50-2:00   **Changeover break- 10 mins**

2:00-4:00   **3 Minute Thesis Heats - Heat 2**
Judges:
Sam Bowker
Jennifer Munday
David Cameron

2:10   **Sadia Sabrin Nodi**
School of Computing, Mathematics and Engineering
Data Mining Techniques for Detecting Soil Properties from Mobile Captured Images

2:18   **Nicholas McFayden**
School of Psychology
Living in a dangerous world: How early life experiences shape attentional biases towards negative stimuli

2:26   **Muhammad Rafiqul Islam**
School of Computing, Mathematics and Engineering
Video analytics in low visibility situations

2:34   **Sarah Smorhun**
Australian Graduate School of Policing and Security
Returning to crowded places

2:42   **Borkwei Nignpense**
School of Dentistry and Medical Science
Antioxidants in Grains and Guts

2:50	**Ershadul Haque**
	School of Computing, Mathematics and Engineering
	Image Compression using Quantum Computing

2:58	**Jessica Houston**
	School of Biomedical Sciences
	Youth access to mental health services in regional NSW

3:06	**Jaymie Loy**
	School of Agricultural, Environmental and Veterinary Sciences
	Just how safe is playing it safe with hormones?

3:30	**Judges Deliberations and Feedback**

3:35	**Announce Finalists**

3:40 - 4:10	**Changeover Break- 30 minutes**

4.10-5:50	**Themed Breakout Session 3**
	First Nations Research
	Moderator: Dr Holly Randell-Moon

4:10	Welcome and Introduction

4:15	**Linda Deravin and Jess Biles**
	A mentoring program to support Cultural Safety for Nurses and Midwives to stay in the health workforce

This research project examined the effectiveness of a mentoring program aimed at supporting First Nations nurses and midwives in a regional area. Participants were either mentees or mentors that were drawn from those who had completed a 12-month mentoring program. Using an hermeneutic phenomenological philosophical framework, interviews were conducted with participants using First Nations people's methods of yarning, and then an analysis of those yarns was conducted by the research team. Five themes that emerged from the data were cultural safety, motivations, relationships, learning, and support. The experiences of the participants indicated that mentoring provides both clinical and cultural support and a safe space for First Nations nurses and midwives. The research project also identified that First Nations led projects nurture organisational connections and feelings of cultural respect amongst First Nations staff beyond program participation.

4:31	**Jessica Russ-Smith**
	Wiradyuri yinaagalang yanhambilnha bulabul: Wiradyuri women walking together. Embodying sovereignty and sacred relationships within Indigenous research

Relationships are core to Indigenous and Wiradyuri research. Myself and my primary supervisor are both Wiradyuri yinaagalang (women). This relationship has been core to my PhD journey and ever transforming learning as a researcher. Wiradyuri ways of knowing, being and doing teach us that 'relationships are the foundation of everything ' (Grant Snr and Rudder 2014, p. 5) and that everything exists within relationships. This way of being has guided my PhD research and is a way through which we embody our Wiradyuri yinaa sovereignty. The sharing of knowledge and reflection within the sacred relationship between Wiradyuri yinaagalang resists oppression of Indigenous women

within the academy. Wiradyuri understandings of relationships provide transformative insight into how research can challenge dominant Western epistemologies and knowledge hierarchies to celebrate, honour, and respect Indigenous ways of knowing. Through these relationships we embody our sovereignty: hear our sovereignty, it will not be silenced.

4:47	**Linda Deravin**	

Cultural Safety for First Nations people in aged care an integrative review

The gap in culturally safe care for First Nations people has been identified by the 2019 Royal Commission into Aged Care services. The findings from this review highlight the need for aged care service providers to consider ways to address this gap in service and care provision. Major themes and concepts significant to the experience of First Nations people and requiring further investigation are; barriers to communication, racism and discrimination, impacts on health outcomes, healthcare workforce education needs, and the importance of cultural connections to Country and kin. These themes influence the perception of First Nations people feeling culturally safe when engaging with aged care services. The direct involvement of First Nations people is paramount and includes recruiting more First Nations people into the aged care workforce, involving more First Nations family and community members in the development of programs for aged care and retaining a consistent workforce overall.

5:03	Wrap-up and thank you- Moderator
5:15	**Finish Conference Day 4**

Day Five – Friday 27 May

Time	Session
12.00-12.05	**Welcome and Acknowledgement of Country**
12.05-1.05	**Keynote Speaker** - Dr Miri (Margaret) Raven *Indigenous Protocols: understanding what can and can't be done* There are unspoken and unwritten rules for working with Indigenous peoples and our knowledge. International law, through the Nagoya Protocol to the Convention on Biodiversity, calls on Parties to 'take into consideration indigenous and local communities' customary laws, community protocols and procedures, as applicable, with respect to traditional knowledge associated with genetic resources' and to support the development of these protocols. This keynote will present ideas on what exactly are protocols, how can we understand them, how are they enacted by various players, and how can they support biodiversity conservation.
1:05-1.15	**Changeover break- 10 minutes**

1:15-4.15	**Publication Workshop**
	Getting published in peer-reviewed journals

Increasingly, Higher Degree by Research students are expected to publish peer-reviewed journal articles arising from their masters or doctoral research. Publishing in peer-reviewed journals is important because evaluation by professionals verifies that the article meets high scholarly standards and enables you to be part of a scholarly community. It's the means for establishing and maintaining an academic reputation—and winning promotion and grants. This 3-hour workshop will cover how the peer-review process works and introduce you to strategies for:

- using an abstract as a planning tool for writing the article
- targeting the journal and persuading the editor
- getting the writing done
- reviewing and revising your text.

4:15-4:30	**Conference Closing Address and Acknowledgements**
	Prof. Mark Evans DVC-R