

I'd like to begin with a story.

In nineteenth-century Australia, newspapers were the main local publishers as well as the major sources of fiction: local and imported.

Dr Katherine Bode, Associate Professor, Literary and Textual Studies at the Australian National University College of Arts and Social Sciences wondered about that fiction which had not been studied or even recorded as part of the body of Australian literature.

What works of fiction were out there? And what is their contribution to Australia's literary history? Fortunately Trove, has now digitized and made freely available around 1,300 of the estimated 7,700 Australian newspapers ever published.

Trove has made it possible, for the first time, to explore nineteenth-century Australian newspaper fiction in a systematic and extensive way.

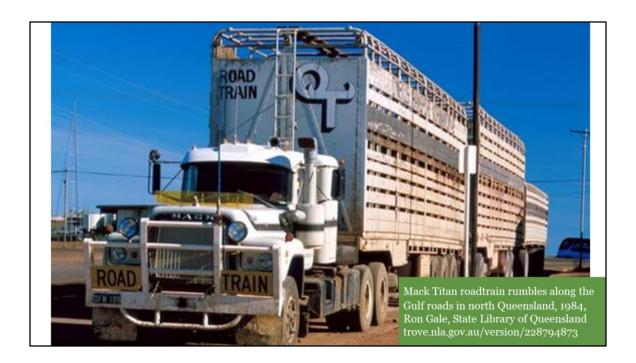
Dr Bode devised a paratextual method to mine Trove's digitised newspapers to automatically identify and harvest fictional content. She discovered over 16,500 fictional works, which has massively expanded the record of nineteenth-century Australian literary culture and its connections with the international circulation of fiction in this period. Her discoveries will be published in a new book *A World of Fiction: Digital Archives and the Future of Literary History*, due in 2018.

These newly found works will be highlighted on Trove by enriching the metadata. Dr Bode is now working with the Trove team to load that corpus back into Trove as brand new records, describing works of fiction where any member of the public or researcher can find and re-use them.



## So what is Trove? Trove has four basic functions:

- It's an aggregator of collections from research, cultural heritage and community organisations. In the story I've just told you, Dr Bode's new data becomes one of the new collections from over one thousand organisations which Trove aggregates.
- It's a digital collections host most known for digitised newspapers but more recently expanded into hosting other types of digitised content particularly journals and books, but also a range of unpublished content, as well as born digital content.
- It's a platform to research and build with some basic tools in the interface and a number of APIs to make the data freely available. Trove offers the capacity for users to curate lists, and add tags and comments to material in Trove. To date, over 5 million tags, over 170,000 comments and almost 70,000 publicly available lists have been added to Trove. In the newspapers zone, there are over 242 million lines of text corrected equating to 622 years of work or \$42 million.
- It's a community who research, make connections, correct and enrich the data for others and there are partners who provide content.



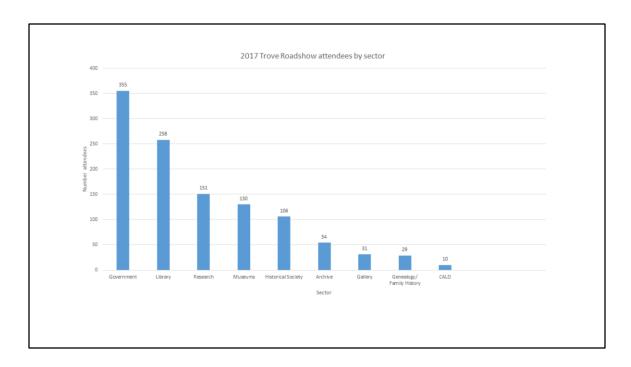
I'd like to say a few words about our community.

Trove has just been out on the road – very literally, talking with over a thousand people in capital cities and regional centres around Australia, about Trove.

From May to June 2017, Trove presented a series of information sessions. The purpose of the Roadshows was to provide information and advice to current and potential partners on how to share collections via Trove, and to promote awareness of Trove's current activities.

It was also an opportunity to thank those who support or contribute to Trove and to gain important feedback from partners, contributors and colleagues.

The format of the Roadshows provided attendees with the opportunity to learn more about Trove partnerships, ask questions, provide feedback, share their stories and to network with peers in their own communities.

