



THE BULLETIN 456

THE ROYAL SOCIETY OF NEW SOUTH WALES

ABN 76 470 896 415

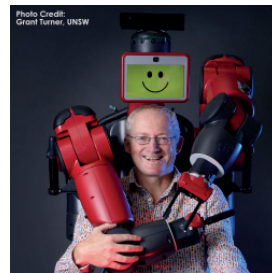
ISSN 1039-1843

OCTOBER 2021

For Your Diary

- 06 Oct
[1298th OGM and Open Lecture](#)
- 19 Oct
[Western NSW Branch Meeting](#)
- 04 Nov
[RSNSW and Learned Academies Forum 2021](#)

1298TH OGM AND OPEN LECTURE
Privacy and Identity in an AI world
Wednesday, 6 October 2021, 6:30 PM



Professor Toby Walsh FAA FACM FAAAS
Scientia Professor of AI, UNSW Sydney
See [page 4](#) for more information



Patron of The Royal Society of NSW
Her Excellency The Honourable
Margaret Beazley AC QC
Governor of New South Wales

**Western NSW Branch Meeting:
'With the Falling of Dusk'**

Tuesday, 19 October 2021, 1:00 PM



Professor Stan Grant
See [page 5](#) for more information

From the President

NSW residents wait in prolonged lockdown hoping that the modelling projecting that COVID-19 cases will peak in early October is correct and that the vaccination rollout and compliance with public health orders continue unabated. We have entered our fourth month of restrictions since the first infection of the highly transmissible B.1.617.2 (Delta) variant of SARS-CoV-2 was detected in Sydney on 16 June. Undeterred, our Society continues to advance thanks to the generous spirit and contributions of Council, its Committees, and many other members of the Society.

Since I wrote my column for the previous Bulletin, the Society has held four excellent virtual lectures: *Our Energy Future — The Unrecognised Opportunity in Glasgow: Context and Castles*, presented by Saul Griffith FRSN and Adi Paterson FRSN on 25 August; *Did the Aged Care Royal Commission provide a blueprint for Australia's aged care system?*, presented at the Hunter Branch meeting by Kathy Eager on 25 August; *Taking humour and laughter seriously: Exploring the multi-disciplinary field of humour studies* by Jessica Milner Davis FRSN on 1 September; and *Our Energy Future — The Unrecognised Opportunity in Glasgow: Crushed Rocks, and Castles* presented by Saul Griffith FRSN and Adi Paterson FRSN on 15 September. If you missed any of them, you should watch them on the [Society's YouTube channel](#).

The Society marked another important milestone on 14 September when it inaugurated the foundation Committee for our [Western NSW Branch](#), which joins our Hunter and Southern Highlands Branches in extending our reach well beyond greater Sydney. We are turning the virtual world in which we now live to our advantage by efficiently drawing people together from across NSW regions using video platform services. As I noted in my opening remarks at this meeting, *the RSNSW aims to reflect the entire NSW community in everything it does and within our membership. It is in this spirit that we are establishing the Western NSW Branch so that we can reflect the diverse mix of minds, backgrounds, and experiences from across NSW.*

The Society welcomes the Chair, John Germov, and Members of the Western NSW Branch, David Nash, Trent Pohlmann, Geoffrey Gurr, Lesley Forster, Francesco Marino, and Mark Morrison. We look forward to



the first open meeting of the Branch on 19 October when our patron, Her Excellency the Honourable Margaret Beazley AC QC, will provide some remarks, and journalist and writer, Stan Grant, Vice-Chancellor's Chair of Australian/Indigenous Belonging at Charles Sturt University in Wagga Wagga will deliver the lecture. I also thank Christina Slade (Council Member), John Hardie (Librarian) and George Willis (Hunter Branch representative on Council) for laying the foundations for this new Branch. We are indebted to them and the inaugural Committee for their leadership and commitment. Dr David Nash will represent the Western NSW Branch on Council.

Given the persisting COVID-19 lockdown, I contacted Government House to confirm the unlikelihood that the forthcoming RSNSW and Learned Academies Forum would be held face-to-face even with a diminished audience. This has led to the decision to conduct the Forum entirely online, split into two parts on consecutive mornings, 4 and 5 November. The theme of the Forum is '[Power and Peril of the Digital Age](#)'. We are at a moment in time when we must acknowledge and address the inevitably rising tide of data use and digital services. History will categorise the early decades of the 21st Century as the digital age, the age of prodigious development and use of digital technologies that enable us to transfer and access information easily and swiftly. So much so that digital interaction is a defining characteristic of modern human life. Societies, economies, and political processes are infused and connected by the ubiquitous use of smart machines and software that

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process and communicate information to us in ways that would have been unimaginable just a few years ago.

