

National eResearch Newsletter - November 2021

Message from AeRO:

eResearch Australasia Conference 2021 already seems a long time ago, but we hope that you have completed the Survey, as this provides invaluable feedback for future planning (and provides you with a Certificate of Attendance). It seems to have been much appreciated by the 550 delegates who attended, albeit it was a virtual event, with plenty of information, interaction and interest in evidence.

AeRO is giving some thought to the future of this Newsletter. The number of articles has been steadily growing (with the annual average rising from 14 in 2018, then 18, 20, and 24 in 2021. This may make reading the lengthy Newsletter somewhat tedious, but it also reflects how valuable it is considered to be by the eResearch community (and the numbers of opens and clicks remain high). This is a good problem to have! Possible solutions could be more severe culling of article submissions (not an attractive solution), or moving from monthly to a fortnightly frequency (this has resource implications). We will look to making some changes, perhaps, in the New Year. In the meantime, if you have suggestions, please send them in (addressed to editor@aero.edu.au).

Alex Reid, Editor, eResearch Newsletter.

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A Webinar on "Meeting Publisher Requirements: Data, Samples, Software, Models & Notebooks" will be held on 23rd November, 11:30 am to 1:00 pm AEDT, organised by AGU, ARDC, NCI, AuScope, and TERN.

The first part of the webinar will be led by the AGU Data Management Team on how researchers can meet FAIR publisher requirements for including include data, samples, software, models & notebooks in their scholarly publications.

The second part will be an open mic led by ARDC to hear from Australian researchers on what could be done to help them meet these FAIR publication requirements.

Registration: https://www.eventbrite.com.au/e/meeting-publisher-requirements-data-samples-software-models-notebooks-tickets-194238120447.

Data Stewardship Survey: closes 25-Nov



RDA Data Stewardship Organisational Models Survey

Are you responsible for planning or executing actions that aim to optimize usability, reusability, and reproducibility of data? Then we want to hear from you in this survey!

The RDA Professionalising Data Stewardship Interest Group (PDS-IG) is seeking help from the research data community in modelling different approaches to research data stewardship. Data Stewardship comes in many forms and contexts, with the common goal of supporting data management. We would be grateful to hear from any research data stewardship service provider to help us capture the sheer diversity of activities, roles and environments around the world. Please pass on.

Access the survey: https://www.qualtrics.manchester.ac.uk/jfe/form/SV_dhEtf6fYpYIJOlw.

RSE-AUNZ Committee Nominations Sought: by 23-Nov



The Research Software Engineering Association of Australia and New Zealand (RSE-AUNZ: http://rse-aunz.github.io/) represents researchers-who-code, generalists, software engineers and systems administrators. It aims to build awareness of the diverse Research Software Engineer (RSE) roles, to connect volunteers in the RSE domain, and to help build practical solutions for the RSE community. The call for nominations to the steering committee of RSE-AUNZ has opened, and closes 23 November.

Go to: https://github.com/rse-aunz/organisation/blob/master/Elections/2021/call-for-nominations.md.

November ORCID Open Chat Hour (Asia Pacific): 23-Nov



Join us for our monthly open chat event on 23 Nov. This month's topic will be affiliation data. We'll start with a short presentation on organisation identifiers, affiliation types and the newly released Affiliation Manager. Afterwards we'll open the microphone for questions and discussion.

10:00 AWST (Perth), 12:00 AEST (Brisbane), 13:00 AEDT (Sydney), 15:00 NZDT (Wellington)

For more information, and to

register: https://us06web.zoom.us/meeting/register/tZYscu6spzoiGtcN9nbC1ircRGVPvxo9lj2W.

Research Bazaar Auckland 2021: 22 to 26-Nov



The Research Bazaar is a worldwide festival promoting the digital literacy emerging at the centre of modern research.

ResBaz Auckland will run from 22 to 26-Nov. Visit the ResBaz website (https://resbaz.auckland.ac.nz/) for more updates and check out this year's programme, and pick-n-mix the sessions you wish to attend.

