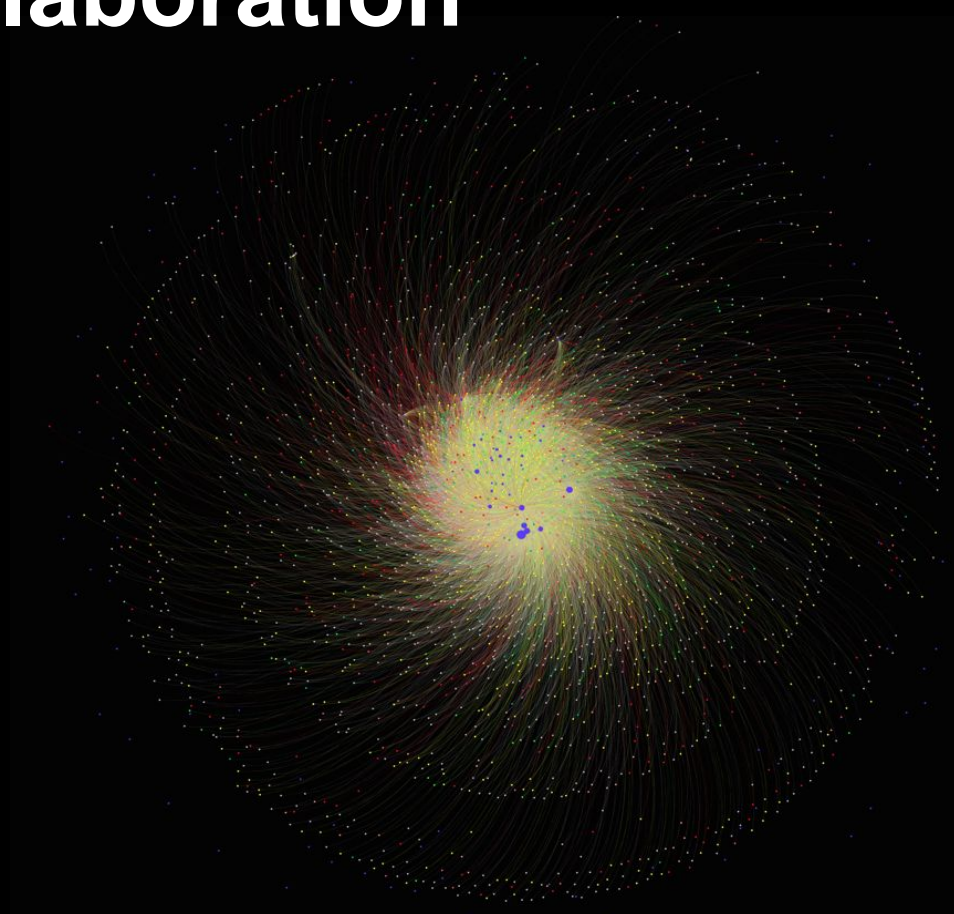
Building ORCID Collaboration Networks

Using PID Graph



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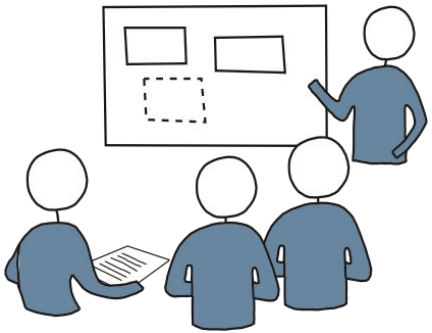
Agenda

Collaboration Network

PID Graph and Research Graph Augment API

ORCID: National and International Connections

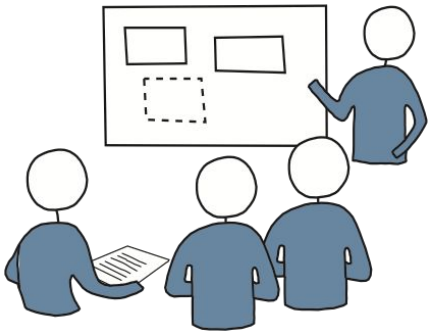
Questions that we are already asking



Research Team

- What is the list of all publications produced by this group?
- What is the number and $ value of the grants?
- Number of PhD Students? Staff? Graduates?
- NTRO

