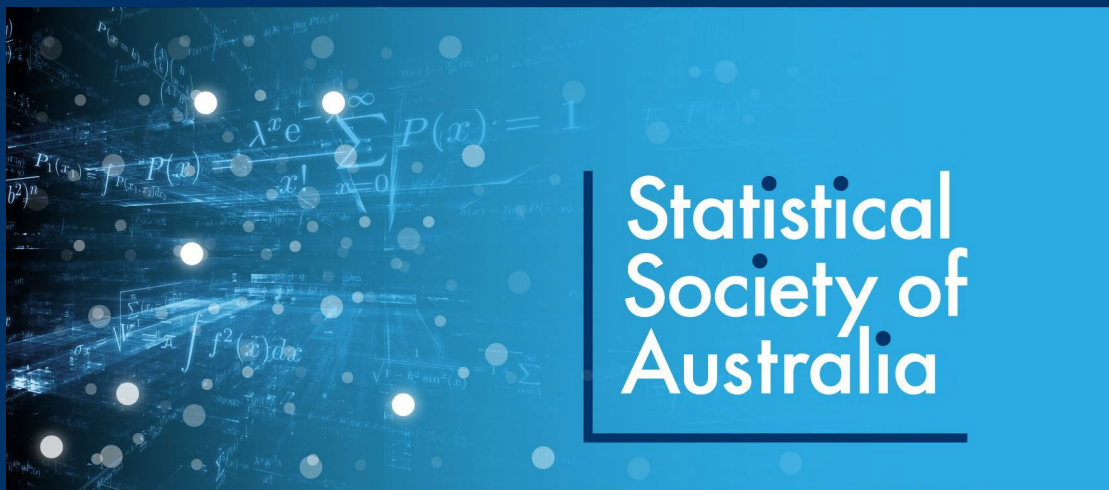


From: [Statistical Society of Australia](#)
To: [Contact us](#)
Subject: Stats Matters & Events
Date: Thursday, 20 July 2023 4:58:47 PM



STATS MATTERS & EVENTS

20 July 2023

As we reach the midpoint of 2023, it's also the halfway mark of the winter season. With only about six more weeks of chilly weather ahead, soon we'll be able to bid farewell to our winter woollies and welcome the warmer days.

For those chilly evenings when it's too cold to venture outside, why not treat yourself to a relaxing moment indoors with a delightful cup of tea and the latest SSA newsletter? Though it may be shorter than last week's edition, it's worth noting that last week's newsletter set a record for the longest one yet. So, even in its brevity, this one does have interesting content.

If you're in the mood for some sports action, the 2023 FIFA Women's World Cup starts about right now! While I'm not usually an avid sports enthusiast, soccer has a special place in my heart. The 90-minute thrill of soccer games is something I can genuinely enjoy. It was a bit disheartening last night when I went out and I asked my dinner companions about their interest in the upcoming games, and nobody seemed enthusiastic.

However, my excitement remains unwavering! I'm ready to start making the popcorn and I might even indulge in a glass of wine while I watch Australia play Ireland tonight.

So, let's make the most of the remaining winter days, curl up in the warmth of our homes, and cherish these moments with our favorite pastimes. Whether it's catching up on the SSA newsletter or cheering on our favorite teams in the Women's World Cup, there's no shortage of enjoyable activities as we approach the second half of 2023.

Go the Matildas!

[Marie-Louise Rankin](#)

Executive Officer

Read newsletter in your [browser](#)

In this newsletter:

[Missed opportunity: Universities Accord interim report fails to recommend R&D investment ramp-up](#)

[Don't shoot the messenger](#)

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Missed opportunity: Universities Accord interim report fails to recommend R&D investment ramp-up

According to a media release published by Science & Technology Australia on 19 July 2023, the [Universities Accord interim report](#) has missed a crucial opportunity to recommend an increase in Australia's research investment, putting the country at a disadvantage compared to global economic rivals. The report fails to propose a visionary up-scale of Australia's research and development (R&D) strength, hindering job creation and economic diversification. Science & Technology Australia's CEO urgently calls for bolder recommendations to prevent the loss of talent and erode future job prospects and living standards. The latest data shows that government investment in R&D has reached its lowest level as a share of the economy since 1978.

