# NEVER STOP

Changing Roles in Support of Innovation and Research



**Brian Flaherty** 

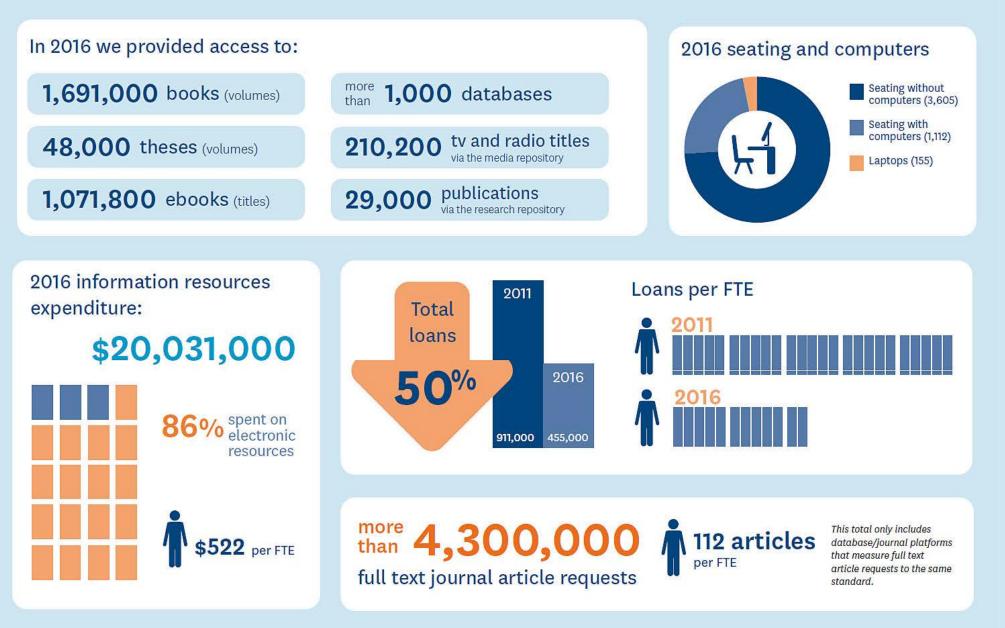
# be restless



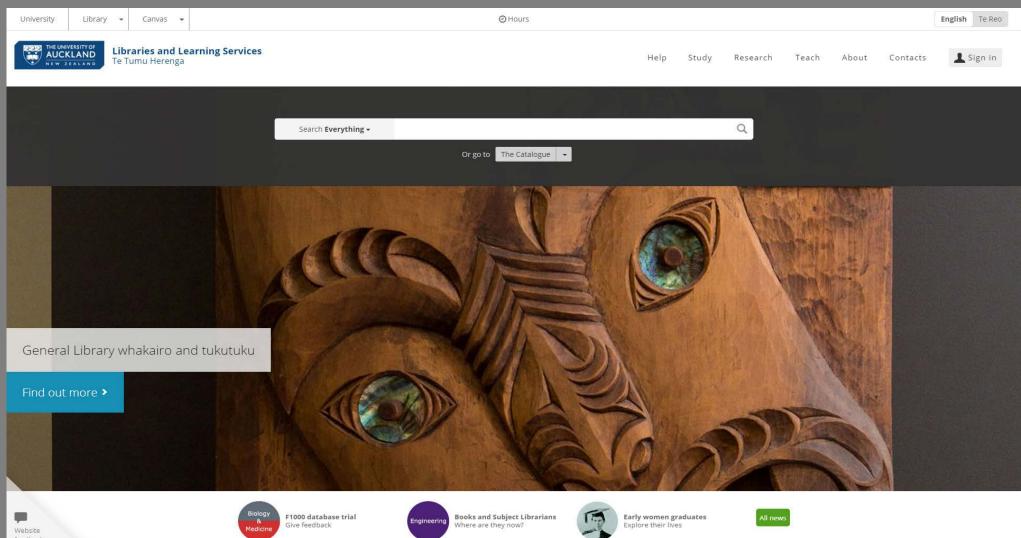
# CURRENT STATE

THE UNIVERSITY OF AUCKLAND

### LIBRARIES and LEARNING SERVICES 2016

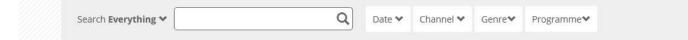


## DISCOVERY



### Over 100,000 hours of Television and Radio Content

including the Chapman Archive



### Trending Content



Sheilas: 28 Years On Saturday 4 September 2004



Inside New Zealand Tuesday 24 June 1997



Te Heeteri Friday 20 September 1996



Prometheus Sunday 28 September 2014



Tangiwai - A Love Story Sunday 14 August 2011



Mt. Zion Friday 6 February 2015



Last Week Tonight with John Oliver Monday 2 November 2015



The Jono Project Friday 7 October 2011



The Daily Show with Trevor Noah Thursday 29 October 2015



Fear the Walking Dead Thursday 22 October 2015

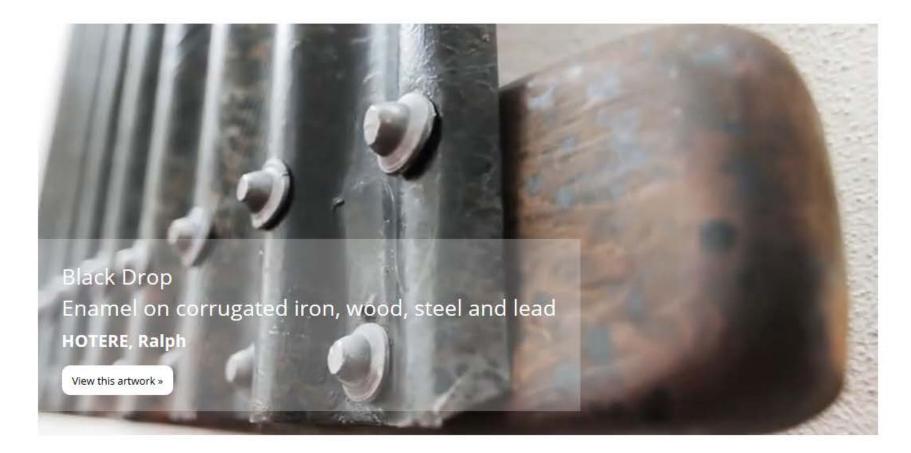






Home Artists Art Type Essays 🔍 Search





### THE ART

**More than 1200** paintings, prints, photographs, sculptures and video on permanent display



### THE ARTISTS

Since 1966 the collection has acquired **major works** by significant New Zealand artists, including Gretchen Albrecht, Don Binney, Ralph Hotere, and Colin McCahon