Other questions we also need to ask



Research Team

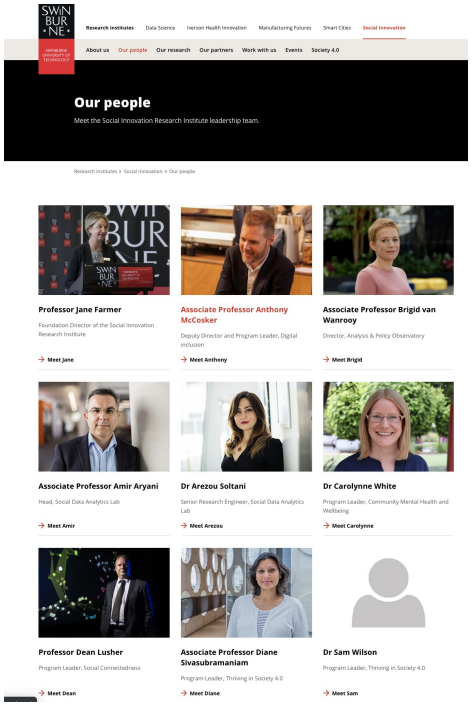
- What are the funding opportunities, that they are missing?
- Who are the potential collaborators, that they are missing?
- What are the industry engagements, that they are missing?

Impact of Networking

- Define Your Network
  - To build a robust network, you have to start by understanding its current state.
- Break Down Your Network
  - Strategic Network
  - Operational Network
  - Developmental Network
- Examine Your Network
  - Which networks are strongest?
  - Which networks need development?
  - Are any key relationships missing?
- Cultivate Relationships

https://online.hbs.edu/blog/post/professional-networking-tips

How do we define the network?

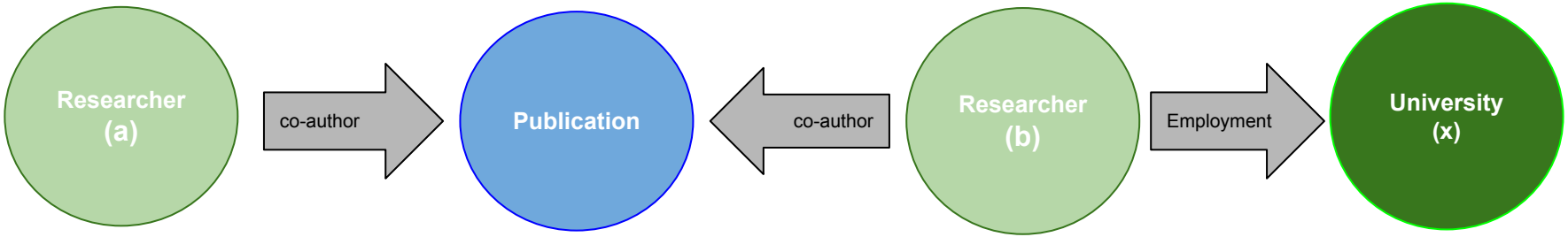


Universities

Industry

Country

Collaboration



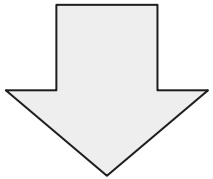
2 Degrees of separation

Researcher - [:author] - **Paper** - [:author] - **Researcher** - [:Employee] - **Institution***