[Read the full media release here](#)

Don't shoot the messenger

Iran's President Ebrahim Raisi recently dismissed the head of Iran's Statistics Centre and the Social Security Organisation in a move that aligns with the country's hardliners' effort to remove officials who are not part of their inner circle.

As reported on the website "Iran International", Javad Hossein-Zadeh, who held the position responsible for providing economic statistics in the country, was ousted, and this action comes as his data often presented a less optimistic picture compared to the positive statements and forecasts made by the president and his close advisors. Daryush Abouhamzeh has been appointed as the interim replacement for the time being.

Sadly it looks like another case of "shooting the messenger".

[Read the full article here](#)

Social Media Unveiled: 134 Eye-Opening Statistics for 2023

In the digital age, social media has become an indispensable part of our daily lives, encompassing both personal interactions and business endeavors. With the continuous emergence of new platforms and features, it can be challenging to keep up with the ever-evolving social media landscape and the associated trends. To help you stay informed and make data-driven decisions, Annabelle Nyst of "Search Engine Journal" compiled a comprehensive list of 134 social media statistics for 2023.

Annabelle's compilation spans a wide range of social media aspects, from general global statistics to insights into specific platforms like Instagram.

In this article, you'll come across fascinating information such as the staggering number of worldwide social media users, the average time spent on these platforms daily, and the most popular social networks based on active users. Additionally, the author explores social media usage among different age groups, the impact on mental health, and the crucial role of social media in business marketing, including advertising spending projections and the growth of influencer marketing.

[Click here to dive into the data-driven world of social media statistics in](#)

Mentioned in previous newsletters:

Request for topic suggestions: R-Ladies of Melbourne to showcase R demos at ASC & OZCOTS 2023

We are delighted to announce that R-Ladies of Melbourne will be participating in the upcoming [Australian Statistical Conference & OZCOTS 2023](#), setting up R demos during the event. The organisers are seeking your assistance in identifying specific areas of interest that attendees might like to see in these demos.

By tailoring their presentations to match our delegates' needs, R-Ladies can ensure that the sessions are both relevant and valuable. Please email our Event Coordinator, [Jodi Phillips](#), to share your preferences or suggestions for particular topics. Thank you!

SSA Branches have opened applications for funding to attend ASC/OZCOTS 2023

Branches of the Statistical Society are offering funding for student and early career members of the society to attend the [Australian Statistical Conference \(ASC\) and Australian Conference on Teaching Statistics \(OZCOTS\)](#) in Wollongong, 10th - 15th December 2023. All branch funding will cover registration to the conference, with some branches covering additional travel if funds allow. For full details see each branches' announcement.

- Canberra (check your email for 'Canberra branch ASC & OZCOTS 2023 rego grant')
- NSW ([application form](#))
- Queensland ([application form](#))
- South Australia & Northern Territory ([application form](#))
- Victoria & Tasmania ([application form](#))
- Western Australia ([application form](#))

With best wishes,

ASC & OZCOTS 2023 Programming Committee

SSA Equity, Diversity and Inclusion Committee: We want you!

The SSA's Equity, Diversity and Inclusion (EDI) Committee is charged with ensuring that our Society is welcoming and accessible to all. Since its formation in 2021, we've done many things to ensure diversity of our Society, including developing guidelines to help ensure Branch and Section events are welcoming and inclusive, seeking feedback on EDI issues from our members, and providing feedback to the Australian Bureau of Statistics on the inclusion of questions on sex and gender in future censuses. You can find out more about the committee [here](#).

If you're enthusiastic about equity, driven by diversity, or interested in inclusion, then we'd like to invite you to join the EDI Committee. For more information, please get in touch with the EDI Committee chair, [Jess Kasza](#).

SSA Events

Statistical Consulting Network July Meet-Up

28 July 2023, 12:30 PM – 1:30 PM AEST, held online

Come along with your thinking cap, maybe a problem, and some lunch!

The Statistical Consulting Network invites you to their monthly meet-up, a virtual lunchtime meeting where statisticians help each other out with problems that they aren't sure how to deal with. This virtual meeting is held on Zoom at lunchtime on the last Friday of each month, 12:30-1:30 PM (AEDT). We start each meet-up with announcements, or occasionally a special topic discussion, then discuss problems that attendees have brought along with them.

We also have a Slack workspace where members of the consulting network can communicate between meetings, or post problems or relevant materials they would like to discuss during a meeting.