### Browse Artists

### TEACHING & RESEARCH

An **invaluable resource** for teaching, learning and research

 $\overline{\mathbf{v}}$ 

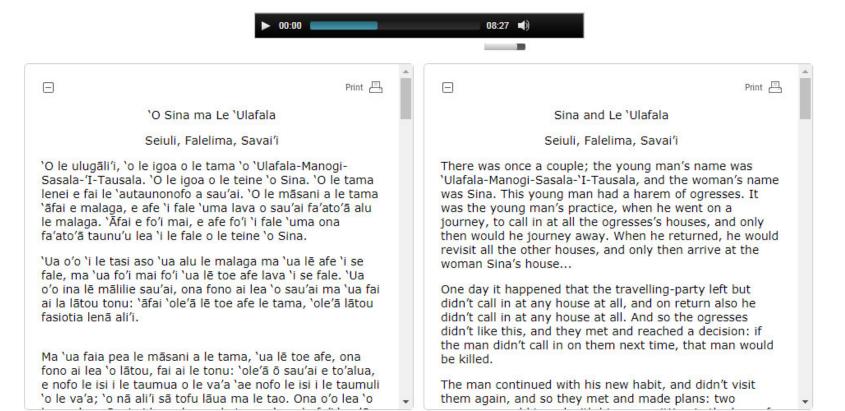
Nore about the collection -



### 'O Sina ma Le `Ulafala (Sina and Le `Ulafala)

### Told by: Seiuli

### From: Falelima, Savai'i



### six pack | authors | about us | events | what's new | home



A collection of recordings by poets working in Aotearoa New Zealand and the Pacific region













Serie Barford

Daren Kamali Kelly Malone Ria Masae

Richard von Sturmer

Ian Wedde













Janet Charman **Owen Connors** 

Andrew Johnston

Bill Manhire

Chris Price















Ruby Porter

Lisa Samuels

Chris Tse



#02









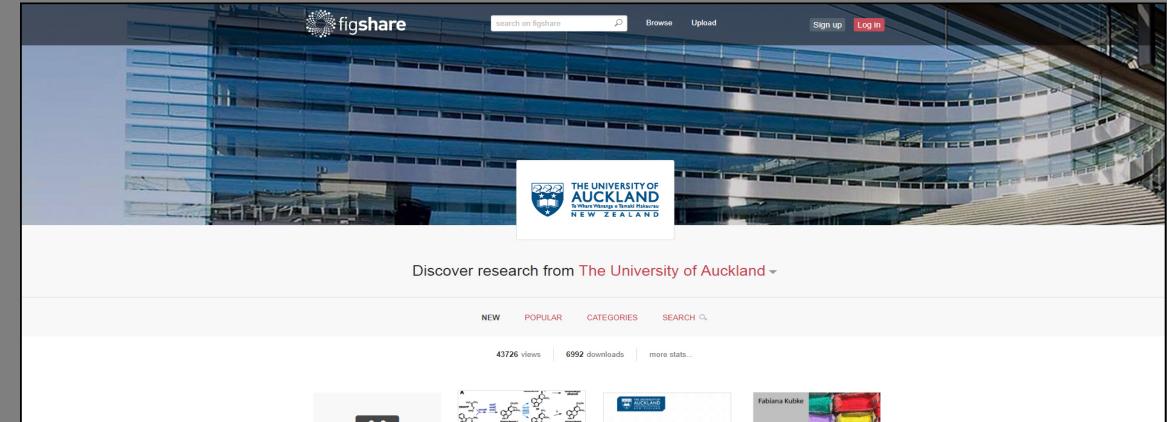


\*

# **OPPORTUNITIES**

Are we / should we be in the business of....?

## DATA MANAGEMENT







Ergot alkaloids and summary of biosynthesis pathway. Christopher L. Schardl v 02/03/2013



MicroRNA research

Nicole Cloonan

Disclaimens: • CCANZ • PLoS ONE • Marsden Fund



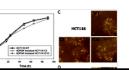
05/07/2017 M Fabiana Kubke

Remixing Aotearoa M Fabiana Kubke 27/10/2016

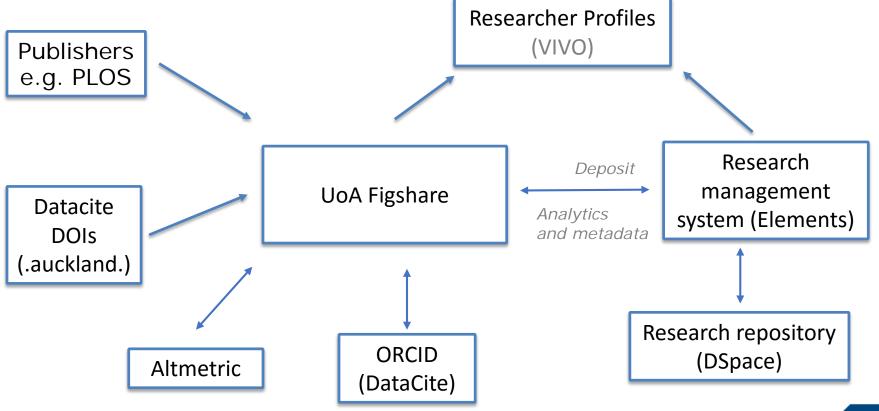








### UOA RESEARCH ECOSYSTEM: data repository centric







 $\underline{University \ Home} \ \rightarrow \ \underline{Library} \ \rightarrow \ ResearchSpace \ Home}$ 

### University of Auckland Research Repository - ResearchSpace

Deposit your PhD thesis online

Deposit your Masters thesis online

University staff. Update your Research Outputs and deposit full text content using the Research Outputs system.

### **Communities in ResearchSpace**

Select a community to browse its collections.

- A1 Research Outputs Online [21728]
- A2 University of Auckland Digital Doctoral Theses [4724]
- A3 University of Auckland Digital Masters Theses [4179]
- · A4 Dataset Archive [40]
- A5 Technical Report Series [1154]
- I1 Auckland Bioengineering Institute [6]
- X1 Deposit.Library [1479]

Show Statistical Information

### Search ResearchSpace

Enter some text in the box below to search.



### **Recently Added**



Title: Submission to the New Zealand Productivity Commission 'More effective social services inquiry' Author: Thomas, Steven Date: (2014-12-02)



Title: Change prediction using interface data Author: Hamraz, B; Hisarciklilar, O; Rahmani, K; Wynn, David; Thomson, V; Clarkson, PJ

Share		
	C SHARE	<b>- 1</b> 92 <b>-</b>
Search	n ResearchS	pace
		1.00
Advanc	ed Search	
Advanc	ed Search	
Advanc Brows		

### Discover

#### Group

ABI Associates (899) ABI (8) Academic & Research Suppt Svcs (113) Academic Administration (216) Academic Records (1) Academic Services Admin (2) Academic Services (268) Accommodation Halls (17) Accounting & Finance (154) ACS Research Centre (347) All Auto PBRF Users (5) Anaesthesiology (223) Anatomy and Medical Imaging (378) Anatomy wth Radiology Division (8) Anthropology (260) ... View More