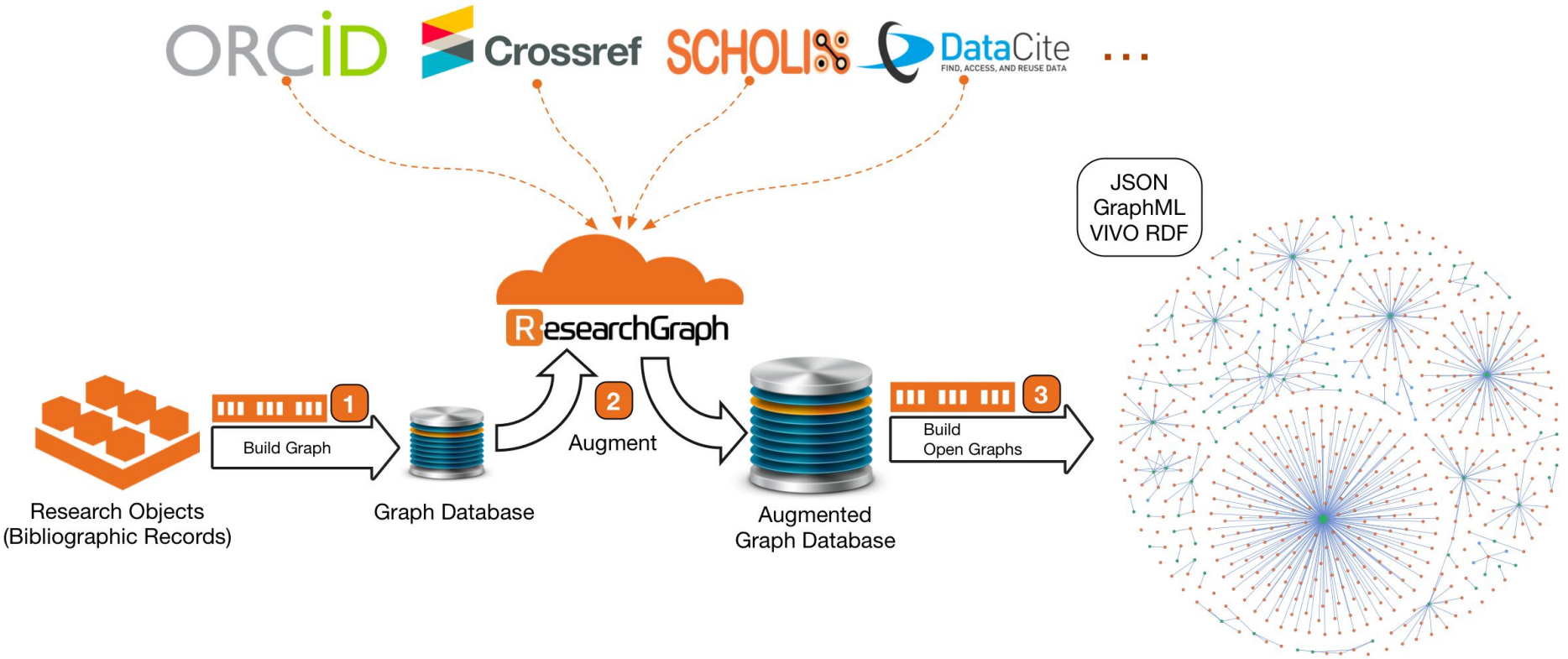
Researcher - [:co-creator] - **Dataset** - [:co-creator] - **Researcher** - [:Education] - **Institution**

Researcher - [:CI] - **Grant** - [:CI] - **Researcher** - [:Employee] - **Institution**