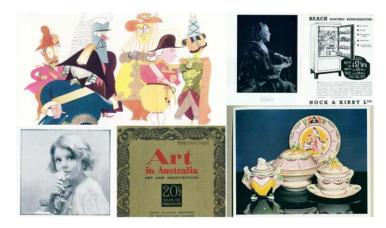


As indicated in the graph, representation from across the GLAM sector and from research and government organisations was good (note that the categorisations are not mutually exclusive—organisations attending were sometimes classified as belonging to more than one sector). Three hundred (30%) of attendees were from regional areas.

As a result of the Roadshow, we've had considerable interest from digitisation partners and a number of new projects are now in the planning stage. For its digitisation projects, the National Library generally does the digital capture, content processing, which includes optical character recognition and content analysis, delivers the material on Trove, and stores or hosts it in the Library's digital repository.

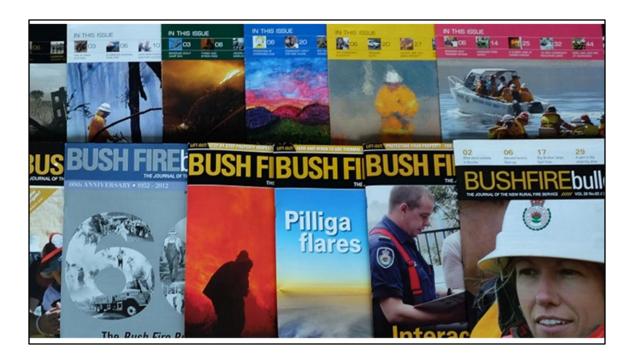
To date, over one hundred organisations have partnered with Trove to digitise and deliver content.

## Digitising Art in Australia



An example of one of these partnerships is the digitisation last year of Art in Australia, a significant early twentieth-century art magazine. The University of Wollongong and the University of New South Wales partnered with the National Library to digitise this magazine.

Now, almost 10,000 pages are being hosted and delivered through Trove.



Another digitisation project Trove did last year was the NSW Rural Fire Service's Bush Fire Bulletin – all 6,500 pages now hosted by and delivered through Trove.

One of the key messages that resonated with all audiences was on the unknown benefits of sharing their collections more broadly. Many Roadshow attendees let the Trove team know about significant items they would love to share online.

And Julia will tell you a little of what we learnt about communities sharing their collections during the Roadshow.



Over one thousand Australian cultural, community and research institutions, including all Australian universities, participate in Trove. From large cultural institutions to tiny outback museums, Trove brings these collections together into one cohesive experience by harvesting the metadata.

One of the main things the Trove team does day to day is aggregate collections. That involves taking in metadata and fulltext from research, cultural heritage and community collections.

There's a lot of fear and out of date information about that process. For example, that data has to rigidly be in a very specific form of Dublin Core. That you absolutely must use OAI-PMH. That you shouldn't even bother talking to Trove until you've spent money upgrading your system.

All of that is a hark back to the days of predecessor services like ARO and Picture Australia that haven't been around for five years or more. It's a lesson that rigid practice, which turned people off in the past, is going to linger long after the involved staff are gone.

One of the reasons we went out on the road was to dispel those myths. We're not rigid about what format data is in, how rich data is, or how we can get it into Trove. In fact we're quite flexible.

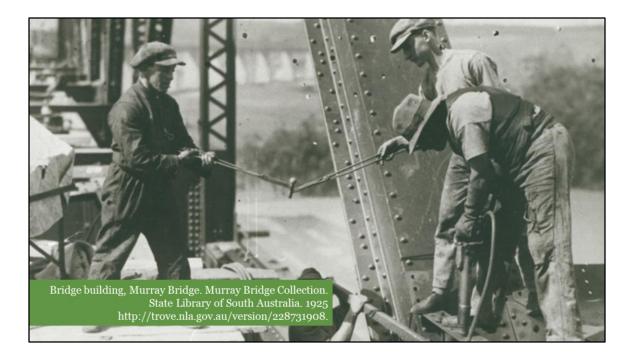
For data to come in, a member of the Trove team has to set up and maintain an individual connection. That's true for each of the hundreds of different databases and websites, which are all configured slightly differently. No matter what format the data is stored in in its local home system, the work we do is to normalise that data as it comes into Trove.

To make sure its reliable and reproducible, that the hundreds of different sources end up with the same data in the same fields when it comes to Trove. That means the records act as expected within Trove's user interface. It also means we can export that data as a single reliable set through our API.