ResBaz Sydney 2021: 23 to 25-Nov



This free 3-day online conference style event will allow researchers and research students across all disciplines to learn, share knowledge and experience with cutting edge technologies, methods and techniques in digital research.

We also invite you to submit a digital poster about yourself! See https://resbaz.github.io/resbaz2021/sydney/posters/. Posters will be displayed during the ResBaz Hacky Hour in gather.town and people will get to chat with you about your project, tools and challenges.

Check out the program here: https://resbaz.github.io/resbaz2021/sydney/program/.

Also: join Ann Backhaus, Pawsey, and Jingbo Wang, NCI, for an Introduction to NCI and Pawsey (Wednesday, 24-Nov at 2pm AEDT); and find out if your laptop is adequate for your research project on Thursday 25-Nov, 1pm AEDT.

Click here to register: https://resbaz.github.io/resbaz2021/sydney/.

ResBaz Queensland: 24 to 26-Nov



The Research Bazaar is a worldwide festival promoting the digital literacy at the centre of modern research, and events will be held at a number of university campuses around the world.

The 2021 Queensland Research Bazaar will be a three-day intensive conference hosted by The University of Queensland, where researchers will come together to up-skill in "next generation digital research tools and skills". ResBaz is a highly participatory event where researchers from many different disciplines can learn, share knowledge and skills, and have fun!

We are also hosting a one-day satellite event, on Friday 26 November, at Griffith's Gold Coast Campus (https://www.eventbrite.com.au/e/resbaz-gold-coast-2021-tickets-192062111947).

More information: https://resbaz.github.io/resbaz2021qld.

Pawsey Supercomputer Training: 23-Nov to 9-Dec



With Setonix scheduled to deliver 50 PetaFLOPs of compute power, several training sessions have been schedule at Pawsey. With all the sessions delivered online and for free, there has not been a better time for researchers using or considering supercomputing for their research project to gain expertise.

Introduction to Pawsey:

23-Nov-21 10am AWST, Online: https://pawsey.org.au/event/2021-11-23-introduction-to-pawsey-supercomputing-research-centre/.

Get Started with the Cray EX Programming Environment:

23 to 24-Nov-21 8:30am to 4:30pm AWST, Online: https://pawsey.org.au/event/2021-11-23-24-get-started-with-the-cray-ex-programming-environment/.

Experience with porting and scaling codes on AMD GPUs:

9-Dec-21 9:30am to 12:30pm AWST, Online: https://pawsey.org.au/event/experience-with-porting-and-scaling-codes-on-amd-gpus/.

Getting ready for AMD GPU and Programming Techniques for Exa-scale panel discussion:

9-Dec-21 12:30am to 2:30pm AWST, Online: https://pawsey.org.au/event/getting-ready-for-amd-gpu-and-programming-techniques-for-exa-scale-panel-discussion/.

Bioinformatics Training and Needs Survey: by 22-Dec



Australian BioCommons and the National Bioinformatics Training Cooperative offers national training to uplift the skills of Australian biologists and bioinformaticians. We collaborate to ensure we offer the best training opportunities and it is important to hear what training the bioscience research community needs.

Please complete the national bioinformatics training needs survey before 22 Dec 2021, at https://forms.gle/1Y6d6RBfExMoYgGs7.

Australia-Wide Soil Moisture Data



TERN's new world-leading soil moisture information system provides nation-wide daily estimates of volumetric soil moisture at a 1km resolution and an index of how full (or wet) the top 90cm of soil is at a particular location and time. The system will help land managers better monitor drought, predict bushfires and floods and make highly informed management choices to improve agricultural productivity. See: https://www.tern.org.au/news-smips-soil-moisture/.

Catch Up with TERN at the Ecological Society of Australia Conference



The Ecological Society of Australia conference is rapidly approaching, and TERN is proud to be both a major sponsor and a participant. Read on to find out about our workshop on publishing your research data via TERN and where else you are likely to find TERN, including at the long-term ecological research workshop and presenting on topics like the Threatened Species Index.

