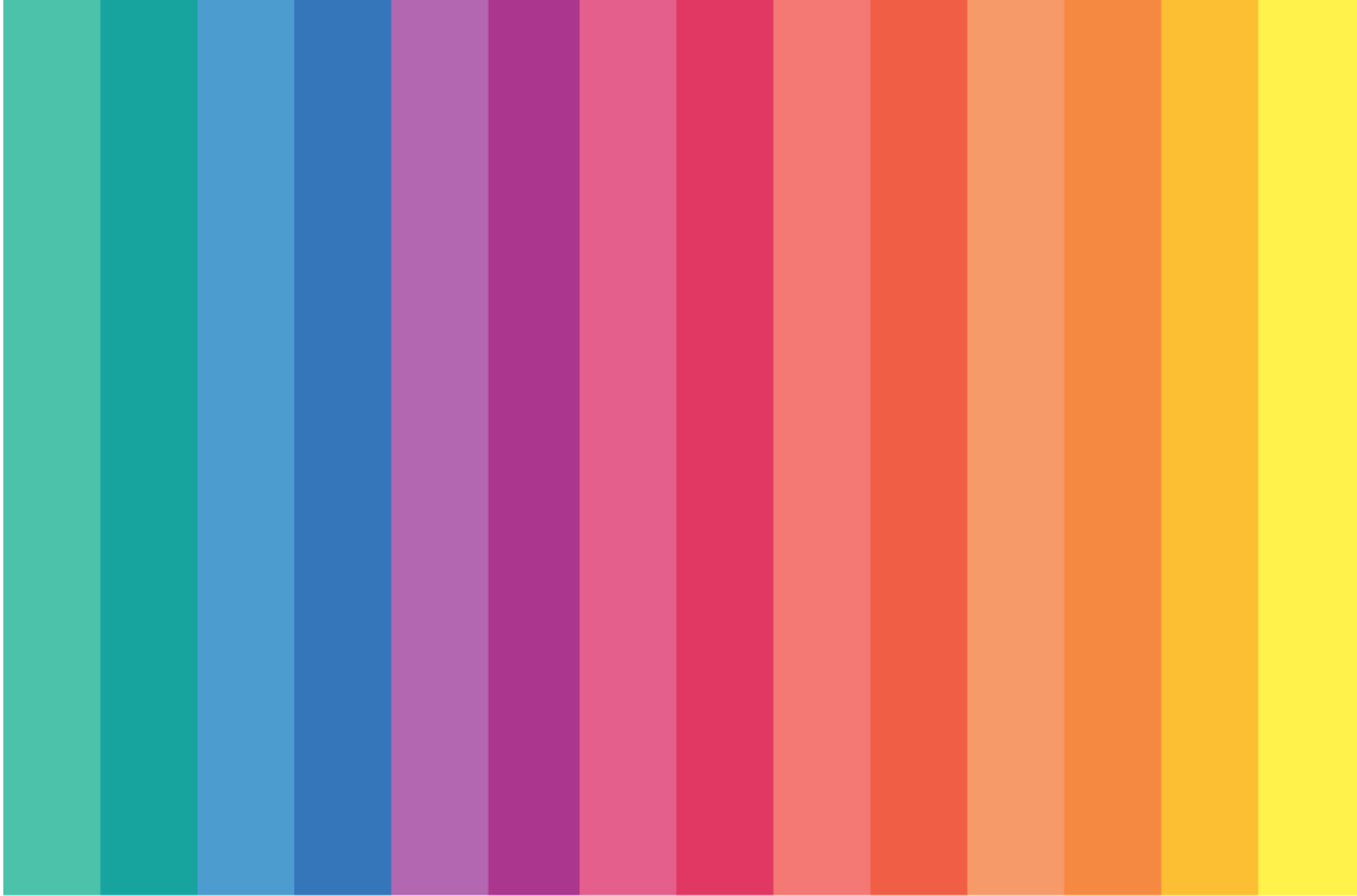




ABSTRACT BOOK



THURSDAY

1 DECEMBER 2022

ABSTRACTS

Measuring university policy influence on research

Mr Rintaro Ohno¹

¹Tohoku University, Sendai, Japan

Biography:

Rintaro Ohno has studied Physics and Mathematics at Würzburg University in Germany, received his Ph.D. in Information Sciences at Tohoku University in Japan, and is currently Senior Assistant Professor at the Strategic Planning Office at Tohoku University. Although he specializes in Complex Analysis and Geometric Function Theory and taught mathematics for first and second semester students, he also gave English and German lectures for freshman classes and provides a wide, interdisciplinary perspective on institutional research, strategic planning and related projects within the university.