We do that for ourselves but we wanted to convey to people that the burden is not on them. We want them to make their data as complete and accessible as possible. And if they're scared off by technical terms like Dublin Core and OAI-PMH, to not worry.

The good news is, they heard that loud and clear, and we've seen a bump in non-Libraries joining Trove. 6 new small museums. 3 new historical societies. 2 new archives. 2 new galleries. And more waiting in our backlog. We've also had libraries get that message and start contributing more of the special collections outside of the Library Catalogue and Institutional Repository.

For example there's a system called Omeka that's being used in some Universities, either by the Library or by individual researchers, to display special collections and research collections. We've had 2 of these go live and 2 more are in discussions. We're aggregating new collections from new partners, and more collections from existing partners – that's one big outcome of the Roadshow.



Open access is something we strive to support. One of the great things about being out on the road was hearing that for many other collection curators, this is important too.

For libraries, particularly those that provide access to eResources or host digitised collections, we know there's desire to properly reflect the accessibility of those collections in Trove. When we talk about Open Access to Libraries and Institutional Repositories, we're talking the same language about not hitting authentication challenges or paywalls. We're talking about what licence conditions are attached that make or prevent the content from being re-usable. We're talking about new standards and flags you can include in your metadata to indicate those things, like Creative Commons, and rightsstatements.org and the free\_to\_read tag, and the licence\_ref tag.

What's interesting is that in other parts of the GLAM sector, open access means something different.



A big lesson from the Trove Roadshow, for me, was around galleries and open access. Prior to the Roadshow, Trove only had three galleries that were contributing information about their non-Library collections.

Hearteningly, quite a few galleries came to the Roadshow presentations, particularly in regional areas. Here's Anya and I being shown around the New England Regional Art Museum's storeroom by their Director Bob Heather. Their gallery space can only show a tiny percentage of the priceless Australian art works they have in their back storeroom.



Here we are looking at Christoe's original sketch and designs for Wrapped Coast at Little Bay. A sample of the rope and sheeting that he used are cut out and attached to the paper. An amazing, internationally significant modern art work.

Now libraries have catalogues, OPACs. Putting descriptions of books online even if you can't read it online is a big part of our business. We don't call that open access, we call that discovery.

Galleries, on the other hand, are very visual. They want to show things. They've got vast collections like this one that aren't out on display and that the public can't get any access to, even if they're standing in the building. Since they're visual collections, to them it's the image that's worthwhile. Copyright is such an issue they are, rightly, very wary of putting even a thumbnail on their website.

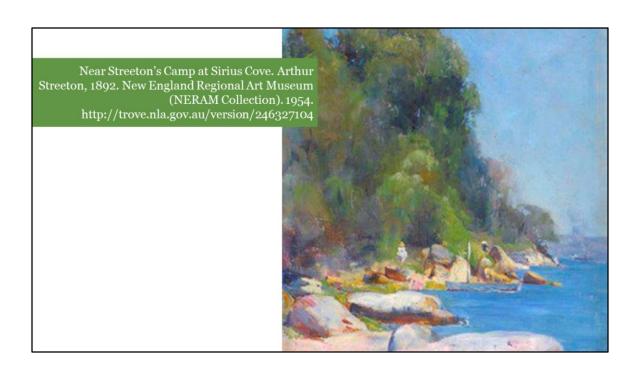


In fact some galleries flat out can't use visual images to promote visual content.

Which is why it was great for us to come along, from the Library sector, and say "if you can't show it - describe it! That's fine - Text is something! Letting people, letting the *public*, know it exists is really important even without the image" – that was a different message that galleries hadn't necessarily been hearing from us before. "Let us help, let us tell people what's in your wonderful store rooms, even if you can't show them." Making the metadata more widely available will help people realise your gallery has a key piece of their research.

It was great for *us* too, to have such similar conversations with different galleries and hear that copyright is such a hurdle. It was something we probably hadn't understood well enough before. When we talk Open Access to galleries they're not worried about fostering re-use, they're worried about the step before that – pure discovery. When we took that step back, then we started finding out – hey – they have metadata systems that are compatible with Trove. Some of them *already* output a form of Dublin Core, it's practically Trove-ready. That was a nice surprise. But as visual organisations they'd assumed that since they can't show the image thumbnail it's not really worthwhile being in Trove.