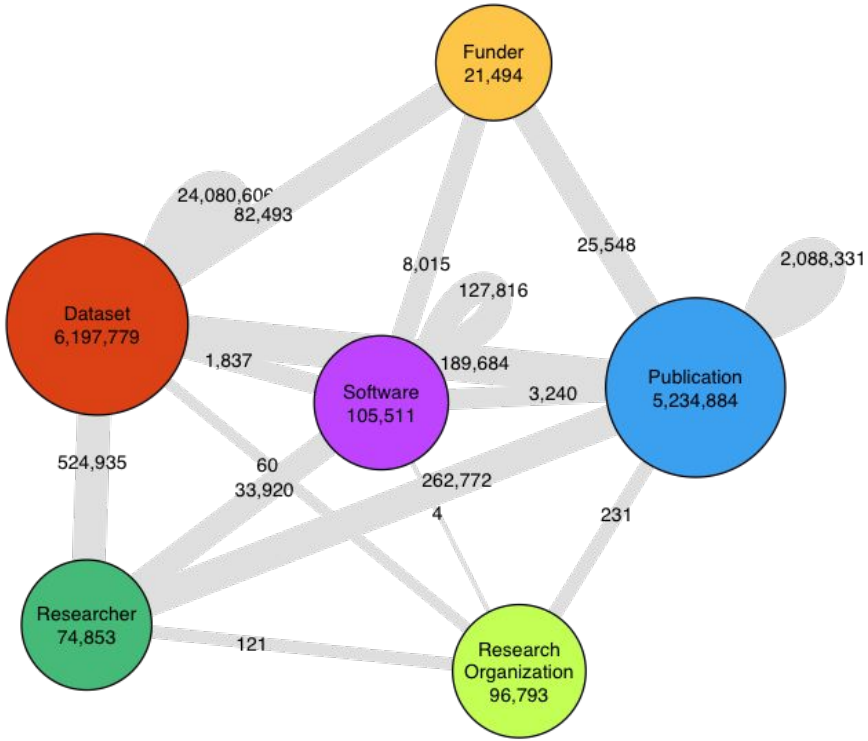
***Institution** → **Country**



Researcher → Researcher → Institution → Country

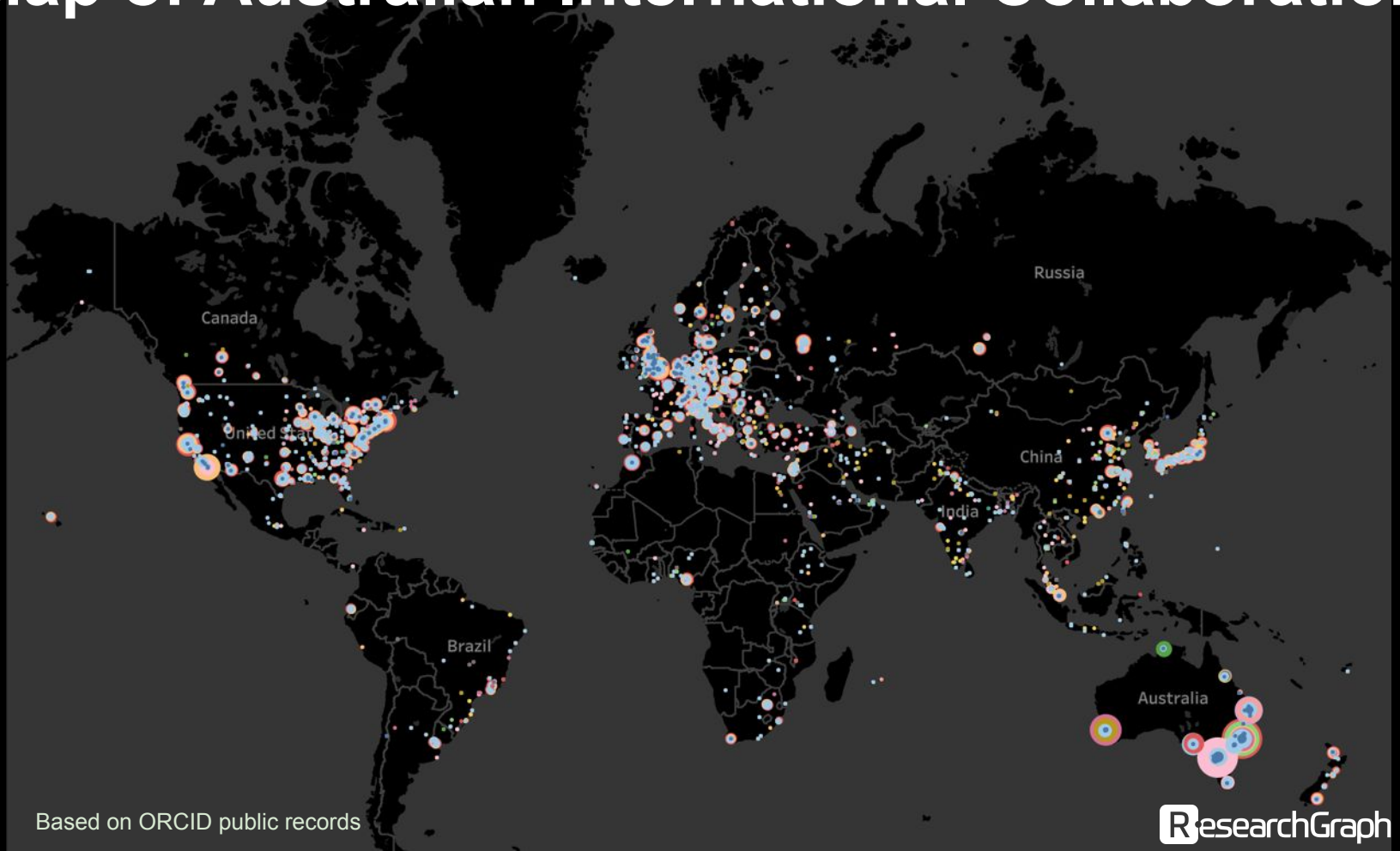

ORCID
Crossref
SCHOLIX
DataCite
FIND, ACCESS, AND REUSE DATA
...
ResearchGraph
JSON
GraphML
VIVO RDF
1
Build Graph
2
Augment
3
Build
Open Graphs
Research Objects
(Bibliographic Records)
Graph Database
Augmented
Graph Database

PID Graph
Number of nodes and connections (17 September 2019)