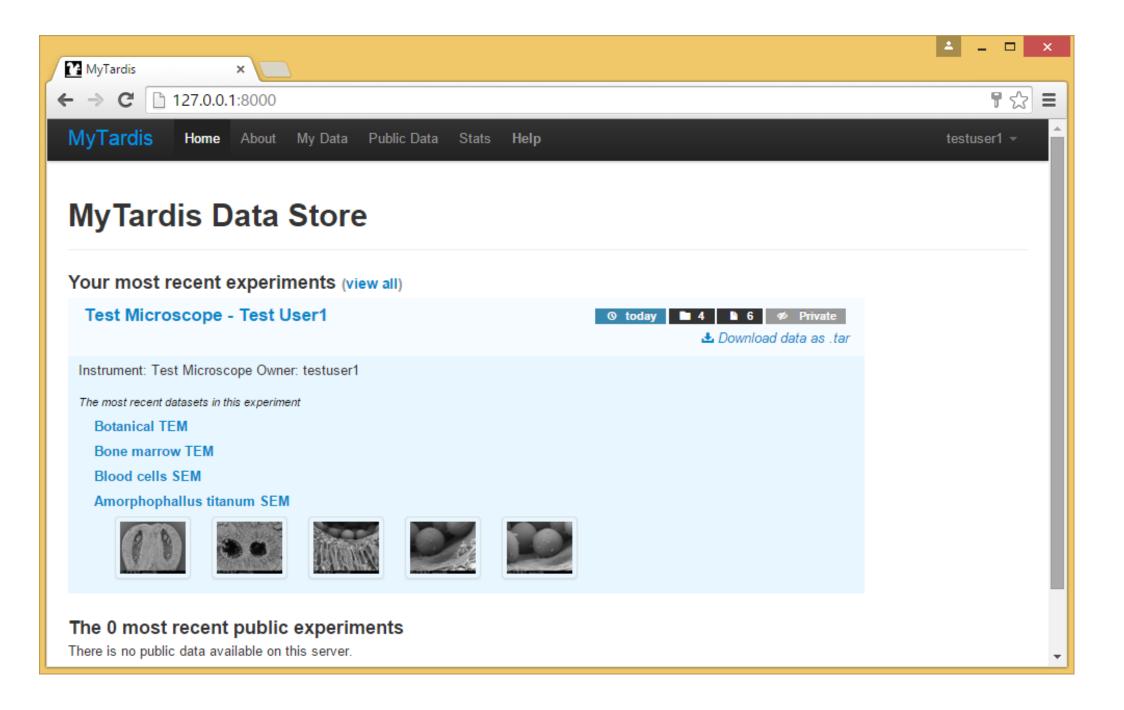
### Content Type

Abstract (438) Artefact (27) Article in Press (1) Article (13067) article (13) Book (tom (1485) Login

# Identifiers









### What's inside?

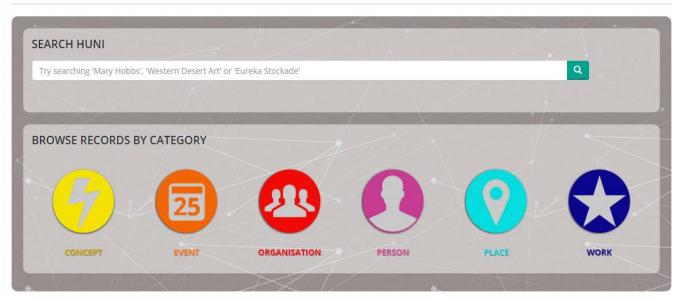
**HuNI** (Humanities Networked Infrastructure) combines data from many Australian cultural websites into the biggest humanities and creative arts database ever assembled in Australia. HuNI data covers all disciplines and brings together information about the people, works, events, organisations and places that make up the country's rich cultural landscape.

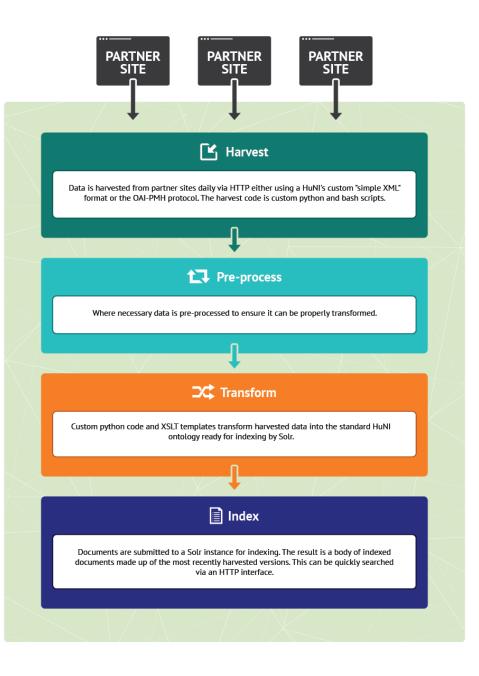
### Researcher Perspective (video)

### What can I do with the HuNI data?

- Search and browse
- Build your own private or public virtual collections
- View **Scollections** built by other I luNI users
- Make new *S* links between records and follow existing trails
- Export, publish and share your findings







details.

Shift-Enter

Ctrl-Shift-Q

Ctrl-Shift-N

Ctrl-Q

Ctrl-O

Cmd-S

Execute Cell

Interrupt Kernel

New R console

Switch Kernel

Close all files

Line Numbers

Match Brackets

EDITOR

Line Wrap

Save File

Vim Mode

Close All

Vim Mode Off

**Close Document** 

New Notebook

New Text File

**Revert Document** 

About JupyterLab

**IPython Reference** 

JupyterLab Launcher

Markdown Reference

Matplotlib Reference

Notebook Tutorial

Numpy Reference

Pandas Reference

Python Reference

Scipy Reference

SymPy Reference

Reset Zoom

Zoom In

Zoom Out

IMAGE WIDGET

Scipy Lecture Notes

Save Document

HELP

FAQ

FILE OPERATIONS

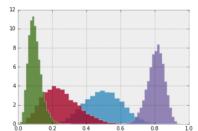
New Julia 0.4.5 console

New Python 2 console

New Python 3 console

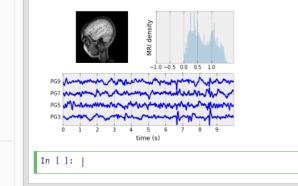
object? -> Details about 'object', use 'object??' for extra

### return plot\_beta\_hist(10, 10) plot\_beta\_hist(4, 12) plot\_beta\_hist(50, 12) plot\_beta\_hist(6, 55)



In [2]: %run ~/Downloads/mri\_with\_eeg.py

loading eeg /Users/fperez/usr/conda/lib/python3.5/site-packages/mat
plotlib/mpl-data/sample\_data/eeg.dat



```
Q ☆ 😎 脑 👜 💭 🖧 🔇 🕣 🕂 🔍 📣 🕞
Launcher
           x mri_with_eeg.py x
 1 #!/usr/bin/env python
 2
 3 .....
 4 This now uses the imshow command instead of pcolor which *is much
 5 faster*
 6 .....
 7 from __future__ import division, print_function
 9 import numpy as np
10
11 from matplotlib.pyplot import *
12 from matplotlib.collections import LineCollection
13 import matplotlib.cbook as cbook
14 # I use if 1 to break up the different regions of code visually
15
16 if 1: # load the data
17
      # data are 256x256 16 bit integers
18
       dfile = cbook.get_sample_data('s1045.ima.gz')
19
       im = np.fromstring(dfile.read(), np.uint16).astype(float)
20
       im.shape = 256, 256
21
22 if 1: # plot the MRI in pcolor
23
       subplot(221)
24
       imshow(im, cmap=cm.gray)
25
       axis('off')
26
27 if 1: # plot the histogram of MRI intensity
28
       subplot(222)
29
       im = np.ravel(im)
       im = im[np.nonzero(im)] # ignore the background
30
31
       im = im/(2.0**15) \# normalize
32
       hist(im, 100)
33
       xticks([-1, -.5, 0, .5, 1])
34
       vticks([])
35
       xlabel('intensity')
36
       ylabel('MRI density')
37
38 if 1: # plot the EEG
      # load the data
39
40
41
       numSamples, numRows = 800, 4
42
       eegfile = cbook.get_sample_data('eeg.dat', asfileobj=False)
43
       print('loading eeg %s' % eegfile)
       data = np.fromstring(open(eegfile, 'rb').read(), float)
44
45
       data.shape = numSamples, numRows
46
       t = 10.0 * np.arange(numSamples, dtype=float)/numSamples
47
       ticklocs = []
48
       ax = subplot(212)
49
       xlim(0, 10)
50
       xticks(np.arange(10))
51
       dmin = data.min()
52
       dmax = data.max()
53
       dr = (dmax - dmin)*0.7 # Crowd them a bit.
54
       v0 = dmin
55
       y1 = (numRows - 1) * dr + dmax
56
       ylim(y0, y1)
57
58
       seqs = []
59
       for i in range(numRows):
60
```