The Forum will be framed around the future life of a child born on the first day of the Forum 4 November 2021. This child will be born into a world of increasingly complex digital systems that hold great value and vulnerability. Starting with a technological framing, we will explore several major aspects which will impact the journey of that child as we approach 2030 when the child will be nine years old, 2050, when the child will be 29 years old, and beyond. We will explore aspects of technology, health, defence and security in a digital age, and the changing nature of

industry as the world and society evolve. I encourage you to register and encourage others to register for this not-to-be missed event when you receive the invitation.

We continue to work for the Society and for NSW because we understand the need to enhance public discourse on a wide range of topics that are crucial to our future. Society members have excellent ideas to contribute. In that spirit, I look forward to hearing your ideas and suggested ways to bring them to fruition.

Dr Susan M Pond AM FRSN
President, Royal Society of NSW

Vale Edric Chaffer

The Society is saddened to learn of the death on 6 September 2021 of **Mr Edric Chaffer**, a former President of the Society. He was 88 years old.



Edric Keith Chaffer was one of the longest-serving stalwarts of the Society, dedicating much of his life to its well-being. Joining as a student in 1954, he later served on Council for many years and was Honorary Secretary from 1970–1971 and President in 1975. He was a member of the Council that steered the Society through some of its most turbulent times, including the forced vacation of Science House and Science Centre, and the relocation of its library. His enduring interests were history, science, geology, and engineering.

In 1949, while still at school, he attended a lecture on geology given by the Society; that stimulated his life-long interest in the subject. As a result, he was able to persuade his school, Knox Grammar, to allow him to study geology as a sole independent student for the Leaving Certificate as the subject was not offered at that school. He was rewarded with Honours in the subject in 1950. His extensive rock collection still exists.

When he became President of the Society in 1975, he was obliged to nominate his discipline — he chose geology over his profession, tanning. He worked in his father's tanning business in Chatswood on Sydney's North Shore by day and studied geology by night at Sydney Technical College, where he later lectured on the subject. However, his Presidential Address to the Society was entitled 'Leather: why is it so?'. He stated that the most important lesson to be learned from life was how to think.

His generosity to the Society was boundless, exemplified by his donation of the refurbished boardroom armchairs and table to the Society, facilitated through his family-owned and operated tannery. He was often present in the Society's rooms helping in whatever way he could.

In June this year he took part in the 'Presidents' Reflections' interviews prepared for the Society's NEXUS Exhibition at the State Library of NSW. He commented at that time that he had always been very fond of the Society because of its multi-disciplinarity. In 1976 he was awarded the Royal Society of New South Wales Medal for services to science and the Society. He was extremely proud of this award, which was mentioned at his funeral held on 20 September 2021.

Privacy and Identity in an AI world

Professor Toby Walsh FAA FACM FFAAS

Scientia Professor of AI

School of CSE, UNSW Sydney

Date: Wednesday, 6 October 2021, 6:30 PM

Venue: [Zoom Webinar](#)

Entry: No charge

Enquiries: [via email](#)

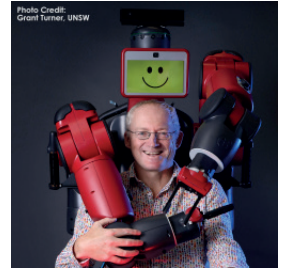
All are welcome.

Summary

Artificial Intelligence is making great advances, many of which challenge our notions of privacy and identity. From face recognition to automated decision making, what are the most pressing problems and how should we navigate this future to ensure a prosperous, just, and sustainable society?

About the speaker

Professor Toby Walsh is a Laureate Fellow and Scientia Professor of AI at the University of New South Wales and Data61, and an adjunct professor at QUT. He was named by the Australian newspaper as one of the 'rock stars' of Australia's digital revolution. He is a Fellow of the Australia Academy of Science and recipient of the NSW Premier's Prize for Excellence in Engineering and ICT. He appears regularly on TV and radio and has authored two books on AI for a general audience, the most recent entitled *2062: The World that AI Made*.