JSON

Map of Australian International Collaboration



Based on ORCID public records

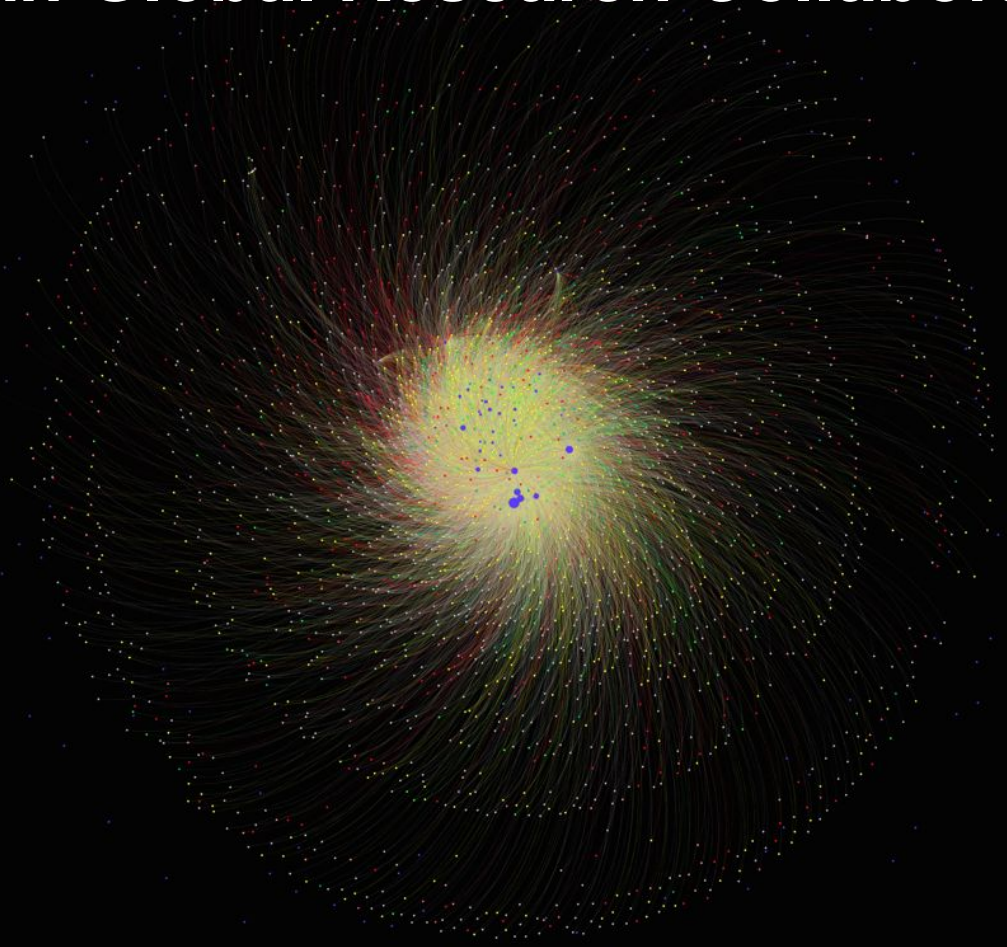
ResearchGraph

Map of Australian International Collaboration

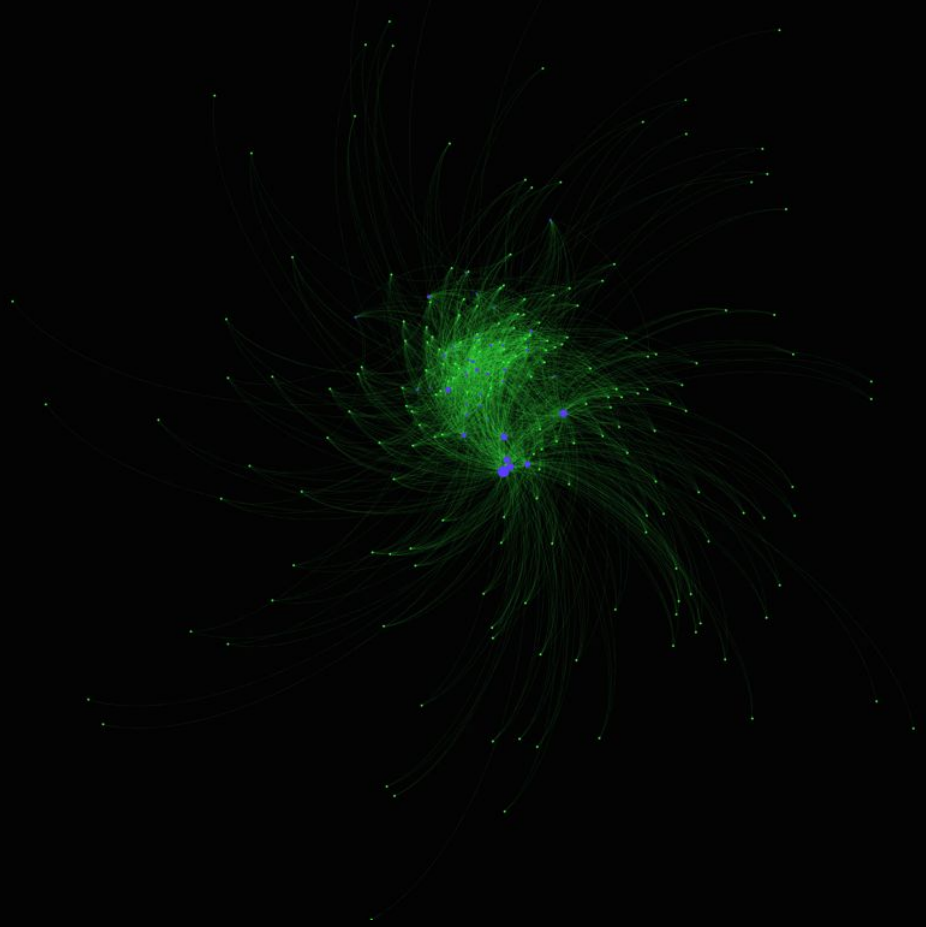
Based on ORCID public records

ResearchGraph

All Australian Global Research Collaboration



Collaboration with United Kingdom



Pages

Columns: AVG(Lng (Source!Info..