[Zoom link](#)

Password: 660145

[Slack Workspace link](#)

Hacky hour - SSA Vic & Tas

25 Jul 2023, 12:00 PM – 1:00 PM (AEST), held online (Zoom)

Please join us for our monthly Hacky Hour - an online brown bag session hosted by the SSA's Victorian & Tasmanian branch. This is an open forum for people from all backgrounds to discuss any coding related problem or project they have, with the SSA community. These sessions are programming language agnostic, so please come with anything you'd like to discuss! While we may not have all the answers, we will endeavour to help solve the problem together.

Upon registering you will receive the Zoom meeting details. To register click [here](#).

Canberra Branch Meeting -- ChatGPT and Large Language Models: A Computational Linguistics Perspective presented by Dr Stephen Wan, Data61, CSIRO, Sydney

26 Jul 2023, 5:00 PM – 6:00 PM (AEST), held in-person and online (Zoom)

Generative AI is a disruptive technology, presenting us with new opportunities. Tools like Large Language Models (LLMs) and the chatGPT application are taking the world by storm. In this talk, he will present a computational linguistics perspective on the recent research and engineering developments in this field and argue that understanding the linkages to historical developments in language modelling and adopting a multi-disciplinary approach to research in this area are important in developing methods to overcome some of the limitations of these new technologies. Beginning with an overview of the neural network technology underpinning LLMs, He will note the relationship of LLM advances to other work in natural language processing. Stephen will then introduce the importance of a broader multi-disciplinary approach, involving fields such as linguistics, computational linguistics, social sciences, and human factors, to name but a few. Methods and knowledge from these other disciplines methods will be useful in advancing research and applications in this area. Finally, he will conclude by presenting some research directions that we are exploring at CSIRO Data61.

After the talk there will be free pizzas and drinks provided to encourage people to stay after the presentation and socialise with other members and with members of the IEEE ACT Section and the Canberra Data Scientists Group.

To assist in catering, please let us know if you are attending in person by **5pm**

Monday 24 July by entering your details at [attendance sheet](#), or contacting me (warren.muller@csiro.au; 0407 916 868). Please regard this as a **firm commitment**, not just an intention. For withdrawals after the deadline, please remove your name from the sheet and phone or text me (0407 916 868). To register click [here](#).

SSA QLD Branch Meeting: Evidence of statistical "hacking" in clinical prediction models presented by Professor Adrian Barnett, Queensland University of Technology

2 Aug 2023, 5:00 PM – 6:30 PM, Room 348, Building 67, UQ St Lucia Campus and online

Clinical prediction models are widely used in health and medical research. The area under the receiving operating curve (AUC) is a frequently used estimate to describe the utility of a clinical prediction model. The AUC is often interpreted relative to thresholds, with “good” or “excellent” models defined at 0.7, 0.8 or 0.9. These thresholds may create targets that result in “hacking”, where researchers are spurred on to re-analyse their data until they achieve a “good” result.

We extracted AUC values from PubMed abstracts to look for evidence of hacking. The distribution of 306,888 AUC values showed clear excesses above the thresholds of 0.7, 0.8 and 0.9 and shortfalls below the thresholds. The AUCs for some models are over-inflated, which risks exposing patients to sub-optimal clinical decision-making. Greater modelling transparency is needed, including published protocols, and data and code sharing.

*This is joint work with Nicole White (QUT), Rex Parsons (QUT), and Gary Collins (Oxford).

For more info and to register please click [here](#).

SSA Vic & Tas Branch August meeting: Applications in long-term forecasting, derivatives' valuation, anomaly detection, and machine learning presnted by Dr Zili Zhu is the Director of RiskLab at CSIRO

15 Aug 2023, 6:00 PM – 7:00 PM (AEST), RMIT Building 15, Level 3, Room 10, 124 La Trobe Street Melbourne OR online via Teams

At RiskLab, our objective is to develop and implement innovative quantitative solutions and/or products for the industry. The methodologies that we rely on are in the domains of applied math, statistics and software engineering. In this

talk, we will present some examples derived from our direct engagement with industrial clients to illustrate some typical techniques and methods that we have implemented for applications in long-term forecasting (actuary), derivatives valuations (finance and agriculture), anomaly detection (fraud risk) and machine-learning (high-frequency algorithmic trading).

To register click [here](#).