Welcome to new members

The Society is pleased to welcome the following new members to the Society. They were elected at the Ordinary General Meeting held on 1 September 2021. We hope that each of you enjoys your membership and is able to participate in all that the Society has to offer.

Fellows

- Professor David John Adams
- Professor Philip Stewart Bolton
- Ms Carolyn Jan Bowen
- Professor Min Chen
- Dr Simon John Devitt
- Dr Jai Christian Galliot

- Emeritus Professor Anthony John Hulbert
- Professor Christopher Bond Little
- Professor Nathan Lo
- Dr Colin Pardoe
- Professor Jennifer Robyn Potts
- Professor Lisa Rae Jackson Pulver
- Professor Leigh Albert Sullivan
- Associate Professor Rebecca Suter
- Professor Xiaoke Yi
- Professor Ken-Tye Yong

Members

- Ms Kate Carruthers

First Western NSW Branch Meeting

With the Falling of Dusk

Professor Stan Grant

*Vice Chancellor's Chair of Australian-Indigenous
Belonging
Charles Sturt University*

Date: Tuesday, 19 October 2021, 1:00 PM AEDT

Venue: [Zoom Webinar](#), registration required

Entry: No charge

Enquiries: [via email](#)

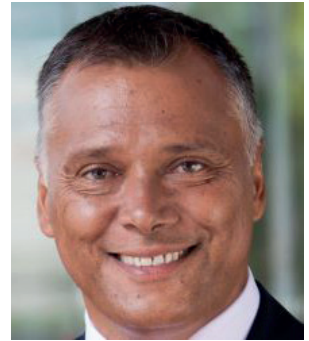
*Society Members, Fellows, and members of the public
are welcome.*

Summary

The world is at a critical inflection point with rising authoritarianism and waning democracy. The world's superpower, the United States, is waning and being challenged by a rising power, China. Not since the lead up to World War One have we seen such a fundamental shift in the global order. After two decades of terrorism, war, economic collapse and now a devastating global pandemic, what is to become of us? Renowned, award-winning journalist and Charles Sturt University Chair of Indigenous/Australian Belonging, Professor Stan Grant, takes us on a journey through a world of change calling on three decades of front-line reporting in Australia and around the globe. Stan explores questions of history and identity and argues the west may need to give up power to keep it.

About the speaker

Professor Stan Grant holds the CSU Vice Chancellor's Chair of Australian-Indigenous Belonging at Charles Sturt University. He is a highly respected and awarded journalist with a 30-year career that includes experience in



radio, television news and current affairs with the ABC, SBS, and CNN. Formerly, he was the ABC's Global Affairs and Indigenous Affairs Analyst. Stan Grant has been awarded three Walkley awards, two Peabody awards, four Asia TV awards, an Australian TV Logie award, an International Indigenous Trailblazer Award, two Australian Academy of Cinema Television awards, an Australian Heritage Literature award, and an Association of International Sports Journalists award, among many others. He has also published four critically acclaimed and best-selling books on identity and Australian Indigenous history, and in 2019 wrote (and featured in) the full-length documentary film, *The Australian Dream* which won the AACTA Award for best feature documentary in 2019.

NEXUS exhibition extended to 31 March 2022

The Society's NEXUS exhibition is expected to open at the State Library of NSW as soon as the current health orders permit. We expect this to occur in conjunction with the re-opening of the State Library shortly. Please look out for announcements about

this on the Society's website. The exhibition is sitting ready for your visit in the Jean Garling Room off the Shakespeare Place entrance to the library.



From the Archives: Who's not on the \$20 note any more?

by Bruce Ramage (Secretary)

This is the fourth in a series of articles that highlights items from the Society's extensive archives, some of which are held in the State Library of NSW, the NSW State Archives and within the Society itself.

In nineteenth-century Sydney there were not many vehicles for scientific publication. There were a handful of scientific societies formed in the second half of the century including the Linnean Society of NSW (1874), the Royal Geographical Society of Australasia (1883) and the Australasian Society for the Advancement of Science (1888). Few of them published scientific papers initially. There was of course the Royal Society of NSW which had several incarnations over the century: The Philosophical Society of Australasia (1821), the Australian Philosophical Society (1850), the Philosophical Society of New South Wales (1855), and finally the Royal Society of New South Wales (1866).