Institutional Research is often tasked to provide evidence of the “success” of a policy implemented by the university’s decision makers. This may be considered an easy, straightforward assignment if the goals were clear and performance indicators are well defined. However, some cases are not as uncomplicated as one might wish them to be.

This presentation will show concrete ways how to assess the influence of a - seemingly unrelated - policy on the university’s research performance, give examples for possible indicators and talk about traps and illusions to be aware of.

Qualitative Data Analysis - Part I

Dr Jason Mazanov², Dr Bo Liu², [Dr Lizzie Li](#)¹, [Dr Mark Fischle](#)¹

¹The University Of Queensland, St Lucia, Australia, ²The Australian National University, Canberra , Australia

Biography:

Lizzie has been the Senior Manager, Student Surveys and Evaluation at the University of Queensland since 2021. Prior to this, Lizzie held the position of Senior Planning Manager at the University of Adelaide (2019–2021), and Evaluation Coordinator & Analyst at the University of Auckland (2016–2019). Lizzie held several other roles after completing her doctoral degree, including at AUT University, Griffith University, and again at the University of Auckland. In addition to institutional research, Lizzie’s career has also covered research management and program development positions within the higher education sector.

Lizzie has been actively involved in AAIR’s events and activities. She was appointed as AAIR’s Newsletter Editor in January 2019, and has been an active contributor to the AAIR Executive Committee throughout that time.

Dr Mark Fischle is a member of the Evaluations Team in the Institute for Teaching and Learning Innovation at the University of Queensland.

Fischle works to extract insights from students’ free response comments on teaching evaluations, using Natural Language Processing techniques. He is particularly interested in what we can learn from student comments about technology in the classroom.

He has previously worked for the Queensland Government and the CSIRO.

Universities run surveys, many surveys. Most of the time, the attention of survey output is on the statistical analyses of quantitative data, their description, trend and pattern, and with the inevitable ad hoc requests for impossible internal or external benchmarking. Analysis of qualitative data is characteristically superficial or limited to aspirational observations of its value. A key barrier is the resourcing required to deliver insights arising from qualitative data. A typical example is when the Universities are conducting a language scan process to identify and flag offensive/malicious words and phrases.

Undoubtedly, there are some genetic methodological challenges of qualitative data in survey design that we must address and acknowledge. Through 2022, UQ and ANU have been sharing insights around different approaches to understanding qualitative data at scale. The joint presentation identifies the commonality in understanding qualitative data at scale, and also what is context specific, using the course and teaching evaluations collected by both institutions. ANU has been pursuing a three-phase project to work out a way to automate the analysis and reporting of student comments to support business intelligence. UQ has been exploring how SECaT comments would enhance teaching and learning activities including identifying students’ learning preferences, their views on digital learning uplift (DLU), online exams and other initiatives. UQ’s presentation will focus on students’ feedback on teaching apps.

With some showcase of both universities, we aim to develop a broader conversation on how universities can use qualitative data in supporting mastery of contemporary and forward-thinking educational practices, and support and enhance evidence-based decision-making collectively and collaboratively.

What's your (data) point?

Ms Alice Goeury¹, Ms Ilse Hogendorf¹, Mrs Rowena Malig¹

¹Charles Darwin University, Brinkin, Australia

Biography:

Rowena has over 20 years' work experience in the IT industry performing various roles from analysis to production implementation across Banking, Home Health, or the Higher Education sector. She was born and raised in the Philippines, moved to Sydney in 2020, then to Darwin in 2016.

Alice joined the Planning and Performance department at CDU in January 2022, bringing 6 years of Market Research experience in an agency setting. She has thoroughly been enjoying applying her market research skills to the education world, despite the tons of new acronyms.