See: https://www.tern.org.au/news-tern-at-esa21/.

Intersect Research-Oriented Training Courses



If you are a HDR student, researcher or professional staff from any university or organisation, Intersect Australia offers multiple hands-on, research-oriented training courses on digital tools and technologies: https://intersect.org.au/training/about/.

Intersect also offers free webinars on topics to researchers at all levels, the program available on our website: https://intersect.org.au/training/webinars/.

Intersect has recently partnered with NCI Australia to deliver a set of digital research training workshops on cutting edge technologies and tools to NCI

users. See: https://opus.nci.org.au/display/Help/Skill+Sharpening+-+User+Training%2C+Nov-Dec+2021.

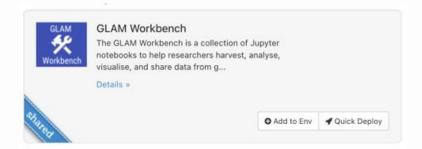
Pawsey's New Visualisation Lab is Now Open to Early Adopters



The new visualisation lab located at the Pawsey Centre features a 4.8m wide stereoscopic 3D Sony CLED display with HDR and almost perfect contrast. It's perfect for large scale data visualisation and analysis, as well as serving as a collaborative space for researchers.

Australian researchers can now apply to use the new visualisation lab. To apply, visit the Pawsey application portal at http://apply.pawsey.org.au/; or for a demo, contact the team via help@pawsey.org.au.

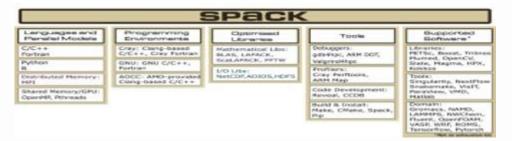
GLAM Workbench in the Nectar Cloud



Good news for researchers wanting to work with large amounts of data from Trove, the National Archives of Australia, the Australian Web Archive, or other sources from libraries, archives, and museums – the GLAM Workbench is now available as a pre-configured application in the Nectar Research Cloud. Just select the app, set a few values, and you'll be up and running in minutes. The GLAM Workbench uses Jupyter notebooks to provide a wide range of tools and resources to harvest and analyse GLAM data. More data sources will be added to the Nectar app in coming months.

More information here: https://glam-workbench.net/using-nectar/.

More Efficient Scientific Software Management for Setonix Supercomputer



A flexible, open-source package management tool that can support multiple versions and configurations of software will be adopted as part of Pawsey Supercomputing Research Centre's configuration of software and hardware for Setonix.

To enable easy and performant software installations for staff and researchers, Pawsey experts are adopting Spack, a package manager developed by Lawrence Livermore National Laboratory (LLNL) that has become a widely adopted tool.

Spack (https://spack.io/) is simple, non-destructive and has been built with community contributions making it ideally suited for HPC, with installation recipes for 4000+ software packages.

See: https://pawsey.org.au/more-efficient-scientific-software-management-for-setonix/.

Evolving CloudStor to Meet the Changing Needs of Research



AARNet is strongly committed to developing and delivering services that meet the unique needs of researchers, and our CloudStor research data storage and collaboration platform is a great example of this. We recently made some changes to the way that we develop and deliver services for researchers to ensure that they are embedded at the very core of our operations, and match the high quality and performance expected of our network.

See: https://news.aarnet.edu.au/evolving-cloudstor-to-meet-the-changing-needs-of-research/.

CloudStor Clinics



AARNet is introducing fortnightly CloudStor Clinics to empower researchers and CloudStor users, catering for absolute beginners through to advanced users from all areas of research. Participants can drop in any time to discuss problems they are trying to solve or issues they would like to address relating to CloudStor. AARNet staff from the eResearch, CloudStor and Service Desk teams will be available to share knowledge and help users make the most of the CloudStor service.

Find out more and register: https://www.aarnet.edu.au/events/cloudstor-clinics.