The proceedings of the Philosophical Society of 1850 were reported regularly in the local press. In 1857 selected papers and abstracts were printed in *The Sydney Magazine of Science and Art*, a private commercial venture, but the arrangement lasted only briefly. In 1866 appeared the Society's own publication, the *Transactions of the Philosophical Society of New South Wales 1862–1865*. The Royal Society of New South Wales initiated the yearly publication of its *Transactions* in 1867, and ten years later the present title *Journal and Proceedings of the Royal Society of New South Wales* was adopted.

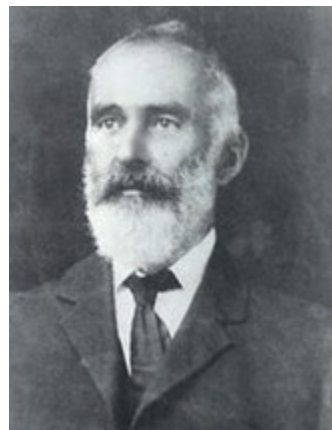
So what were you to do if you wanted to get your ideas out to a wider audience? You published in the Royal Society of NSW *Journal and Proceedings*. One of the most significant authors in the later part of the nineteenth-century was Lawrence Hargrave who was elected a member of the Society in July 1877.

Lawrence Hargrave (1850–1915), aeronautical pioneer and inventor, was born on 29 January 1850 at Greenwich, England, the second son of John Fletcher Hargrave (1815–1885) and his wife and cousin Ann,

née Hargrave. In 1856 JF Hargrave, leaving his wife and three younger children, sailed for New South Wales with his eldest son Ralph and brother Edward, to join another brother Richard, a member of the NSW Legislative Assembly. Ann Hargrave, with her children Lawrence, Alice and Gilbert, remained in England.

Lawrence went to Queen Elizabeth's School at Kirkby Lonsdale, Westmoreland. When he was 15, his father sent Ralph back to England to fetch him. They reached Sydney on 5 November 1865. Lawrence moved into Rushcutters Bay House which his father had built as a result of the beginnings of a successful yet turbulent career in the law and politics.

Lawrence Hargrave was an inventor from an early age. At Rushcutters Bay he created (and often used) a pair of boat-shaped boots with hinged flaps that let him walk on water. When he left school, and with his father's permission, he joined the first of several exploratory trips to Papua New Guinea after which he circumnavigated Aus-



tralia. On his return he was apprenticed in the engineering workshops of the Australasian Steam Navigation Co. where he worked for five years, learning design and other practical skills which would be invaluable to him later. His appetite for exploration had been whetted and he responded to the colonising and gold-feverish atmosphere of the 1870s and went on several more exploratory voyages to PNG.

Back in Sydney, Hargrave worked in the foundries of Chapman & Co., then spent five years from 1879 as extra observer (astronomical) at Sydney Observatory. He observed the transit of Mercury in 1881,

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made observations of the Krakatoa explosion which led him to a theory linking it with the brilliant sunsets seen at the time, assisted in the measurement of double stars, and designed and built adding machines to facilitate their calculations.

Thanks to his father's prudent and extensive land purchases, Lawrence was well provided for. At the age of 30, he inherited enough money to support his family while pursuing his passion for invention. By 1883, his income from land and coal was about £1000 a year. That year, he gave up paid employment and became a gentleman-inventor.

Hargrave conducted many experiments and made countless models of his ideas. He studied aerofoils and developed a wave-propelled boat, a screw-driven engine, a working model aircraft with flapping wings, and a rotary engine so ahead of its time it was re-created by another inventor in 1908 and used in aviation for many years.

His theoretical approach was based on the necessity to 'follow in the footsteps of nature'. He expounded the theory in a long paper, *Trochoided plane*, to the Royal Society of NSW on 6 August 1884, the first of a series of reports on experiments in the construction of machines for flying that he carried out both at Rushcutters Bay and later at Hillcrest House, Stanwell Park, the house he inherited from his brother Ralph (1848–1888) and to which he moved in 1893. In 1889 he built a compressed air engine powered by an arrangement of three rotating cylinders which was one of the great inventions of his career.

Hargrave is best remembered for solving the problem of creating man-made wings that provided lift, safety and stability. On the beach at Stanwell Park, Hargrave climbed into a sling seat attached to an elaborate series of four box kites carrying instruments to measure wind speed and altitude. With the help of his employee, James Swaine, Hargrave rose safely into the air — more than 16 feet — becoming the first person in history to be lifted off the ground by a stable fixed wing device.