Rows: AVG(Lat (Source!Info)) | AVG(Lat (Source!Info))

Filters

Source University..

Marks

All

Multiple

Color | Size | Label

Detail | Tooltip | Path

Multiple fields

Route-identifier

Multiple fields

Multiple fields

Multiple fields

AVG(Lat (So...

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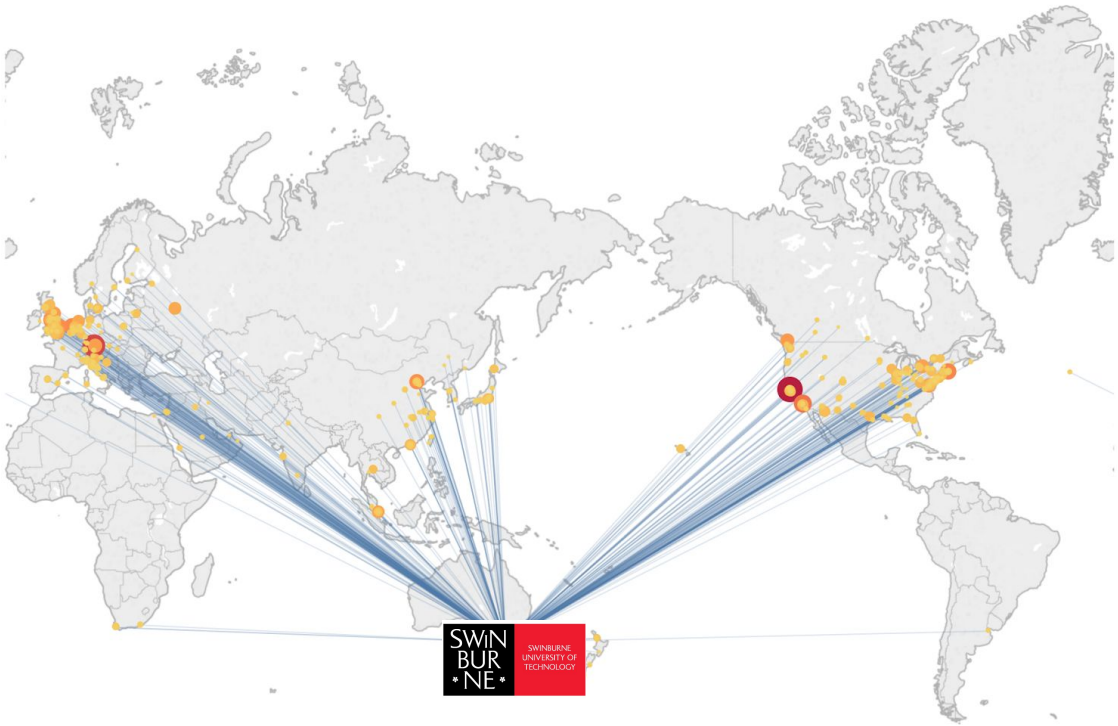
Connections between International Universities and Australian Universities.



Source University

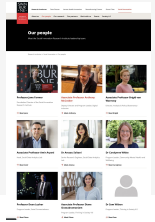
Swinburne University of ..