Pawsey Helps Track Martian Meteorites to their Source



Pawsey supercomputers helped researchers at Curtin University track the original location of a group of meteorites from Mars.

The research has pinpointed the Tooting crater, located in the Tharsis region of Mars, as the likely origin for some of the 166 Martian rocks ejected from the surface of the red planet in the past 20 million years, using supercomputing and machine learning to determine potential launch points.

While the findings, published in Nature Communications, are significant by themselves, the algorithm and supercomputing method used has important implications for future astronomy research.

Read more: https://pawsey.org.au/pawsey-helps-track-martian-meteorites-to-their-source/.

Minderoo Foundation Invests in ARDC Bushfire Data Challenges Program



Minderoo Foundation is investing \$1.2 million in phase 1 of the ARDC Bushfire Data Challenges program to expand the scope of work focusing on modelling fire behaviour.

Sharing data is critical for preparing for and managing bushfires. Minderoo Foundation will support the work of the ARDC and partners from the bushfire research and response community to improve data sharing through innovative digital infrastructure solutions that aim to improve Australia's bushfire resilience, response and recovery.

See: https://ardc.edu.au/news/minderoo-foundation-invests-1-2-million-to-expand-bushfire-data-challenges-program/.

Explosive OpenStack Growth: Nectar



The ARDC Nectar Research Cloud team was interviewed by OpenStack cloud software about its explosive growth, doubling in size in the past year.

Paul Coddington, associate director of research cloud and storage, and Carmel Walsh, director, eResearch infrastructure and services at Australian Research Data Commons (ARDC) presented their OpenInfra use case and explained why their OpenStack deployment is growing so quickly.

Read More: https://superuser.openstack.org/articles/explosive-openstack-growth-nectar/.

Data Management Planning Best Practice



ARDC research infrastructure and guidelines support good data management practices by providing a national standard. Learn how these best practices for data management are contributing to training the next generation of climate scientists.

Data Management Plans document how researchers manage data for a research project. They are an essential component of planning and delivering a successful project, ensuring the data generated from the research are well managed and able to be reused efficiently.

Recently, Dr Paola Petrelli, CMS data manager for CLEX, the ARC Centre of Excellence for Climate Extremes, shared her approach to data management planning.

Read more: https://ardc.edu.au/news/data-management-planning-with-ardc-research-infrastructure/.

Pawsey Annual Report 2020/21 is Now Available



Pawsey is delighted to present its new Annual Report, reflecting on its achievement during 2020-2021 - a year in which the value of Pawsey's infrastructure, expertise and people has never been clearer, and shows how we have delivered on our mission of supporting science and accelerating discovery.

We invite you to read the highlights of the year or download the full annual report, where you can read more about the science and support delivered during the past financial year and meet some of the people behind these successes.

Highlights: https://pawsey.org.au/space-quantum-covid-19-research-took-centre-stage-in-2020-21/.

Full report: https://pawsey.org.au/wp-

content/uploads/2021/10/Pawsey_AnnualReport2021_Digital_PR-1.pdf.

Culture-Mapping Tool TLCMap Wins National Award



A digital platform that revolutionises how researchers analyse Australia's history and culture over time has won gold for education services at the 2021 Good Design Awards.

The Time Layered Cultural Map of Australia (TLCMap) is a suite of digital tools that gives humanities and social science (HASS) researchers a unique means of visualising and interrogating historical and cultural data based on spatio-temporal coordinates. It was developed with help from an ARC LIEF grant and co-investment from ARDC.

Project leader Emeritus Professor Hugh Craig, University of Newcastle, explained how the TLCMap platform democratises access to historical and cultural data sets.

Read more: https://ardc.edu.au/news/culture-mapping-tool-wins-national-award/.

Contributions

This newsletter is based on contributions from members of the eResearch community, and draws on news articles and newsletters published across the sector. The Newsletter is published around the 16th of each month. Please send all contributions (max. 100 words + link + image) or pointers to any other relevant articles or newsletters to editor@aero.edu.au.

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Thanks, Alex Reid, AeRO Newsletter Editor.