For over 12 years Ilse had a career in the remote tourism industry. In 2018 she did a '180' and went from creating once-in-a-lifetime experiences for guests; in hotels and on guided tours, to working with data in an office job at CDU. This change taught her that everything is possible as long as people are open to learning new skills.

One of the challenges the data and planning teams across the university sector faces is to engage users so they use and understand the data, empowering them to make data driven decisions.

We also need to convey that we have a shared responsibility for the quality and integrity of the data captured throughout the student journey. Therefore, we jumped on the opportunity to engage on this topic with the wider CDU community during our recent professional staff conference.

We would like to share with the AAIR conference how we engaged with professional staff and conveyed complex messages such as data integrity, data touch points throughout the student journey, and how the planning and performance team is enriching the data to generate insights.

Ultimately, our point is the quality of data is the sum of efforts of all staff and systems at CDU. We believe everyone has a role to play when it comes to making data driven decisions possible.

What do students think it is worth saying in their end-of-unit surveys in 2021/22?

Ms Christie Woodhouse¹

¹Australian National University, , Australia

Biography:

Christie Woodhouse is undertaking her Masters of Political Science (Advanced) at Australian National University whilst working full-time in the ANU Planning & Service Performance Division's Institutional Research team as a cadet.

This year, the ANU Institutional Research team developed a bespoke Student Experience of Teaching and Learning (SELT) code book, based on a sample from our 2021/22 dataset of student comments to end-of-unit surveys. Over an intensive period of one-month eleven staff manually coded thousands of student comments from across the university in an iterative, grounded approach, to understand what students were telling us. Our process resulted in a new code book with 28 substantive themes. We'll walk you through how we did this, talk through our learnings, and share our thinking about the upshots of this code book. Join us for a snapshot of what students were saying in 2021/22 about their learning experiences, as we share our take on why the development of a bespoke code book can help resolve the trade-off tensions between quality and timeliness for analysis of qualitative data in Institutional Research.

An Analysis of ‘Ghost Student’ Failure Beyond the First-Year: Exploring Course, Unit and Year Level Factors

Dr Bret Stephenson¹, Dr Qing Huang¹

¹La Trobe University, Melbourne, Australia

Biography:

Dr. Bret Stephenson holds a PhD from The University of Edinburgh and is currently Senior Research Fellow within La Trobe University’s Data and Analytics unit. As an experienced university leader and strategic innovator, his research and professional practice focus on four related areas: 1) student success, retention, and satisfaction, 2) student equity, 3) teaching and learning quality, and 4) the responsible and innovative use of advanced data analytics (AI/ML) throughout the university. Bret has instigated and led numerous successful institution-wide strategic projects in relation to each of these four areas of focus. He is also a highly effective university educator with over 20 years of experience in innovative teaching.

Bret’s contributions to higher education have been recognised through numerous awards including a national OLT Citation for Outstanding Contributions to Student Learning, a student-elected “outstanding professor award”, and two Vice-chancellor’s Awards for institutional innovation and contributions to student equity.

Studies of university student failure are surprisingly uncommon in the Australian higher education research literature. These investigations are also made difficult by the extreme diversity in grading schemes and recordkeeping practices that are maintained in universities across the sector. As a result, there has been surprisingly little attention paid to the significant, if not critical, sub-types of student failure that occupy the continuum of unit marks falling between 49 and zero.

Of these overlooked sub-types are the ‘ghost’ or ‘zombie’ failures – what we have previously termed Non-Participating Enrolments (NPE) – that Australian university teaching staff are often familiar with. These are students who remain enrolled in one or more of their subjects/units beyond the census date(s) yet who then neglect to attempt any of the assigned assessment tasks within the given subject.

‘Ghosting’ behaviours guarantee that the student will incur a numeric mark of zero, accrue more time spent in university, and further guarantee an increased student debt liability. Moreover, with the recent introduction of the ‘50% pass rule’, as part of the Jobs-Ready Graduates Bill (2020), these students will be further risking their eligibility for a government supported (CSP) placement.