SSA NSW August event: A/Prof Anastasios Pangiotelis - Forecast Reconciliation: A Review by A/Prof Anastasios Pangiotelis and Paco Tseng.

16 Aug 2023, 5:30 PM – 7:30 PM (AEST), Seminar Room 020, Law Building Annex, The University of Sydney or [online](#).

Collections of time series that are formed via aggregation are prevalent in many fields. These are commonly referred to as hierarchical time series and may be constructed cross-sectionally across different variables, temporally by aggregating a single series at different frequencies, or may even be generalised beyond aggregation as time series that respect linear constraints. When forecasting such time series, a desirable condition is for forecasts to be coherent, that is to respect the constraints. The past decades have seen substantial growth in this field with the development of reconciliation methods that not only ensure coherent forecasts but can also improve forecast accuracy. This talk will serve as a review of forecast reconciliation and an entry point for researchers and practitioners dealing with hierarchical time series. The talk will include perspectives on forecast reconciliation from machine learning, Bayesian statistics and probabilistic forecasting as well as applications in economics, energy, tourism, retail demand and demography.

For more details and to register click [here](#).

Bill Venables Award seminar

24 Aug 2023, 12:00 PM – 1:00 PM (AEST), online

SSA's Statistical Computing and Visualisation section proudly presents the Venables Award seminar.

This award is to encourage new open source software development from the Australian community with a view to support efforts to develop and share data science and statistics methodology. This year's winners are Matthew Sainsbury-Dale, Andrew Zammit-Mangion, with FRK: Fixed Rank Kriging.

Runners-up are Rex Parsons, Robin Blythe, Adrian Barnett, Susanna Cramb and Steven McPhail, with predictNMB.

To register and see more information click [here](#).

Machine Learning with Python

5 Aug 2023, 9:00 AM (AEST) – 6 Aug 2023, 12:00 PM (AEST), held online

The Statistical Society of Australia's Victorian and Tasmanian branch warmly invites you to a workshop on machine learning with Python, presented by Patrick Robotham from Magic.

This two-day workshop aims to enable data scientists to incrementally incorporate Python in their workflow. After an introduction of Python basics, the workshop focuses on developing Python models in a workflow framework that is most commonly seen in a production environment. Participants will benefit from a gentle introduction to Python on the first day before learning some powerful modelling concepts and tools on the second day.

For more information and to register click [here](#).

Sampling course

12 Oct 2023, 9:00 AM (AEDT) – 8 Dec 2023 (AEDT), held online, one hour a week

The Social Research Centre and the Statistical Society of Australia (SSA) are very proud to offer statistical training from the International Program in Survey and Data Science (IPSDS), a joint program of the University of Mannheim and the Joint Program in Survey Methodology at the University of Maryland.

The 8-week online sampling course is aimed at working professionals who are interested in expanding their data collection skills. The course will be available fully online with prerecorded videos that students are expected to watch on their own time plus weekly 1-hour live interactive sessions with the instructor, Raphael Nishimura, Director of Sampling Operations at the University of Michigan.

By the end of the course, you will...

- understand the basic ideas, concepts and principles of probability

sampling from an applied perspective

- be able to identify and appropriately apply sampling techniques to survey design problems
- be able to compute the sample size for a variety of sample designs
- understand and be able to assess the impact of the sample design on survey estimates
- be able to estimate the precision of the survey statistics using different estimation techniques

Please book before 15 August 2023 to take advantage of the Early Bird Deadline For more details and to register click [here](#)

Check out these pre-conference workshops held in Wollongong on 10 December 2023:

- [Essential Skills for Statistical Communication](#) presented by Professor Sir David Spiegelhalter, University of Cambridge and Dr Linden Ashcroft, University of Melbourne

The workshop will include a panel discussion. Presenters Prof David Spiegelhalter and Dr Linden Ashcroft will be joined by applied mathematician and science communicator [Dr Sophie Calabretto](#), and ABC journalist and 'lapsed mathematician', [Casey Briggs](#), to share their experiences.

- [Statistical Consultancy – The Essentials for Getting Started and Ongoing Success](#) Presented by Professor Julie Simpson, University of Melbourne, A/Professor Emily Karahalios, University of Melbourne and A/Professor Karen Lamb, University of Melbourne, A/Prof Sue Finch from The University of Melbourne and
- [Deep Statistics for More Rigorous and Efficient Data Science](#) presented by Professor Xiao-Li Meng, Harvard University

[Australian Statistical Conference \(ASC\) and Australian Conference on Teaching Statistics \(OZCOTS\)](#)

10th - 15th December 2023, Wollongong

Early Bird deadline is 31 July 2023!