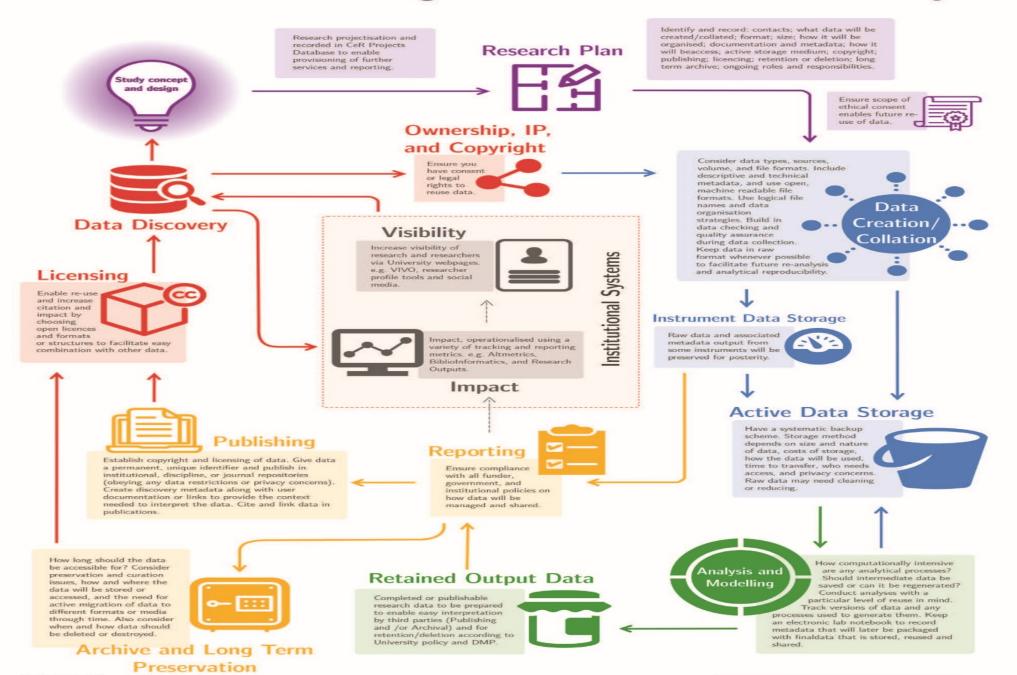
IPython

Ξ

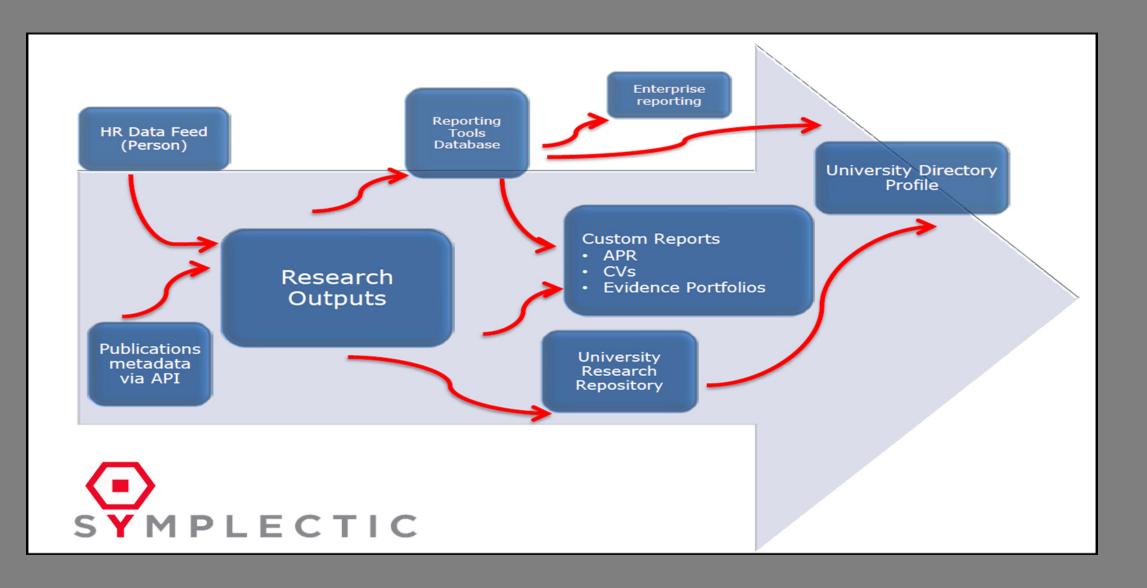
Ъ

ing

### Research data services organised around the research lifecycle



## **RESEARCH INFORMATION MANAGEMENT**





## Research Impact Reports

• BiblioInformatics self-service platform

Home Library Search Databases Services About Us Contact Us	My Library Account	Ask a Librarian
THE UNIVERSITY OF AUCKLAND LIERARLIES AND LEARNING SERVICES	Quick links	~
University home » Library » BiblioInformatics Service » Impact report		
Research Outputs and Impact Snapshot Report beta		
Welcome back, Brian Flaherty.		×
1. Select reporting date range		
Reporting dates (2)       01/01/2001       - 21/10/2005       Last 10 years       Last 5 years       All years		

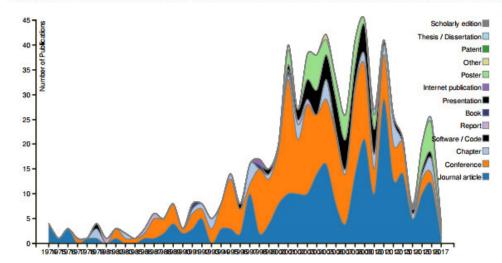
### 2. Run report



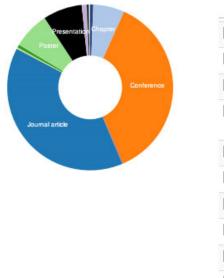


### Publications by year and type

This stacked area chart shows your publication totals over years, stacked by type. Total publications includes all publication types from all sources in Research Outputs.