RGCS

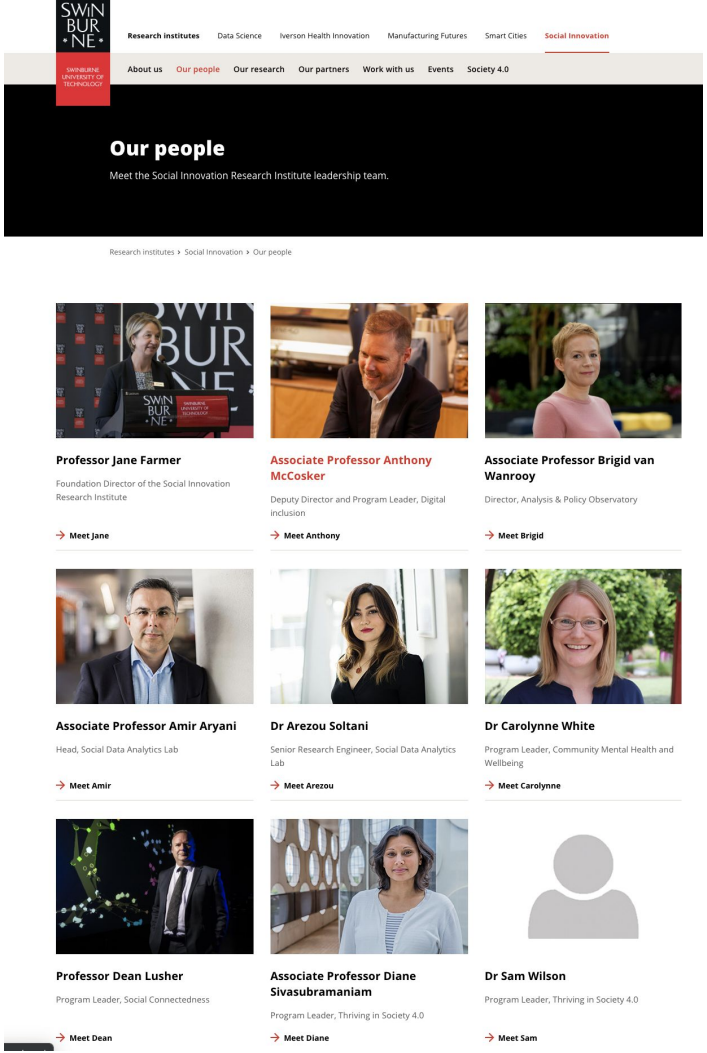
64 4264

Highlight Source Univer...

Highlight Source Univer...



How about our research group?



Live Demo

Social Innovation Research Institute

SIRI Members

Jane Farmer
Foundation Director of the Social Innovation Research Institute

Dean Lusher
Program Leader, Social infrastructure of innovation

Carolynne White
Program Leader, Social and Public Values

Anthony McCosker
Deputy Director and Program Leader, Digital participation and inclusion

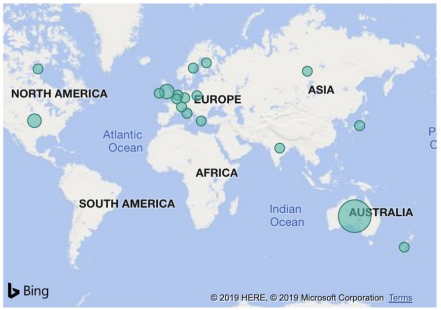
Amir Aryani
Head, Social Data Analytics Lab

Top overall collaborators

93 76 9

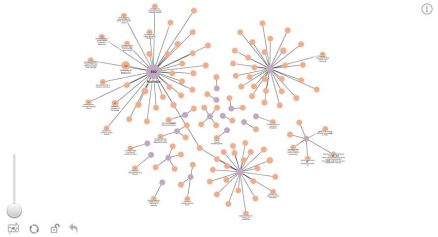
6 6

ORCID Collaboration Network



Collaborator universities	Count
Abdelhamid Mahri University	1
Alfred Hospital	1
American Cleft Palate-Craniofacial Association	1
Argonne National Laboratory- West	1
Arts & Humanities Data Service	1
Austin Health	6
Australian Institute of Company Directors	4
Australian Institute of Tropical Health and Medicine at James Cook University	11
Australian National Data Service	2
Australian Tropical Herbarium, James Cook University Cairns Campus	1
Avantica	1
Barwon Health	2
Total	671

Countries and Universities



Collaboration Network

Next Step: Co-Design

Interested?

Ask Melroy

Melroy.Almeida@aaf.edu.au