While our earlier NCSEHE-funded study focused on student demographic characteristics, but particularly equity group membership, in this study we utilise a similar seven-year institutional dataset to investigate the relationship between NPE/‘ghost’ outcomes and course, unit, and year-level factors. In this session we will present new and extended research findings that will include NPE rates and outcomes for continuing undergraduates and postgraduates by coursework. We further present results of regression modelling analysis aimed at describing how NPE results relate to institutional and enrolment factors such as: broad field of education (BFOE), course and subject attendance type/mode (e.g. online, on-campus, blended), and subject year level.

Empowering users with data literacy

Ms Seemab Khalid¹, Ms Winnie Yu¹

¹University Of Canberra, Bruce, Australia

Biography:

Seemab Khalid is the University of Canberra's survey manager. Seemab has worked in higher education as an academic and professional in several analytic and project management-based roles. Focusing on streamlining the decision-making process through automation and visualization of the Survey Space.

Winnie Yu is the University of Canberra's Business and Analytics Coordinator developing university's Power BI and SAP BI data analytics solutions. Winnie is an integral part of the analytics team leading self-serve solutions across UC and is exploring data from admissions, surveys, external data sources providing insights for strategic decision making.

The QILT suite of surveys remains at heart of student experience for higher education. While the analysis from these surveys is useful to understand the student journey and its pain points, it is hard to report the data within the institution to a wide and diverse audience, limiting its usefulness and insights. UC has recently embarked on a digital journey to develop dashboards using QILT Surveys Data that tell stories and provide insights. This project fed into The Data Literacy and Confidence program across the University through Education sessions on available data products. This presentation will encompass how a technology transformation took place from spreadsheet reporting and analysis to self-serving Power BI Dashboards.

This presentation will outline the business case for boosting the resources in BI as a user centric solution and how enhancements in insights and data story telling were made.

Removing barriers and transforming access to tertiary education: The Schools Recommendation Program in Tasmania

Mr Todd Ellis¹, Stewart Craig¹, Emily Rudling¹, Natalie Brown¹

¹University Of Tasmania, Sandy Bay, AUSTRALIA

Biography:

Todd M. Ellis is a PhD student and data analyst with the University of Tasmania. They originally come from the United States, where they studied biogeography and have worked as a spatial analyst and researcher for organisations like the U.S. Forest Service and Apple, Inc. At the University of Tasmania, their academic research focuses on climate change and fire ecology; within their role as an analyst, however, they explore and analyse student data for the University. This role includes assisting in projects like the Tasmanian Analytics Project, which seeks to dynamically predict the future Tasmanian student market, as well as the Schools Recommendation Program in partnership with the Peter Underwood Centre, which hopes to transform university access and provide a more equitable alternative to the ATAR.

Participation in university study has historically been lower in regional and low socio-economic communities, where both proximity to campus and financial challenges are identified as key limiting factors. For year 12 leavers, the reliance on the Australian Tertiary Admission Rank (ATAR) – a system linked to socio-economic status and university proximity – also functions as a potential barrier. This reliance likely entrenches issues of access and equity, particularly as the ATAR is limited in predicting student success.

The global disruption brought on by COVID-19 has further increased the socio-economic pressure on students. It was within this context that the University of Tasmania introduced the Schools Recommendation Program (SRP) to relieve stress on year 12 school leavers interested in higher education. Drawn from the University's research on attributes associated with student success, the SRP uses teacher-led assessments across seven identified criteria (e.g., time management, critical thinking, numeracy) to inform students' preparedness for university. The SRP assessment and outcome are delivered prior to year 12 results, providing students with an alternative pathway to university well ahead of the completion of year 12 and release of the ATAR.

To assess the viability of the SRP as a predictor for student success, we analysed GPA scores and unit success rates for enrolling SRP students. We found that the SRP is strongly and positively associated with first year success. This has also enabled us to identify the key SRP criteria most consequential for course-level success. Knowledge of these metrics is essential to better inform applicant preparedness for individual courses and subject matter, as well as to guide our admissions process. The use of a holistic assessment of preparedness, as judged by the teachers closest to students and balanced by our knowledge of what attributes are important to success, should ultimately transform access to tertiary education.