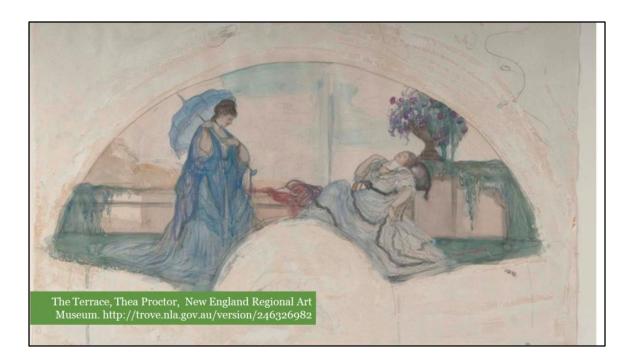
We hadn't done a good enough job of communicating that a textual description is worthwhile. So it was great to have the Roadshow as an opportunity for people to ask their question out loud, and have us confirm on the spot that yes, text was good enough. The systems are already there, it's just the people and relationships that weren't. The Library world has decades worth of standards implementation. We need to start working more with the galleries to get standards that suits us both and talk about how important the discovery side of things is.



As a direct result of the Trove Roadshow held in Armidale, the New England Regional Art Museum (NERAM) were the fourth gallery to join Trove as a content partner. They have added two collections: The Hinton Library with 3,230 records and the Art collection with 984 art works.

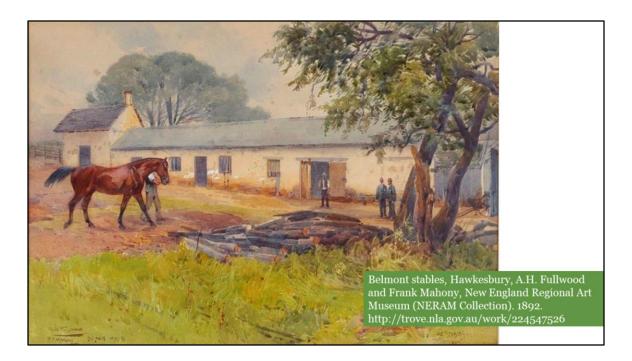
The calibre of their collection is outstanding – it includes Margaret Olley, Tom Roberts, Margaret Preston, Arthur Streeton, Norman Lindsay and Thea Proctor. Many of the works are out of copyright and clearly marked for easy re-use.

My favourites are the paintings done by artists visiting Curlew Camp in Sirius Cove (what is now Taronga Zoo in Sydney).



Being able to have those casual conversations revealed that the art and research collections aren't all galleries have to share. They have *great* biographical content on the artists in their collections.

This is stuff their curators have written that is all their own content and ripe for sharing. Trove's People zone already brings together biographies and Authority records from about 40 Australian sources. Knowing that these great gallery biography collections exists opens up potential for another type of collaboration we hadn't considered. That is adding much richer biographical information and expanding the Australian people discoverable in Trove.



The other really good thing we picked up on the Roadshow was the understanding of what makes galleries tick.

In regional areas they were really explicit – it's people through the door. Proving to the city council that school children are coming in and learning. Proving that their collection being accessible has influenced a member of the town to go on and become a successful artist. Not the same measures Trove partners are usually after – like click throughs to websites, re-use of their material, acknowledgement in research papers and publications.

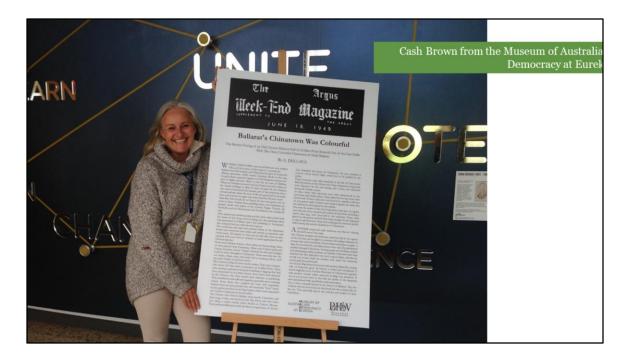
Learning all this means we can approach galleries differently now, and think about Trove's future development with their different needs in mind.



Historical Societies and small museums were also very well represented. This is John Pocknoll from the Molong Historical Museum at the Orange Roadshow. Historical Societies have a different interpretation of open access again. These organisations are heavily volunteer run. Many of those involved have not had lives as information professionals or curators. Even the word "Metadata" puts them off.