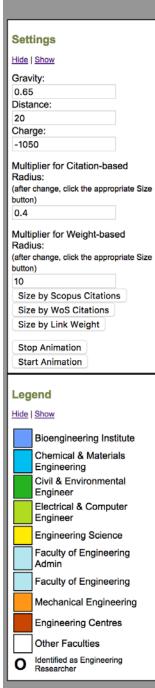


Publication type breakdown

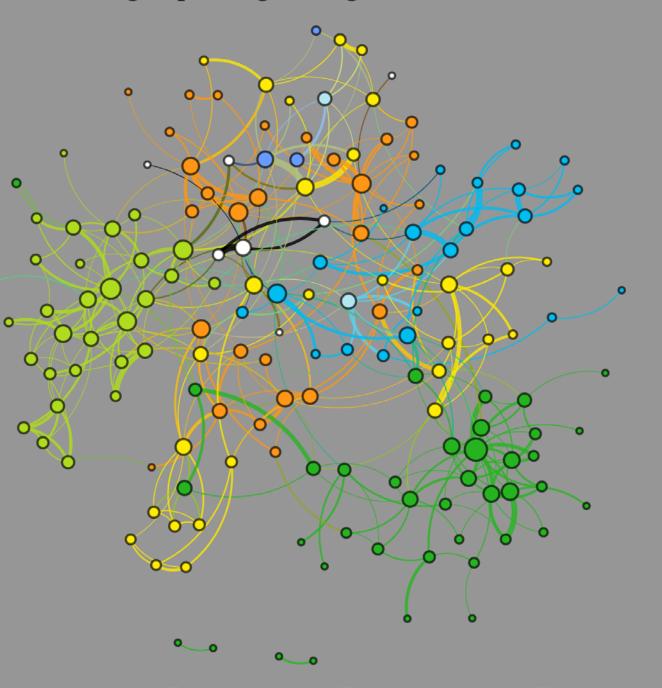


Publication type	Number
Book	4
Chapter	41
Conference	247
Internet publication	1
Journal article	262
Other	2
Patent/Trademark	4
Poster	48
Presentation	51
Report	6

### Collaborations within identified group of Engineering Researchers : 01/01/2007 - 31/12/2014



0



r Brian Flahe	rty	Edit profile	CV and Reports
	Mr Brian Flaherty	~	External profiles
	Export	×	ORCID
	Please choose a style	197	Co-authors 😡
blications Professiona	<ul> <li>Research Outputs Academic CV This CV lists publications and professional activities, and includes the long descriptions for legacy professional activities.</li> <li>New Zealand RS&amp;T CV</li> </ul>	7	
Professiona Publications	This template is the one you should use whenever you are required to submit a CV as pair of a research proposal to the Foundation for Research, Science and Technology (Foundation), the Health Research Council (HRC), or the Marsden Fund. This report is designed for editing in Microsoft Word.	rt 3	9 -
3	Specify a date range: If supplied, the export will only contain data relevant to the specified date range.		Wystan Curnow (1) Murray Edmond (3) Michele Leggott (3)
2	Start date: End date:		Selina Marsh (1) Lisa Samuels (1) Helen Sword (1)
1980 1985	Please choose a file format: •	I	Richard von Sturmer (1) Ian Wedde (1) Erin Carlston (1) Makyla Curtis (1)
Recent Favourites All	Download as PDF		Erena Shingade (1)
	t 2015 General Library, University of Auckland. 28 Aug 2015 (Performance) <u>Author URL</u>		Links
dmond M, Ho YW, Miller A, Pries Centre). 01 May 2015 (Internet p	st T, Rapatahana V, Toussaint S. <u>Six-pack sound #1</u> NZEPC (New Zealand Electronic Poetry ublication) <u>Author URL</u>		
		q	Find a colleague

There are no recent (2014 - 2017) professional activities to display. You might find some older professional activities on the "All" tab.

## **RESEARCHER PROFILES**

	THE UNIVERSITY OF AUCCULATION AUCCULATION NEW ZEALAND	VIVO	Index Log in Search	
ŀ	lome People Org	anizations Research Events		
	Contact Info	Hunter, Peter       Distinguished Professor         Positions       • Director - ABI, Bioengineering Institute         Peter Hunter completed his Engineering and Masters of Engineering degrees at the University of Auckland before undertaking his DPhil (PhD) in Physiology at the University of Oxford where he researched finite element modeling of ventricular mechanics.         Since then his major research interests have been around modelling human body using specially developed computational algorithms and biophysically based approach which incorporates the detailed anatoor         ch       Contact       View All	d an anatomically and	
	selected publica	ations		
	<u>Mechanisms u</u> <u>latitude ionos</u> <u>Whats left in la</u> <u>On modelling</u> <u>formulation.</u>	anguage Beyond the classical model. 2015 large deformations of heterogeneous biological tissues using a mixed	<u>the low-</u> d finite element	

# **VIVO Proof of Concept**







The purpose of the Performance-Based Research Fund (PBRF) is to ensure that excellent research in the tertiary education sector is encouraged and rewarded. This means **assessing** the research performance of tertiary education organisations (TEOs) and then **funding** them on the basis of their performance. Pure is an enterprise research management solution that aggregates an organization's research information from numerous internal and external sources onto a single platform and ensures the data that drives your strategic decisions is trusted, comprehensive and accessible in real time.

Pure can connect and group multiple forms of data.



### Reporting and Evaluation

With information consolidated on one platform, Pure simplifies reporting across all types of information. Once all your data is one place, it can be easily linked for running advanced reports that uncover insights, trends and strengths that support decision making across campus. Compare departments or people by publication output and impact, analyze how research equipment relates to grant data, understand which collaborations are the most valuable in terms of grant money or citations, and much more.

data into a comprehensive report is not an easy task. To accomplish this, the university introduced Elsevier's Pure as the research information system to manage and assess institutional activities."

Dr. Adam Tickell, Provost and Vice Principal, University of Birmingham

researchers, their expertise and their specialized equipment discoverable both internally and externally. By opening up researcher and departmental profiles to make them searchable, you are helping to build the foundation for strong collaboration networks both on campus and with other institutions. Strong networks and high visibility can make it easier for your researchers to secure grant money and can help attract high-caliber research partners - which can lead to "Pulling together university-wide higher citation rates.

"We have departments and colleges and also a lot of research centers some have official webpages but many don't. The portal gives us a platform on which to highlight the work each unit is doing. We've had a number of requests since launching

Jan Fransen, Service Lead for Researcher and Discovery Systems, University of Minnesota

feature their work."

the site from units that want to

With Pure, you make your

### National Assessments

Pure has custom modules that support National Assessments, including the Research Excellence Framework (REF) in the UK, the in the Netherlands, and the Higher Education Research Data in Research for Australia (ERA) in Australia. Pure modules are available from the governing bodies. Using these modules, our customers have streamlined the reporting process, allowing them to concentrate on presenting the

best possible face of the university. Pure can support National Assessments or similar exercises without a nation-specific module. Pure's evaluation capabilities allow you to create custom templates

that support local needs. "Pure played a vital role in our preparations for the UK Research Excellence Framework (REF),

through the visibility of information and a straightforward management of the returns process." Dr. Craig Young,

### Head of Researcher Enhancement University of Strathclyde, UK

### Faculty and Academic Activity Reporting

Understanding the complete picture of academic activity on campus can be a difficult and time-consuming process, yet it Standard Evaluation Protocol (SEP) is a critical aspect to the operations of a research intensive institution. These regular activity and Collection (HERDC) and Excellence performance reports have typically been tedious, involving the manual entry of data and working with updated as new guidance becomes multiple systems that use different data formats

> solution that automates and simplifies this process to help institutions get a better understanding of academic activity on campus including courses taught, research output, prizes won and grant milestones.