In a paper published by the Royal Society of New South Wales, Hargrave wrote: 'The particular steps gained are the demonstration that an extremely

simple apparatus can be made, carried about, and flown by one man; and that a safe means of making an ascent with a flying machine, of trying the same without any risk of accident, and descending, is now at the service of any experimenter who wishes to use it.'

The Royal Society of NSW is fortunate in retaining several of the original drawings used to illustrate Hargrave's papers in its *Journal and Proceedings*. We also have an original framed photograph of one of his aeronautical models, together with an extra-large format book of 25 photographs of other models taken by the prominent Sydney photography company C. Bayliss. Included in the book is a letter of presentation to the Society dated March 1889 signed by Hargrave.



Lawrence Hargrave works on his invention of wings that created lift. Collection of Museum of Applied Arts and Sciences

A man of determined public views, Hargrave wrote many letters to the daily press proclaiming the principles of free competition and survival of the fittest, Darwinian theories of the evolution of species which he believed applied to all aspects of human society. But his strongest arguments were directed against the patenting system. He published all his theoretical work and divulged the results of all his experiments in the *Journal and Proceedings of the Royal Society of New South Wales* with the deliberate intention of foiling a 'master patent thereby throwing back our work for years'.

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Hargrave's social Darwinism and his literal engineer's mind refused to entertain the use of flying machines for war. When hostilities began in 1914, he returned the Bavarian award which he had received in recognition of his pioneering aeronautical work and, even before Australia declared war, reported himself for service; he was then almost 65.

On 7 September 1878 Hargrave had married Margaret Preston, the daughter of a Sydney shipping clerk. They had six children, one of whom died in infancy; their only son Geoffrey was killed in action at Gallipoli in May 1915. Hargrave died on 14 July

that same year at Darlinghurst from peritonitis following an operation for appendicitis and was buried in Waverley cemetery. Survived by his wife and four daughters, he left an estate valued for probate at £20,489. Margaret took her youngest daughter and her husband's papers, diaries and journals to England, where she settled.

Today his name is commemorated in many places and his 'dark, austere bearded features' framed by his box-kites, were engraved for the Australian \$20 note in circulation between 1966 and 1994.



Inaugural meeting of the Western NSW Branch

Members of the Western NSW Branch of the Society met for the first time via Zoom webinar on 14 September 2021. This important event was made possible with the generous support of Charles Sturt University which allowed the Society to access the technology for the meeting. At the meeting the President, Dr Susan Pond, welcomed regional and other members to the meeting and described the potential the new Branch had to enhance the intellectual life of the region. She also noted the importance of bringing regional perspectives to the Society.

At the meeting, the inaugural Branch committee was elected. It consists of:

- Chairperson: Professor John Germov FRSN
- Deputy Chairperson: Dr David Nash FRSN
- Secretary: Mr Trent Pohlmann MRSN
- Treasurer: Professor Geoffrey Gurr FRSN
- Committee: Professor Lesley Forster FRSN
- Committee: Professor Francesco Marino FRSN
- Committee: Professor Mark Morrison FRSN

This committee is elected until the Branch AGM to be held in March 2022. The meeting also elected Dr David Nash to be the Branch's interim representative on Council for the same period.



A new email address for the Branch has been created and it will be the prime contact for the Branch in future. It is western@royalsoc.org.au and it will be operational shortly. The Branch encourages all residents of the region to join the Society as there will be several significant opportunities for networking across and between disciplines, professions and areas of interest through the Branch's events, the first of which is to be held on 19 October and which is described elsewhere in this Bulletin. Other significant events are in planning for 2022.

by Malte C Ebach

In a letter to Ludwig Wilhelm Crammer (1755–1832), Johann Wolfgang von Goethe (1749–1832) asked to pass his thanks on to the Reverend Dr. Heinrich-Adolf Achenbach (1765–1819), who had proposed to name a mineral after the German polyglot:

... although [Goethite] has lost its name, [it] would always be very valuable to me. (Goethe to Crammer, 6 November 1816)

Has lost its name? Goethite is a well-known mineral. What happened to the naming of Goethite?