We were careful not to stress metadata standards and open access indicators and licences. We talked about the bare minimum of data they needed to give us, and how important discovery is. That even just a title could be so valuable. Historical societies are big Trove users as well as partners in content and digitisation. They're often doing the research to determine the provenance of items in their collection before they make them available online. They use Trove Newspapers, they're looking in the collections of other Trove partners, they're seeking out references in the Trove biographical zone. Then once they've finished researching the item, they're recording that in their own collection management systems.

We heard over and over again how these organisations are full of passionate people with almost no resourcing, and how they're making it work. As heavy users of Trove, they're also really keen to get their content into Trove so others can find it. But they have legitimate concerns about even discovery of their items. It's not the same as the galleries and copyright. Problems like antique dealers finding they have something valuable and making trips out to hassle the person staffing the desk in their volunteer museum. They worry that they're inviting thieves to an unsecure premises. They care so much about the collection that they want it to be properly and completely documented before they put a whiff of its existence online. Once we'd talked about how to mitigate some of those risks, then they were keen for the public to find their items and discover the rich history of their local areas. They're keen to pass on their passion about local stories. However sales of copies of images is one of their only income streams. They're keen to up their profile and do more of these sales. For a historical society "Open access" it not "full open slather CC BY licences" or even marking items appropriately out of copyright. They see open access as mainly "increased discovery, so we can sell you a high res copy."

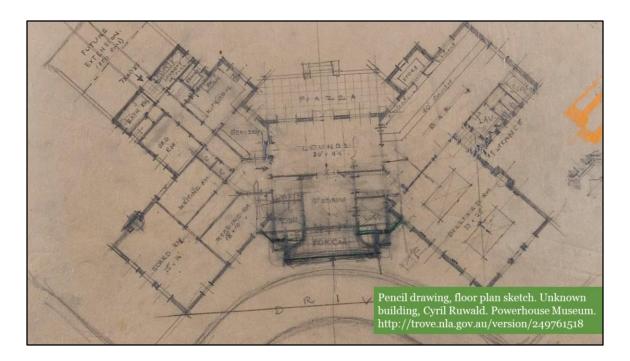


Thanks to some long standing partners like Museum Victoria and Victorian Collections we'd been doing a little better with the Museum sector prior to the Roadshow. This is Cash Brown from the Museum of Australian Democracy At Eureka (MADE) – in Ballarat. She's showing off the opening to their current exhibition on the Chinese in Ballarat. Does it look familiar?

It's a newspaper article she found on Trove while researching the exhibition and looking for ways to bring the story of the  $19^{\mbox{th}}$  century to visitors in the Museum today. So – like historical societies – museums are using newspapers to do their own research on collection items and exhibitions.

Big takeaway from the Roadshow – outside of libraries Trove is actually really important as a professional research tool and there is a cycle whereby museums, historical societies and even galleries are using Trove to better describe and understand their collections. That information then comes back into Trove.

But then, like galleries, people through the door is really important to museums.

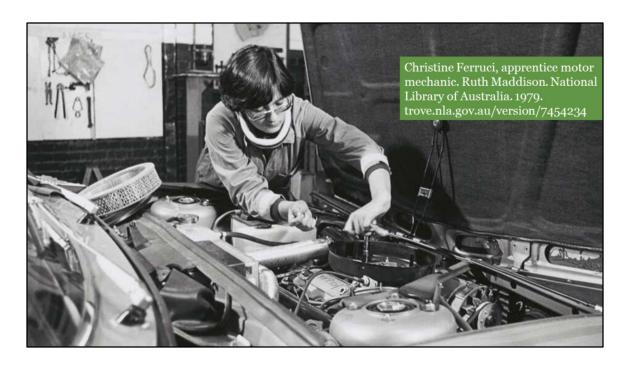


Out of all the sectors, Museums probably have the best representation in Trove after Libraries. Sectoral Organisation at a higher level means there's more training and awareness. There is some use of creative commons licences, and state-based initiatives to digitise collections and make them available online. So in that sector, we are talking about open access in the way Libraries do.

However from our cursory conversations at the Roadshows, its nowhere near the conversations that are happening around, say, scholarly communication and data sets that are focusing a lot of strategic effort on lengths of embargo dates and open licences for re-use.

Now they're just a few examples and there are variations across all sectors, but there were commonalities. A desire for increased discovery. More traffic to their collection, whether through the doors or through reproduction sales. A really baseline common language of Dublin Core, across all the sectors, for descriptive metadata (even when a volunteer at a historical society has no idea what that is, they can understand title and date). The desire to get more locally relevant publications digitised into Trove.