"Annual reviews, CVs for grant applications, end of year project reports and personal web pages, Pure makes it easy for our researchers to do

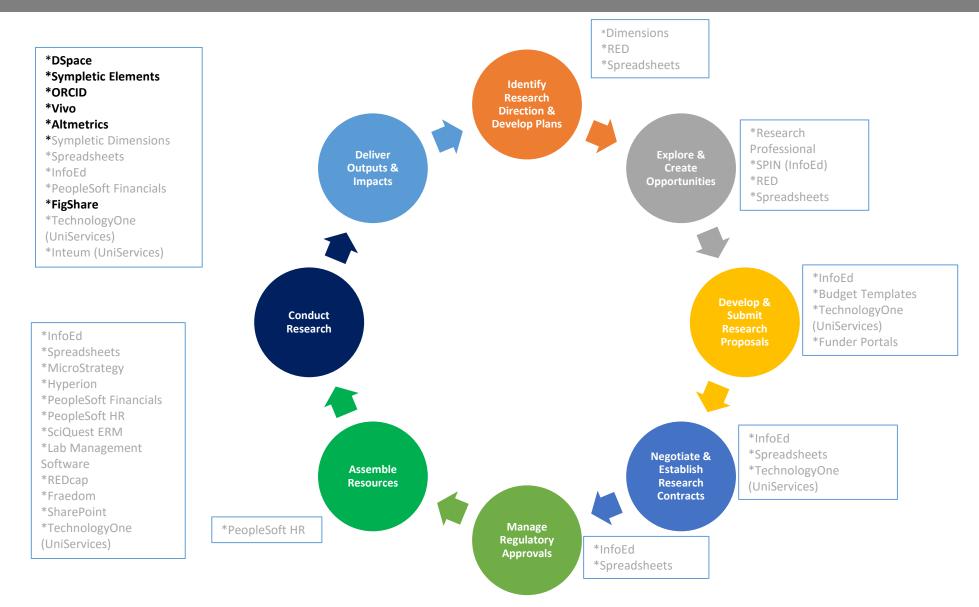
Dr. Emer McDougall, Research & Knowledge Exchange Operations Manager, University of Strathclyde

Pure provides a comprehensive

all of these things more efficiently."



### The Research Ecosystem: APPLICATIONS



Research services/ Life Cycle	Plan and Design	Create, Capture and Collect	Analyse and Interpret	Publish and Report	Discover and reuse
Compute	Advisory: plan and scoping consultancy	Research virtual machines (RVM)	NeSI, NeCTAR Cloud	Community portal/ Hub via NeCTAR or RVM	OpenStack/ NeCTAR shared libraries
Data	Data Management Plans (DMPs)	Instrument data capture service (MyTardis)	'Active' data sharing and collaboration (SeaFiles)	Publish data (Figshare), long-term preservation	(Discovery metadata)
Visualisation and analytics	Visualisation consulting and planning	Discovery and exploration tools InfoViz	Analytics, scientific computing, deep learning, SciViz	Group-based visualisation, collaboratory	Visualisation library
Training and community development	Research Hub PhD induction	Data Carpentry	Software Carpentry	Digital scholarship ResBaz, Bootcamp, etc	

# RESET

## LIBRARIES AND LEARNING SERVICES vision and strategy

Enabling researcher outcomes and success Enabling student outcomes and success

Delivering service excellence

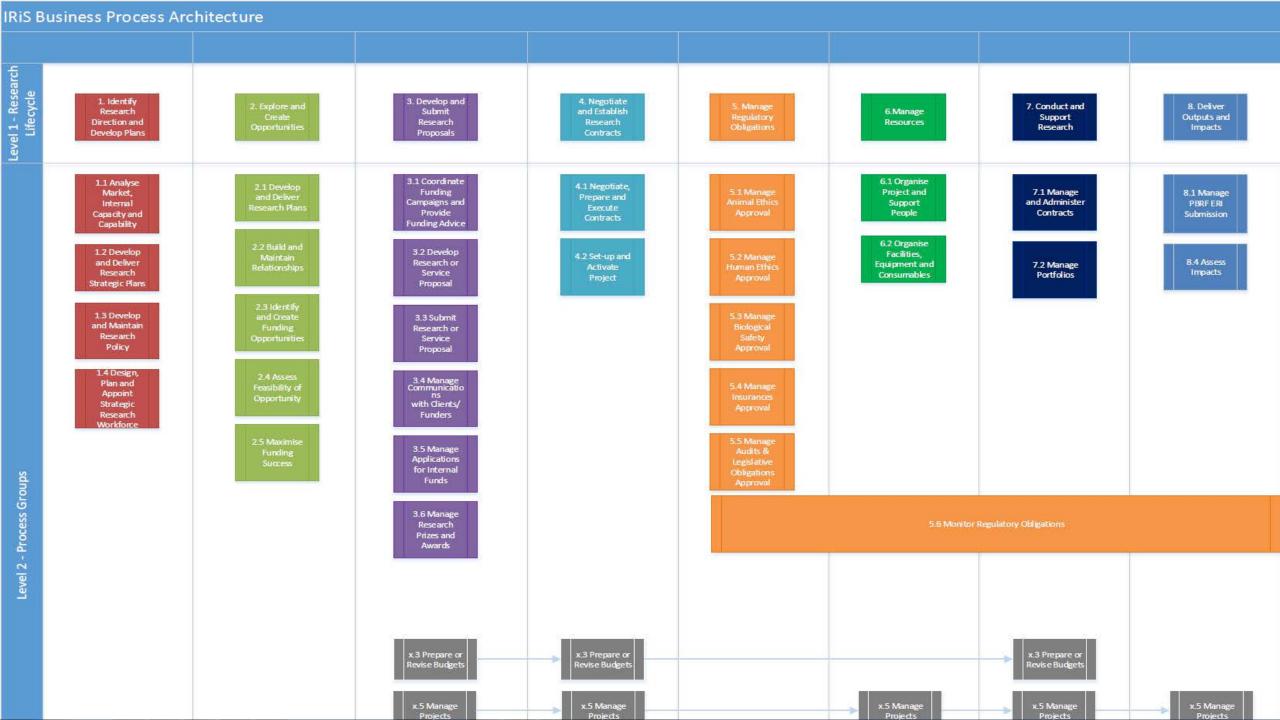
Relevant and fit for purpose resources and infrastructure scholarly collections, libraries and learning spaces, digital tools and infrastructure

Libraries and Learning Services capabilities and how we work

FUTURE TRAJECTORY Researcher outcomes and success



# NO (LIBRARY) IS AN ISLAND...



## Wrapping support around researchers



Researcher
Local operations and administrative support
Central administrative support
Research entity support