In *Zur Morphologie*, published in 1820, Goethe recalled at being humbled by having a mineral named after him:

Benevolent men in the Westerwald discovered a beautiful mineral and call it Goethite in my honour; I owe many thanks to Mr. Cramer and [Mr.] Achenbach.

The naming and usage of Goethite [Goethit] is part of a serpentine story. The mineral was found in 1806 near Siegen by Johann Daniel Engels (1761–1828) the Siegen Bergmeister [Mine Manager], who in consultation with his friend and mentor Achenbach, called upon mineralogist Christoph Ludwig Wilhelm Crammer (1755–1832) to name it Goethenit. The specimen made its way to Johann Georg Lenz (1748–1832) Professor of mineralogy at the University of Jena, who, after consulting with Friedrich Wilhelm Riemer (1774–1845), named it Göthit. Lenz (1806) described it in his *Tabellen für das gesamte Mineralreich* as ‘This dark ruby-red modification of the Eisenglimmer crystallised in interconnected three-sided tablets, which is very economical on the iron mine at Siegen ... has been added there in honour of our most venerable President, the privy councillor von Göthe’. The mineral, however, had already been discovered and named Pyrrhosiderit or Rubinglimmer (a compound term consisting of Rubinrot and Eisenglimmer) by Johann Christoph Ullmann (1771–1821), a professor of mineralogy at the University of Marburg. Ullmann had been using the term Pyrrhosiderit in class for years, something of which Achenbach and Engels were clearly unaware. Ullmann eventually published



Goethite from the Crystal Peak area, Teller County, Colorado, USA. By [Robert Lavinsky](#) (licensed under [CC-BY-SA-3.0](#)).

the term Pyrrhosiderit in his *Systematisch-tabellarische Uebersicht der mineralogisch-einfachen Fossilien* in 1814, which he described as ‘Rubinrother Eisenglimmer; Becher (Rubinglimmer). Göthit; Lenz’. Over time Rubinglimmer became the preferred term appearing in the 1826 edition of *Handbuch der Oryktognosie* by Karl Cäsar von Leonhard as:

1. Braun Eisenstein.
 - a. Rubinglimmer.
- Pyrrhosiderit, Göthit, krystallisirter faseriger Braun-Eisenstein, Fer pourpré ...

In *Zur Morphologie*, Goethe lamented that the name Goethite wasn’t officially adopted:

I owe many thanks to Mr. Cramer and [Mr.] Achenbach for this, although this designation quickly disappeared from the *Oryktognosie*. It was also called Rubinglimmer, currently known as pyrrhosiderite. It was enough for me that someone had thought of me for just a moment with such a beautiful natural product.

There is, however, a twist to the story. In 1901, François Alfred Lacroix (1863–1948) examined the original specimens from Siegen and noted that Goethite and pyrrhosiderite were both gamma forms of iron oxide-hydroxide [$\gamma\text{-Fe}^{3+}\text{O}(\text{OH})$], now known as Lepidocrocite. Lacroix concluded that lepidocrocite had priority as the name for the gamma form (given pyrrhosiderite was introduced eight years later by Ullmann in 1814), but instead assigned it to the alpha form [$\alpha\text{-Fe}^{3+}\text{O}(\text{OH})$], for which it is known today.

Date: Thursday and Friday, 4–5 November 2021,
9:00 AM–12:30 PM AEDT

Venue: Live streaming (subsequently on YouTube)

Program and full details: <https://royalsoc.org.au/blog/rsnsw-and-learned-academies-forum-2021>

The Royal Society of NSW acknowledges the generous support of Her Excellency, the Honourable Margaret Beazley AC QC, Governor of NSW, the Office of the NSW Chief Scientist and Engineer, and the NSW Smart Sensing Network.

Summary

We are at a moment in time when we must acknowledge and address the inevitably rising tide of data use and digital services. History will categorise the early decades of the 21st Century as the digital age, the age of prodigious development and use of digital technologies that enable us to transfer and access information easily and swiftly.

So much so that digital interaction is a defining characteristic of modern human life. Societies, economies, and political processes are infused and connected by the ubiquitous use of smart machines and software that process and communicate information to us in ways that would have been unimaginable just a few years ago.

The pace of digitisation was already fast by the end of 2019 before COVID-19 emerged. The pandemic broke through cultural barriers and enabled implementation of digital strategies in a matter of days or weeks rather than years. Digital technologies are central to dealing with the pandemic itself, as well as being the primary driver of productivity in almost every other aspect of society.