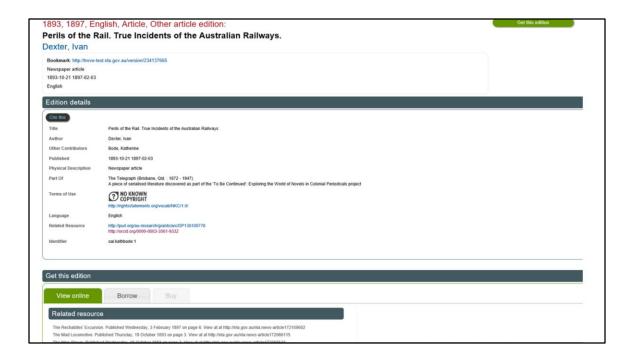
And one of the common most things we heard across all attendees is that people who manage collections, are using Trove for better understanding those collections. They get that Trove is the place where you can do research across lots of organisations and just focus on your area of interest. That users can find answers. And they want their collection to have a presence in Trove so they can capture that user interest, whether it's through a content partnership or a digitization partnership.



The last type of relatively recent partnership I'm going to talk about are with academics. Academic research outputs are a really important part of the cycle of improvement.

A project that produces enhanced data can feed that back into the original system, improving discovery for the general public, and powering the next generation of research.

It can also enhance the visibility of a researcher's work.



Hilary mentioned Dr Kath Bode's Literature project earlier.

As a result of her research Dr Bode has a corpus of enhanced Trove data – new works of Australian literature. To get this back into Trove, our harvester will treat Dr Bode's database like any other cultural heritage or research collection. It will extract Dr Bode's data, normalise that data and transform it into Trove's version of Dublin Core, that will then be ingested back into Trove. Into records that look like this.

Where any member of the public can find and re-use it. And any Library can take those records out of Trove, and load them to their own catalogues with the links to all the free and online chapters. Putting her work into Trove like this means the next generation of research can be conducted on *her* research, because now those records will be available in the Trove API.

A new kind of partnership for Trove – reaching out to researchers not just as consumers, but as data creators and curators.



And this is the exciting part, as people interpret, curate, discover and create with Trove, adding more data, creating new perspectives and then sharing them with others.

half out and still ebbing.
Since he had flown over her earlier in the day Merino had developed a slight list to starboard and she was broadside on to the beach.

slight to moderate seas, but

RESEARCH WILL BE EASIER, Examiner, 1952. http://nla.gov.au/nla.news-article52927529

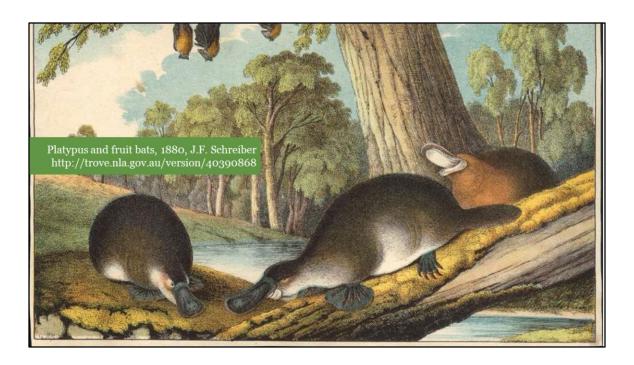
she had passed yesterday and conditions should moderate today. Mr. Bahr said.

## RESEARCH WILL BE EASIER

STRASBOURG (Reuter). — European inventors will find their paths of research made easier if measures drafted within the

One of the joys of working with Trove is hearing some of the stories of how people have been using to Trove for their research, uncovering information, asking new questions and assembling new meaning. Some of these stories appear on our Trove blog – and make a great read. And we really encourage researchers to share their stories with us in this way.

As we went on the Roadshow, we learned about many of the ways researchers, organisations and individuals are using Trove either as part of researching the places we were visiting or in the course of conversing with those we met with. Here's just a couple of snapshots of what researchers are doing with Trove:



Trove has assisted new research into platypus populations as part of efforts to halt the decline of the iconic Australian animal.