A new era for data and analytics in higher education

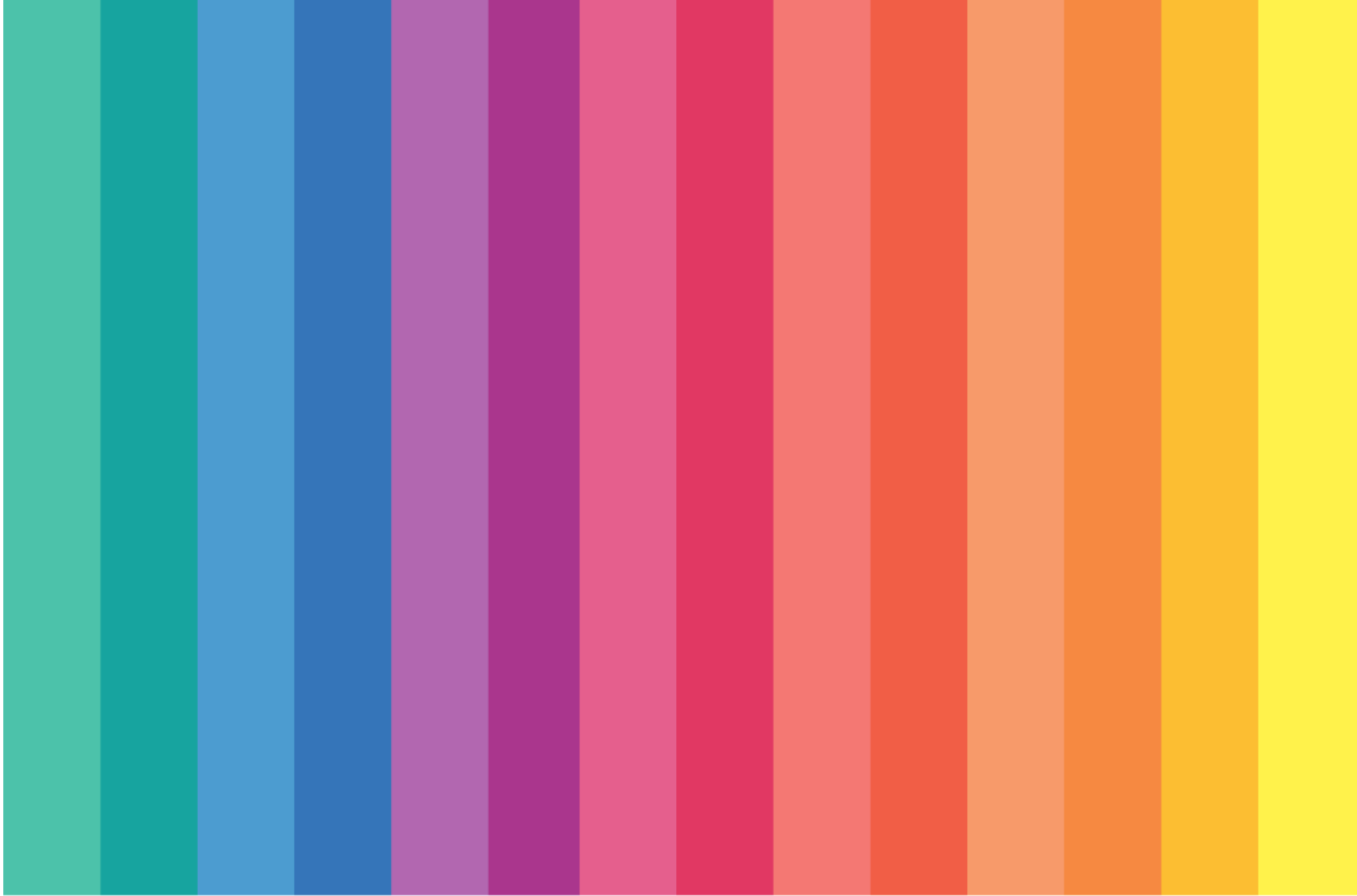
Dr Omer Yezdani¹

¹University of the Sunshine Coast, Sippy Downs, Australia

Biography:

Dr Omer Yezdani has led strategy, data & analytics, technology and risk in public, private and social enterprise for over 20 years, and advises on business transformation, strategy, data analytics and risk. After completing a degree in Marketing, Omer commenced his career with a major ASX-listed firm, working on next generation technologies. Developing an interest in public policy, he went on to work in the Federal Government for over a decade leading national policy in education, VET and Indigenous affairs. Completing a Master of Business Administration (MBA), Omer engaged in several high-profile initiatives, as a Senior Advisor and State Director in the Department of the Prime Minister and Cabinet, and Department of Education, before leading business transformation at one of Australia's most prominent online universities. Following two Excellence Awards, and Latin American Scholarship Award, Omer completed his doctoral research in complex systems at Griffith University.