Almost all companies, governments and organisations across the world are increasingly taking advantage of the benefits associated with data analytics, artificial intelligence, and the Internet of Things to solve problems never solved before, to undertake projects in five days that would have taken five years — problems such as those embodied in the United Nations General Assembly's Sustainable Development Goals and their achievement by 2030. Tangible benefits include greater social connectivity,



learning opportunities, information storage, versatile working and transport, and greater access to entertainment, news, banking and finance.

Unlocking the power of the digital age also brings peril, associated with concerns about data security, state-based and transnational crime, and terrorism, complexity, privacy, social disconnection, media manipulation, manipulation of the truth, communities left behind, national defence and market vulnerabilities, outstripping rule-making and regulatory structures.

This year, the Royal Society of NSW in partnership with the Learned Academies — Health and Medicine, Humanities, Science, Social Sciences, and Technology and Engineering — has chosen 'Power and Peril of the Digital Age' as the theme for its annual Forum.

Our goal is to have a grown-up conversation about digitisation and the use of data. It will be framed around the future life of a child born on the first day of the Forum: **4 November 2021**. This child will be born into a world of increasingly complex digital systems that hold great value and vulnerability.

Starting with a technological framing, the Forum will explore several major aspects which will impact the journey of that child as we approach 2030 and beyond. We will explore aspects of technology, health, defence, and security in a digital age, and the changing nature of industry as the world and society evolves.

Finally, our annual Forum will be a call to arms for the host Societies to focus on challenges identified during the day that must be addressed for Australia to remain a prosperous, successful, and safe democracy in the digital world.

Report: Events Committee

*by Christina Slade (Chair, Events Committee)
and Lindsay Botten (Webmaster)*

The Royal Society of NSW hosted a range of events over September.

Dr Jessica Milner Davis FRSN addressed the [1297th OGM](#) on 1 September on the topic of ‘[Taking humour and laughter seriously: Exploring the multi-disciplinary field of humour studies](#)’ and delivered a stimulating presentation. Professor Elizabeth Deane, the secretary of the Events Committee, managed a broad range of questions in a masterly fashion.

On 15 September, we heard the second of two discussions between Dr Saul Griffith and Dr Adi Patterson, both Fellows of the Society. Both sessions provided an important and positive viewpoint relating to ‘Our Energy Future: The Unrecognised Opportunity in Glasgow’ and how this might be addressed by ‘electrifying everything’. Part 2 was titled ‘Crushed Rocks’ and is available on [YouTube](#), along with the first session, titled ‘[Context and Castles](#)’.

The [1298th OGM](#) will be held on Wednesday, 6 October at 6:30 PM when Professor Toby Walsh FAA FACM FAAAAS, the Scientia Professor of Artificial Intelligence at UNSW (Sydney), will address the Society on the topic of ‘Privacy and Identity in an AI world’. This will be held online.

The inaugural meeting of the Western NSW Branch of the Royal Society of NSW was held at 2 PM on 14 September. Following that meeting, the initial presentation from the Western NSW Branch, titled ‘[With the Falling of Dusk](#)’, will be delivered by Professor Stan Grant on 19 October at 1 PM as a Zoom webinar (registration required).

Visits to the Nexus exhibition at the State Library, celebrating our 200th anniversary, continue to depend on COVID rules.

COVID has likewise delayed the public lecture presentations by the three 2020 award winners. These are to be hosted by their home institutions as live events in 2022 and include the Clarke Medallist, Professor Michelle Leishman, Macquarie University; the Liversidge Lecturer, Professor Richard Payne University of Sydney; and the Poggendorff Lecturer, Professor Angela Moles, UNSW (Sydney).

The Society and social media

The Society’s presence on social media platforms is slowly but surely growing. Our [Facebook page](#), [Twitter feed](#) and [YouTube channel](#) continue to attract and engage followers and viewers, and we continue to build a repository of online events conducted recently on YouTube. The icons on the right will take the reader to the platforms’ respective pages, from where they can follow and subscribe to the Society, and be notified of new content.



Society Fellows as finalists in the 2020 Australian Museum Eureka Awards

A number of Society Fellows are amongst the [Finalists of the 2021 Australian Museum Eureka Awards](#) — the country's most comprehensive national science awards, honouring excellence across the areas of research and innovation, leadership, science engagement, and school science. Presented annually in partnership with some of the nation's leading scientific institutions, government organisations, universities and corporations, the Eureka Prizes raise the profile of science and science engagement in the community by celebrating outstanding achievement.