Ph.D. candidate Tahneal Hawke from the Centre for Ecosystem Science at the University of NSW studied thousands of newspaper articles from the mid-1800s to the 1950s to determine whether there were any historic changes in platypus distribution. She said platypus was distributed from Cooktown to Tasmania but there was little known about where they occurred in the past and in what numbers. There were many accounts in the newspapers of accidental captures, shootings and sightings, which provided river and catchment locations but the reports also, unexpectedly, revealed numbers.

Ms Hawke extracted the locational and numerical data from the articles and is about to analyse the results. She hopes the Trove data can pinpoint rivers where platypuses were reported and hopefully determine more localised extinctions. As well as providing the unexpected numerical data, Trove also told the story of how attitudes changed towards the platypus over time – from being a pest and hunted for its fur to being a unique Australian animal worthy of scientific investigation, protection and conservation. She said this intergenerational change in attitude toward the platypus had not been recorded before.

herefore, would be gratified if her of Commerce, in addition to inancial sesistance, would, at the e, endeavour to create a more ommercial education. The extenmmercial education is universally as a necessary part of every ppire's wasted wealth and an eseapon in competition with other In England the need has been and great work is being orbeing found money in large endowment sums. o finance the proposed alterations ploma course, and to establish a commerce, the raising of about an endowment is necessary. ber of Commerce is appealing to regarding to what extent they ed to assist in raising the neceswment; if they are prepared to e or more diploma students; and eference to applicants holding the Diploma of Commerce. The Diploma of Commerce. the University also wishes to as-what extent, if any, there is be a desire on the part of emacquire a knowledge of the Japa-

The speaker later explained that his visit to Brisbane had been to inaugurate the first practical union of Methodist and Presbyterian Church schools in Australia. Why should they, he asked, not anticipate union in other directions? It was going to come. (Hear, hear.) There was no difficulty about doctrine, and the Presbyterians. Congregationalists, and Methodists had now evolved a scheme which would go through successfully.

## INFLUENZA RAMPANT.

A few weeks ago cable messages from England announced the fact that influenza in a somewhat violent form was rampant in England. The news was not surprising, because many existing conditions in the Motherland at present tend to reduce the vitality of its residents. They are living under high mental pressure, their food supplies are greatly diminished, and their powers of resistance against attacks of illness are consequently substituted. The "flu" has arrived and has mowed people down dreds during the past few we business houses have had to carry on with depleted staffs, and in one firm the number

merino wethers on account of lina Pastoral Comfany, for 37/4, and 49 hoggets at 30/ interests of Mr. J. Harkness choice new season's lambs of at 27/ a head. More than 1 offered the trade. Porkers met with brisk competition were higher. Backfatters ecvered from the low prices weeks ago, and were unequimand. Calves were again of vealers realizing satisfactory a buoyant market.

FIXED PRICES TO MELBOURNE

The Minister for Price Massey Greene) has announce recommendation of the As Prices Commissioner (Mr. investigated the meat prices South Wales, he had decided announced for the Assertion of the

INFLUENZA RAMPANT. Observer, 1918. http://nla.gov.au/nla.news-article164161310

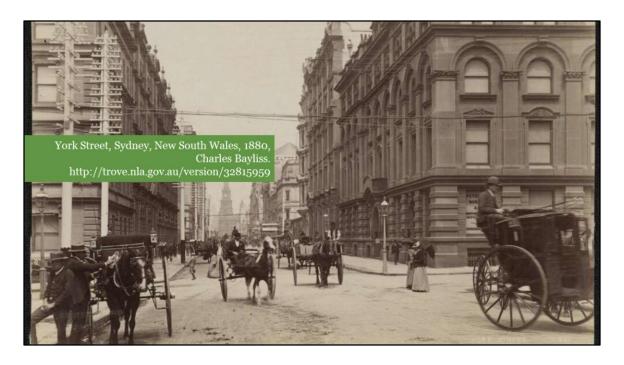
At a meeting of the Victor

Trove has been used to study the role of nurses in the Spanish flu epidemic of 1918-19 in South Australia.

Lecturer in nursing at Flinders University, Dr Mayumi Kako investigated the extent of the outbreak in SA, its effect on the nursing profession and impact on public health management. While archival records provided the raw data on the number of people who contracted the flu and the spread of the epidemic, Trove's digital newspapers helped her to understand what happened in a wider context and how nurses in particular responded to the crisis.