Data and information are among our most valuable strategic assets. The digital revolution and emergence of new technologies has brought with it an explosion in the scale and velocity of how data is created, managed, and consumed across the world and in Australian higher education. Each interaction we have with the digital world leaves a footprint, that has now become one of our most important assets and biggest security concern. While it's broadly recognised across higher education that data is an indispensable asset which has the potential to bring about transformative change, our industry lacks a common framework to develop and deliver enterprise level analytics solutions. The cohesion between privacy, cybersecurity, data ops, information architecture, data governance and information management, BI, and the role of the institutional researcher are fragmented parts that co-exist in a large, complex, and often distributed organisational model. While industrial and technological research portrays the new architecture of modern analytics as a unified whole, this is rarely if ever the case in Australian and international higher education. So, what is our unique and bespoke approach to this dynamic terrain. Has anyone really nailed it? This presentation and Q&A session will present new insights on the topic resulting from a series of interviews undertaken with leaders in the field, including Vice-Chancellors, CDOs, CIOs, CAUDIT, ANUP and academics on our current state and future ambition for what is one of the most important questions in data and analytics in our generation of higher education. This aims to assist institutional researchers, data and analytics practitioners and BI experts to understand, develop and promote their role and how as an industry we can unlock the potential of our data and information assets.



FRIDAY

2 DECEMBER 2022

ABSTRACTS

UNSW Rules for Power BI Best Practices and Security

Mr Gopinath Thangachandran¹, Mr Markos Keir²

¹UNSW, Randwick, Australia, ²Altis Consulting, Sydney, Australia

Biography:

Gopinath Thangachandran has over 15 years of experience in IT Service Design & Service Delivery. As a Senior Business Analyst in UNSW Planning and Performance, provides faculties, schools, and divisions across the institution with reporting solutions to meet the growing needs of data & insights.

Markos Keir has been working in Business Intelligence and Data Visualisation for over 20 years. He is passionate about using his experience and knowledge to deliver data driven business outcomes.

When Power BI was released in 2014 it was a relatively simple tool with a basic set of features. With every release since then Microsoft has added new features to make a richer reporting environment, but with these new features comes new complexity. In this talk, you'll learn how UNSW has implemented Power BI best practices around reporting and security.

The Challenges of External Referencing of Student Performance Data

[Dr Rebecca Green](#)¹, Ms Carole Dawes¹

¹CQUniversity, Australia

Biography:

Dr Bekki Green is the Manager, Learning Analytics at CQUniversity. With a PhD in Applied Psychology, Bekki has worked in research evaluation, online education, and has a particular focus on learning and teaching research. Currently, she works across educational quality assurance and compliance, learning analytics, and student evaluations and surveys. During 2022, Bekki worked closely with Carole Dawes, Senior Policy and Project Officer at CQUniversity, to further benchmarking and external referencing practices. Bekki is passionate about collaborating and sharing best practices within the sector, and designing solutions that meet our quality assurance needs.

External referencing is defined by TEQSA as a process through which a higher education provider compares an aspect of its operations with an external comparator or group of comparators. While external referencing of assessments has become standard for most providers, there remains challenges in external referencing of student performance data. These challenges relate to the granularity of available comparison data, the commercial in confidence nature of student performance data, and the difficulty in reaching agreements regarding how to segment data into different but comparable enrolment groups and student cohorts. This presentation will speak to these challenges, and some of the current practices and initiatives for external referencing. The session will then move to a roundtable discussion on appropriate standardised data comparisons for sector wide external referencing of student performance data. Attendees are encouraged to refer to hardcopy external referencing templates from their institution to allow benchmarking of approaches and foster collaboration and partnerships.