Other events

School of Mathematics and Applied Statistics presents:

2023 Data Science and Statistics Lecture

<https://uow.info/smas-ssl>

All welcome – please register
[Click here to register](#)



UNIVERSITY
OF WOLLONGONG
AUSTRALIA



2023 Data Science and Statistics Lecturer

Antonietta Mira

Professor of Statistics and Director of the Data Science Lab,
Università della Svizzera Italiana, Lugano, Switzerland
Professor of Statistics, Insubria University, Italy

Title: Data science for public health: Risk mapping of Out of Hospital Cardiac Arrest and the optimal deployment of defibrillators

Date: Wednesday 16 August 2023

Time: 11.30am start

Venue: UOW [Building 6, Room 210](#)
Refreshments following Q & A



The School of Mathematics and Applied Statistics (SMAS) is hosting the **2023 Data Science and Statistics (DSS) Lecture**, to be given in-person by:

Antonietta Mira

Professor of Statistics and Director of the Data Science Lab, Università della Svizzera Italiana, Lugano, Switzerland

Professor of Statistics, Insubria University, Como, Italy

Her DSS Lecture is titled:

Data science for public health: Risk mapping of Out of Hospital Cardiac Arrest and the optimal deployment of defibrillators

(Further details about this and past DSS Lectures can be found at <https://uow.info/smas-ssl>)

Date: Wednesday 16 August 2023

Time: 11:30am in-person-only lecture, refreshments to follow

Venue: Building 6, Room 210, University of Wollongong

Abstract: Out of Hospital Cardiac Arrest (OHCA) is a major public-health problem that affects approximately 1:1000 people in developed countries. This lecture describes my collaborative peer-reviewed research with cardiologists in Switzerland since 2018, to map and forecast OHCA risk, and to use this to optimise Automatic External Defibrillator (AED) deployment in Canton Ticino, Switzerland. Flexible location models were found to increase overall OHCA coverage and decrease the distance to nearby AEDs, so saving lives and at the same time reducing public-health expenditure. For every minute lost in response time, the AED success rate decreases by 7-10%. Geospatial models of OHCA and AED accessibility with uncertainty quantified, were used to identify communities with the greatest gap between demand and supply for allocating AEDs, which were then used to evaluate models for precise AED-location deployment. These were further used to evaluate strategies for deployment of Lay First Responders (LFRs) in relation to the OHCA and AED locations. A Bayesian spatio-temporal model with a dynamic temporal component was used to predict future OHCA. Model-based risk maps adjusted for demographic covariates were used to explain and forecast the spatial distribution of OHCA in Canton Ticino. The lecture will conclude with new work on using neural networks in the Bayesian spatio-temporal model, which allows current and future detection of high-risk areas of OHCA with uncertainty quantified.

The lecture and refreshments that follow are open to all. For space availability and catering purposes, please [click here to register](#).

Current Vacancies in SSA's Career Centre

[Internal Revenue Agent \(Examiner\) - Direct Hire \(12 Month Register\)](#)

Multiple Locations (see description)

Internal Revenue Service

Duties WHAT ARE THE APPEALS (AP), LARGE BUSINESS ...

[Revenue Officer- DIRECT HIRE \(12 Month Register\)](#)

Multiple Locations (see description)

Internal Revenue Service

Duties WHAT IS THE DIVISION? SMALL BUSINESS ...

[Professor in Financial Mathematics or Mathematical Statistics](#)

Other

University of Leuven (KU Leuven)

The Faculty of Science at KU Leuven (Belgium) ...

[Lecturer in Mathematics and Statistics](#)

Western Australia

Murdoch University

See Murdoch University's web page for information ...

[Internal Revenue Agent \(Examiner\) - DIRECT HIRE \(12 MONTH REGISTER\)](#)

Multiple Locations (See Description)

Internal Revenue Service

WHAT ARE THE APPEALS (AP), LARGE BUSINESS AND ...

[View All Jobs](#)

If you have news from the Australian statistical community to share in Stats Matters and Events, please get in touch [with us](#)! We love getting feedback too.

[Unsubscribe](#)