She said the newspaper articles revealed how nurses were mobilised, how they worked in local hospitals and the flu's impact on the workforce. Trove put a human face on the numbers. By using the search keywords 'Spanish flu 1918' and then selecting relevant SA newspapers she was able to read articles describing nurses in their work, those who themselves contracted flu and died, and local responses to the epidemic.

Not only was it a paperless process but the ready access to primary sources saved time and energy compared with pre-Trove research. She was also able to make interstate inquiries without having to travel. She found that the epidemic spurred the expansion of nursing and public health measures such as mandatory reporting of flu, quarantine and control measures, and greater community readiness.



Trove helped Dr Cath Bishop trace the lives of the entrepreneurial businesswomen of colonial Sydney who earned their living in a variety of enterprises. Her book, *Minding Her Own Business: Colonial Businesswomen in Sydney* (NewSouth Publishing 2015) would not have been possible without Trove.

Dr Bishop's research corrects the preconception that colonial women were solely homemakers, servants or prostitutes. She found that businesses established by women were not ephemeral but lasted through marriages, and could even be the mainstay of family income. During her research she found milliners, dressmakers, ironmongers and booksellers; publicans and boarding-house keepers as well as butchers and taxidermists.

Dr Bishop was able to search Trove to track the movements of women as they married and relocated. A milliner named Miss Smith in Pitt Street in 1845 became a Mrs Brown in George Street in 1850 and a Mrs Jones in 1860. Trove also helped her trace women beyond Sydney to other Australian colonies and to New Zealand, and this enabled her to write about the mobility of women in the colonies.

Dr Bishop said that Trove enabled her to juggle study and parental responsibilities: 'I pretty much did my Ph.D. on my laptop in my living room.' Her book was awarded the 2016 Ashurst Business Literature Prize, which aims to encourage literary commentary on Australian business and financial affairs.

(Dr Cath Bishop is a research affiliate with the University of Sydney and Australian Religious History Fellow at the State Library of New South Wales.)

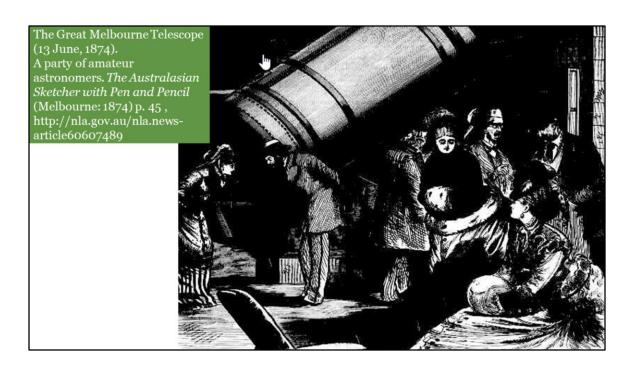


Trove sheds light on parenting and schooling

Trove helped Dr Helen Proctor and Dr Heather Weaver to research attitudes into parenting and schooling in Australia. They wrote an article, 'Creating an educational home: mothering for schooling in the Australian Women's Weekly 1943-1960' late last year which would not have been possible without the digitised *Australian Women's Weekly* on Trove.

Inspired by what they discovered and the availability of the digitised *Canberra Times* on Trove, Proctor and Weaver have expanded their research to include research into attitudes towards education in the 1970s.

Dr Proctor and Dr Weaver are at the Faculty of Education and Social Work at the University of Sydney.



Trove is helping researchers and volunteers to restore the Great Melbourne Telescope. Museums Victoria, the Astronomical Society of Victoria and Royal Botanic Gardens Victoria have joined forces to restore to working order this, one of the largest telescopes in the world in the 19th century, and the largest in the southern hemisphere.

Built at Melbourne Observatory in 1869, the telescope was modified and relocated to Canberra in 1944, but heavily damaged in the 2003 Canberra bushfires. Trove has helped restoration of the telescope by providing photographs from different perspectives and newspaper reports that included a lot of technical detail and information about materials that were used to construct the telescope.

Trove also enriched restorers' knowledge about the construction of the telescope, how it got to Melbourne and how it was re-assembled. The contemporary accounts on Trove revealed how the public received the telescope, providing a lot more context about how it was viewed in that time.



Treasure Trove (21 September, 1936). *The Argus*. (Melbourne: 1936) p. 18, http://nla.gov.au/nla.news-article11917278

Collaborations, which create context and build stories, lie at the heart of Trove. We really encourage researchers to share their stories with us in this way.

We are also always very keen to get feedback on how we can improve or what sort of services you want out of Trove.