\*Researchers are involved in all stages of research activity



Guides

Policies

血

**Provide Feedback** 

Software

People

 $\odot$ 

Copyright © 2017. Centre for eResearch

Facilities & Spaces

m

Knowledge Articles &

Know-How

ORCID (Open Researcher and Contributor ID)

Launch

THE UNIVERSITY OF AUCKLAND AVER WARE DIMIN HARVYS NEW ZEALAND

Details

#### Go to research activity filters

Create, Collect & Capture	
Analyze & Interpret	
Publish & Report	

Disclaimer



## https://research-hub.cer.auckland.ac.nz/

#### Research Hub

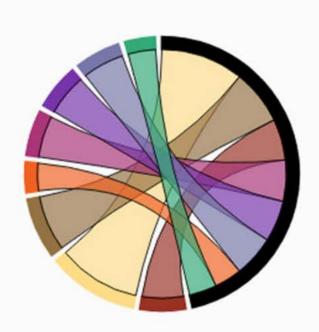
Services & Sup... - Q Search

Search Results > Resources > Research Outputs

**Research Outputs** 

A Home

- Q Search & Browse
- Provide Feedback
- About Us
- ጽ Contact Us



## Organisational units

Libraries and Learning Services

Research Outputs is the research outputs management system used by University staff and doctoral candidates to record their research publications and activities.

Publications and creative works in Research Outputs populate University Directory profiles, the University Research Repository, and administrative reports.

For information on access and general use of the Research Outputs system, please see Research Outputs support.

#### Cost

Research Outputs is free of charge to end users.

### Eligibility

Research Outputs is available to staff and doctoral candidates

#### Access requirements

Log in to Research Outputs using your University username and password.

### Considerations

Research Outputs is the place to record research publications and outputs.

## Additional information

Professional activities created before November 2015 are located in the Professional Activities Legacy Database.

The Research Outputs Academic CV is automatically uploaded to the Academic Development Performance Review in Career Tools for academic staff.

See also Research Outputs Information.

#### Help and support



## WINTER BOOTCAMP

University of Auckland 10 - 14 July 2017

Code - Data - Digital Research Skills

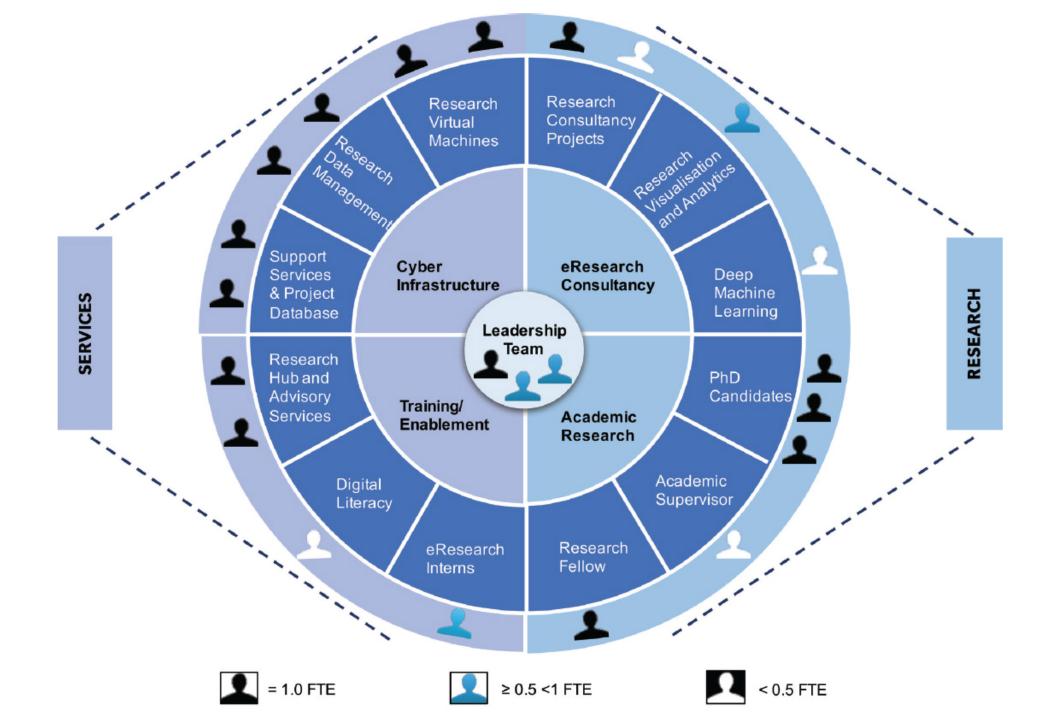


Winter Bootcamp is a week long training and education event co-ordinated by the Center for eResearch where you can up-skill in a whole host of topics related to digital research practice. Workshops and seminars range from two-day intensive and hands-on Software Carpentry programmes for general audiences, through to short informational or networking sessions. Browse the menu below to see what's on and register for sessions. Places are limited so don't delay.

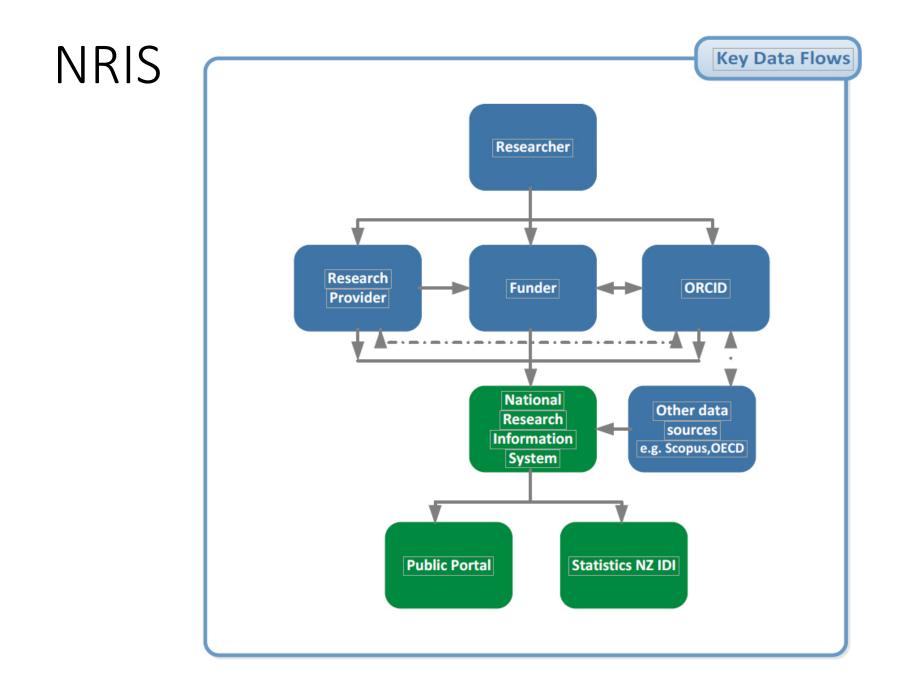
Workshop hosts include the Centre for eResearch, Libraries and Learning Services, CLeaR, the New Zealand eScience Infrastructure, Faculty of Science and Faculty of Medical and Health Sciences