The Use of a Viability Index as a Better Measure of Departmental and Program Strength

Dr. Andrew Luna¹

¹*Austin Peay State University, Clarksville, United States*

Biography:

Dr. Andrew Luna has been in higher education for 36 years with 25 of those years within institutional research. He has been a member of AIR and SAIR since 1995, and has served as vice president and president for both ALAIR and GAIRPAQ.

While affiliated with SAIR, Dr. Luna served on the governing board three times, has won three Best Paper awards, and won the SAIR Distinguished Service Award. Research is at the heart of Luna's agenda and he wants to make sure that research is always maintained in IR. Throughout his career he has made over 40 presentations at international, national, regional and state-wide conferences, published almost 30 peer reviewed articles, published three book chapters, and has edited one book.

Dr. Luna earned a Ph.D. and Master's degrees in higher education administration at the University of Alabama, and Master's and Baccalaureate degrees in journalism at The University of Alabama.

Although many institutions and government agencies count degrees as the sole measure of determining departmental or program viability, this method fails to consider other factors such as how many students who are within programs are present to replace students who graduated from those programs or how many credit hours were generated in the area. This article highlights an easy-to-create, ratio-driven metric that can help an academic department or program to determine its overall strength.

Towards an Inclusive Analytics Throughout the University: Protecting Equity Interests Through Data Ethics, Governance and Algorithmic Auditing

Dr Bret Stephenson¹

¹La Trobe University, Yallambie, Australia

Biography:

Dr Bret Stephenson holds a PhD from The University of Edinburgh and is currently Senior Research Fellow within La Trobe University's Data and Analytics unit. As an experienced university leader and strategic innovator, his research and professional practice focus on four related areas: 1) student success, retention, and satisfaction, 2) student equity, 3) teaching and learning quality, and 4) the responsible and innovative use of advanced data analytics (AI/ML) throughout the university. Bret has instigated and led numerous successful institution-wide strategic projects in relation to each of these four areas of focus. He is also a committed and highly effective university educator with over 20 years of experience in innovative teaching.

Bret's contributions to higher education have been recognised through numerous awards including a national OLT Citation for Outstanding Contributions to Student Learning, a student-elected "outstanding professor award", and two Vice-chancellor's Awards for institutional innovation and contributions to student equity.

Data-driven machine learning (ML) and Artificial Intelligence (AI) tools and services now quietly power countless automated decision making, and predictive processes, across university business areas and throughout the student life cycle. While ML/AI applications can be responsibly deployed to advance student equity interests, if adopted uncritically, they can also amplify social inequalities and historical injustice, often by stealth. Given the rapid proliferation of these technologies and processes throughout the University it is increasingly important that we have principles, processes, and robust digital governance processes in place to protect student equity interests and goals.

While ML/AI applications can potentially work in the student's own learning interests, they also present a demonstrable and, perhaps, insidious threat to the project of student equity. Moreover, it is increasingly difficult for non-specialist university leaders and decision-makers to anticipate how the ML/AI applications their institutions adopt may be working to undermine their own strongly held commitments to student equity and diversity. The proprietary nature of commercial ML/AI products and services can also serve to frustrate a university's attempts to audit the impact of these processes on equity students. Therefore, internal data governance and algorithmic auditing capabilities have become critical requirements in the modern university.

When deployed within the rich human contexts of universities, ensuring ML/AI 'fairness' is more than a technical challenge, it calls for the continuous negotiation and articulation of competing visions of 'equality' and 'the good.' It is therefore critical that Universities develop sound data governance and oversight processes that will protect against harms to student equity and privacy. Drawing from the fields of information justice and ethics of technology, this project seeks to provide a conceptual and interdisciplinary framework that will aid institutions and individuals in the utilization of ML/AI applications while minimizing the risk of unintended consequences.

Is the COVID-19 cloud over yet? Insights from the impact of COVID-19 on student experience in the Australian HE sector

Ms Chandrama Acharya¹

¹Macquarie University, North Ryde, Australia

Biography:

Chandrama works as Manager, Surveys at Macquarie University, managing the national surveys; QILT, ISB, NSSS. She also manages internal, ad-hoc surveys as well as the UniForum Program. Chandrama has worked in the higher education sector in Australia and overseas for the past 22 years. She has the responsibility for analysis, reporting, and advising on the student experience, graduate outcomes, and UniForum data. Her background is in marketing research, international business, statistics, and research on higher education issues, and she has published extensively in a number of international journals. Chandrama also provides expert advice to the University community regarding the policy, best practices, and methodologies for surveys and analytics. She is the key advisor on the use of surveys and the government's aggregated data for benchmarking and other business processes of the University.