Amongst the finalists in this year's Prizes are:

- **Professor Raina Macintyre FRSN** — a member of the U-Breathe team from UNSW, nominated for the 2021 Eureka Prize for Excellence in Inter-disciplinary Scientific Research



- **Professor Justin Gooding FRSN FAA FTSE** and **Professor Maria Kavallaris AM FRSN FAHMS** of UNSW Sydney, Australian Centre for Nano-Medicine, and the Children's Cancer Institute, nominated for the 2021 ANSTO Eureka Prize for Innovative Use of Technology
- **Professor Maria Kavallaris AM FRSN** of UNSW Sydney and the Children's Cancer Institute, nominated for the 2021 Eureka Prize for Leadership in Innovation and Science
- **Professor Karu Esselle FRSN**, nominated for the 2021 University of Technology Sydney Eureka Prize for Outstanding Mentor of Young Researchers
- **Professor Veena Sahajwalla FRSN FAA FTSE** of UNSW Sydney, nominated for the Celestino Eureka Prize for Promoting Understanding of Science.

The Awards will be announced at an online ceremony on the evening of 7 October 2021.

List of proposed events for 2021

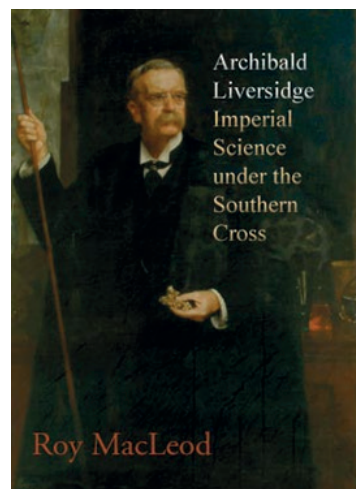
Kindly note that this is a provisional list and will be subject to change. Updates will be reflected in future issues of the Bulletin and on [our website](#).

Date	Event
Wednesday, 6 October 6:30 PM AEDT	1298 th Ordinary General Meeting and Open Lecture: Privacy and identity in an AI world Scientia Professor Toby Walsh FRSN FAA FACM FAAAS
Tuesday, 19 October 1:00 PM AEDT	1 st Western NSW Branch Meeting With the Falling of Dusk Professor Stan Grant
Thursday–Friday, 4–5 November 9:00 AM–12:30 PM AEDT	Royal Society of NSW and Learned Academies Annual Forum Power and Peril of the Digital Age Venue: Live Streaming and subsequently on YouTube
Wednesday 1 December 6:30 PM AEDT	1299 th Ordinary General Meeting and Open Lecture Managing psychological distress in times of stress: handling the stress of COVID-19 and all that Scientia Professor Richard Bryant AC FASSA FAA FAHMS — James Cook Medal Winner 2020

Archibald Liversidge: Imperial Science under the Southern Cross

When Archibald Liversidge first arrived at Sydney University in 1872 as reader in geology and assistant in the laboratory, he had about ten students and two rooms in the main building. In 1874, he became professor of geology and mineralogy; by 1879, he had persuaded the senate to open a faculty of science. He became its first dean in 1882. In 1880, he visited Europe as a trustee of the Australian Museum and his report helped to establish the Industrial, Technological and Sanitary Museum which formed the basis of the present Powerhouse Museum's collection. Liversidge also played a major role in the setting up of the Australasian Association for the Advancement of Science which held its first congress in 1888.

One of his greatest contributions was to science education. He worked tirelessly to secure proper recognition of science in both secondary and tertiary education. In the preface of his book, Professor MacLeod comments: 'Liversidge remained confident that Australia's path would follow the route of the "moving metropolis", strengthened by the bonds that tied Australia to its British heritage. In that heritage lay his life, and through that heritage, flowed the genius of imperial science in New South Wales'. To order your copy, please complete the [MacLeod: Liversidge order form](#) and return it to:



The Royal Society of NSW (Liversidge book)
PO Box 576
Crows Nest NSW 1585
Australia

or contact the Society:
Phone: +61 2 9431 8691
Email: info@royalsoc.org.au

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The current Council and office-bearers of the Society are:

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Editor: [Jason Antony MRSN](#)