Fri 14th July

WORKSHOPS AND SESSIONS				
Software Carpentry Mon - Tues 10 - 11th July	Presenting Research with Academic Posters Mon 10th July	Research Data Management Wed 12th July		
Introduction to Tidy Data and Data Cleaning with Open Refine Wed 12th July	Introduction to Deep Learning Wed 12th July	Online Presence Wed 12th July		
Mobile App Development for Research Wed 12th July	Introduction to OpenMP - Entry Level Parallelisation Wed 12th July	Free Up your Desktop! - Using Virtual Machines for Research Wed 12th July		
Introduction to MPI (Message Passing Interface) Wed 12th July	Social Media for Communicating Research and Building Impact Thurs 13th July	Referencing for Research. From Go to Whoa! Thurs 13th July		
LaTeX Part 1 Thurs 13th July	Digital Publishing on the Semantic Web Thurs 13th July	Three Things to Know Before Signing Away your Rights Thurs 13th July		
Maximise your Success - Guidance for Publishing with Springer Thurs 13th July	Prestigious or Predatory Publishers? How to Navigate the Shark-infested Waters of Modern Publishing Thurs 13th July	Intellectual Property Rights Thurs 13th July		
Open Access Licences Thurs 13th July	Intermediate R: Data Manipulation and Visualisation Thurs 13th July	Research Project Management Fri 14th July		
Hands-on Introduction to HPC using NeSI Fri 14th July	LaTeX Part 2 Fri 14th July	Introduction to User Experience Design Fri 14th July		
Advanced MPI (Message Passing Interface) - Tuning and Performance Analysis	Open Science and Commercialisation Fri 14th July			



Home Advanced Search Submit research		Browse by	
Welcome to nzresearch.org.nz Discover and access New Zealand's most comprehensive selection of research papers and related resources. This site include peer-reviewed and other research from universities, polytechnics, and research organisations Browse by type: Thesis Book Book item Book review Conference item Conference paper Creative work Dataset Journal article Moving image Patent Report Scholarly text Unclassified Working or discussion paper	throughout New Zealand. If you are an organisation that produces research material in New Zealand and would like to contribute to this service please get in touch. Browse by thesis type: <ul> <li><u>Doctoral</u></li> <li><u>Masters</u></li> <li><u>Undergraduate</u></li> </ul>	By Institution         By Author A-Z         By Year         Recent additions         Browse all recent records         University of Otago         The effect of an additional application of sealer during continuous wave of condensation obturation         University of Otago         The structure of GCR and CCR groupoid C*-algebras         University of Otago         Rainforest, Reef, and our Appetite for Beef: Communication for Sustainable Behaviour Change	
WASSEY UNIVERSITY TE KUNENGA KI PŪREHUROA Massey is a national university with a multi-campus character, and is New Zealand's pre-eminent distance education university. Its academic specialisations include: agriculture, veterinary and the life sciences; land, water and environmental studies; industrial innovation through engineering; design and the creative arts; business; Maori development; the social sciences; education; and nursing and public health. See <u>www.massey.ac.nz</u> for more information.	Featured research:         The ecological requirements of the New         Zealand falcon (Falco novaseelandiae) in         plantation forestry : a thesis presented in         partial fulfilment of the requirements for the         degree of Doctor of Philosophy in Zoology at         Massey University, Palmerston North, New         Zealand a         Seaton, Richard (2008)         Commercial pine plantations made up of exotic tree         species are increasingly recognised as habitats that         can contribute significantly to the conservation of         indigenous biodiversity in New		

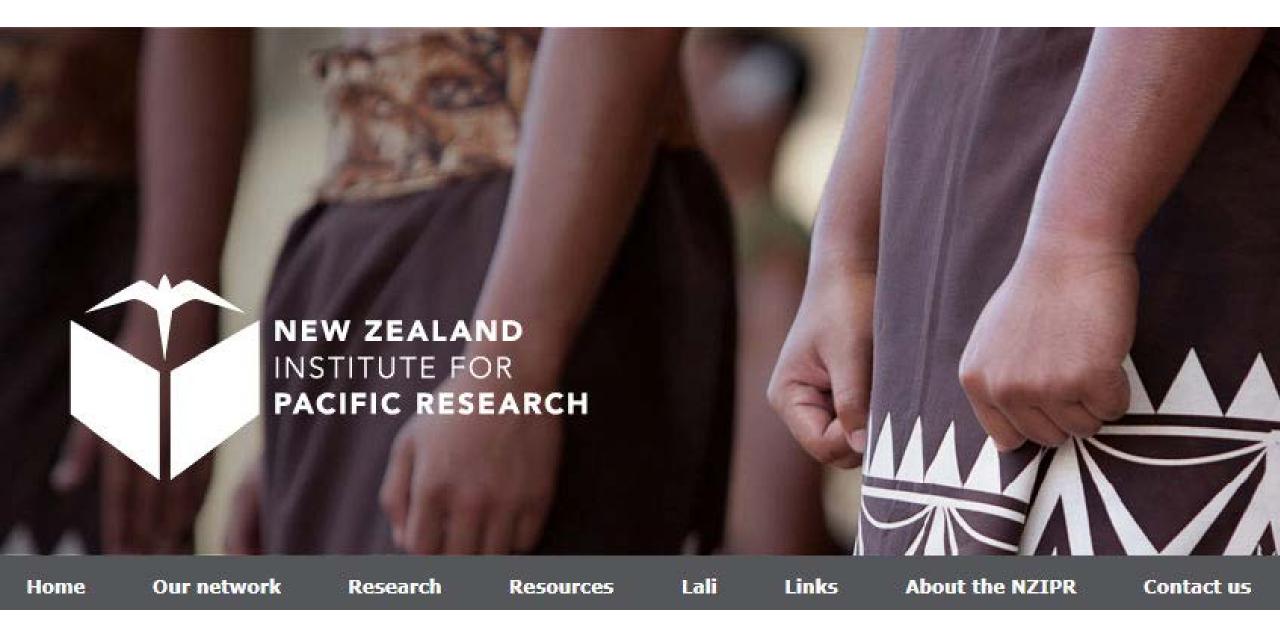


## CHALENGES



## **NEW SERVICES: INCUBATOR**

## PICKING A WINNER





PROFESSIONAL	JOBS	SUMMITS
--------------	------	---------

RANKINGS



1	1
ι.	1
~	~

Rank 🔺	Name 🌲	No. of FTE Students	No. of students per staff	International Students	Female:Male Ratio
191	University of Massachusetts V United States Explore	59,230	13.3	14%	49:51
192	University of Auckland New Zealand Explore	30,348	18.8	29%	54:46
193	Northeastern University V United States Explore	18,780	14.0	32%	49:51
194	Lomonosov Moscow State University Russian Federation Explore	29,236	7.3	22%	48:52
1					

STUDENT INSIGHTS	
Best universities in the world	
Best universities in the UK	
Best universities in the United States	
Best universities in Canada	
Best universities in Australia	
Best universities in France	
Best universities in the Netherlands	
Best universities in Germany	

#### ACADEMIC INSIGHTS

World University Rankings 2018: results announced

World University Rankings 2018: now starring a cast of thousands

World University Rankings 2018: even the elite need improvement in some areas

World University Rankings 2018: their dreams are not impossible



The smell of an oily rag

## Volatile

## Uncertain

## Complex

Ambiguous



# NEVER STOP

## QUESTIONING



**Brian Flaherty**