The COVID-19 pandemic prompted all governments across the globe to implement large-scale health measures targeting the control and management of the health emergency. As a result, the education sector was significantly impacted. UNESCO reported that close to 1.2 billion students and youth were impacted by the pandemic, especially in the educational institutions of vulnerable and disadvantaged countries.

This paper will present insights into the impact of COVID-19 on the student experience in Australian higher education, using the 2020 and 2021 Student Experience Survey (SES) national data, in context to institutional differences and emerging stories from students' comments.

This paper will also explore whether there were any differences in student satisfaction in regional and non-regional (city) universities, and in equity groups during 2020 and 2021.

Finally, this paper will highlight the insights on what went well in the sector in 2021; improvements in student satisfaction were evident in almost all key focus and identify areas, where universities are required to work further to enhance the student experience.

Measuring Higher Degree by Research Candidate Experience: ANU and the Postgraduate Research Experience Survey

Mr Jason Mazanov¹, Ms Bo Liu, Dr Maria Borzycki, Mrs Poorni Apoutou, Ms Phoebe Carmody, Ms Christie Woodhouse

¹Australian National University, Australian National University, Australia

Biography:

Dr Jason Mazanov is the Associate Director (Performance and Institutional Research) with ANU. Following a PhD in quantitative psychology, Dr Mazanov accidentally became an internationally recognised expert in the management of performance enhancing technologies, and doping in sport specifically, while with UNSW-Canberra. After a couple of years doing organisational surveying at the Department of Defence, Dr Mazanov returned to the higher education sector to test his mettle with student experience surveying - and what a test it is! Dr Mazanov now tries to convince academics that academic research is fundamentally different to institutional research, muses over how qualitative analysis can be done at scale, and enjoys the excellent company of colleagues at ANU and AAIR.

Surveys of the ANU community through the COVID period highlighted the need to develop a stronger understanding of higher degree by research (HDR) candidates experiences. Consequently, ANU deployed the Advance HE Post Graduate Research Experience Survey (PRES) to HDR candidates in 2021. This paper outlines some of the challenges of surveying HDR candidates, including anecdotal evidence around active non-response bias. The standardised scales showed research skill development is a strength for ANU with room for improvement in connecting candidates with research communities (unsurprising given the challenges of COVID). In benchmarking terms, ANU was typical of participating universities (dominated by UK universities). A key benefit to the PRES is the number of opportunities for candidates to provide comments. Comments left by candidates were characteristically constructive, observing how induction practices could be improved and offering suggestions around how to connect candidates with available support. Overall, the outcomes of the PRES for ANU provided a sound evidence base for what was working well in 2021 and opportunities for improvement, including how to survey HDR candidates more effectively. As ANU builds the series over time, we look forward to benchmarking with other universities in our corner of the world.

Improvise, Adapt, Overcome and Survive TCSI

Mr Russell Yau¹

¹University Of Canberra, Bruce, Australia

Biography:

Russell is the Compliance Reporting Analyst & Coordinator at the University of Canberra, focusing on TCSI and working closely with other business units to improve the data collection and reporting practices at the University.

Before moving to the government reporting space, he also worked as an Insight Analyst to provide insights and customised solutions to support the University decision making process, as well as worked as a Research Data Analyst to provide support in research publications and rankings.

TCSI was one of the biggest changes in the higher education landscape in decades, and it has been demanding on all institutions, both in terms of time, resources, and the markedly increasing the volume of data that has been required in the difficult past two years. At last, judgement day has come and gone, but the tears and the battle wounds are still fresh from the complexity of the reporting requirements, system bugs, magically disappearing data, incurred staff issues, evolving timelines, and thousands of validation errors that refuse to go away. In the meantime, did it bring any good to universities?

Please fasten your seatbelt and welcome to the journey of how the University of Canberra, or the newly appointed Analyst survived his first ever Student Data Submission and Verification with less than a 1% error rate.