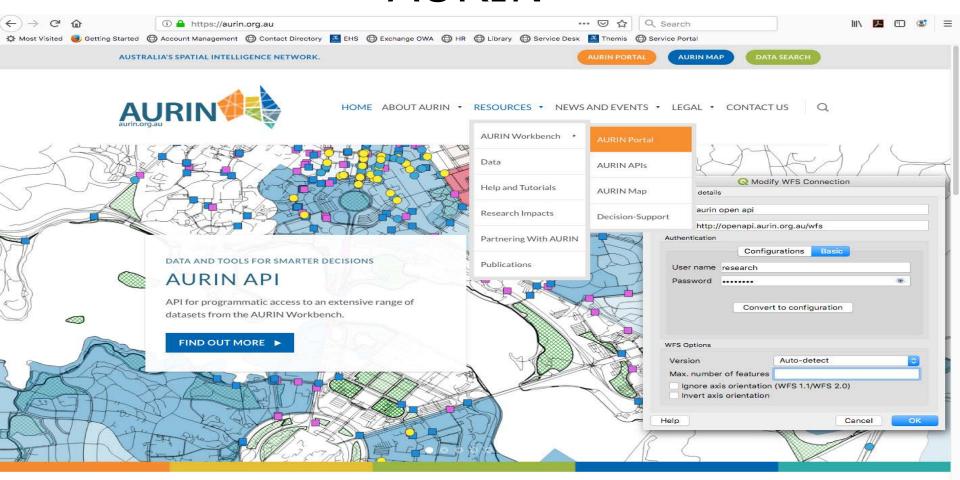# *Workshop Week 2 – Driving AURIN*

Professor Richard O. Sinnott
Director, eResearch
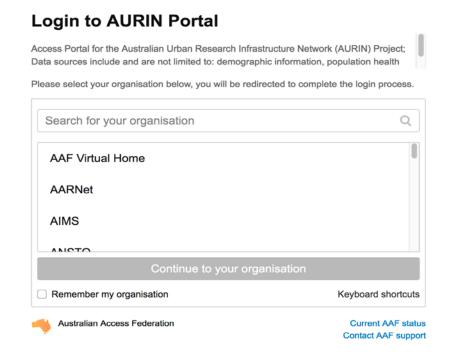University of Melbourne
rsinnott@unimelb.edu.au

AURIN

Scenarios

- Note
  - Staging vs Production (https://portal.aurin.org.au)
- Logging in
  - AAF (more later)
- Area selection
  - the many ways Australia can be aggregated/mapped
- Data searching
  - What data is available for the area selected
- Data shopping
  - Selecting data of interest
  - (Start small...!!!)
- Data visualisation/mapping
  - Putting data onto maps
- Data downloading
  - Getting JSON, CSV
- Data spatialising
  - Getting Shapefiles (including the polygons for suburbs etc!)
- More advanced statistics
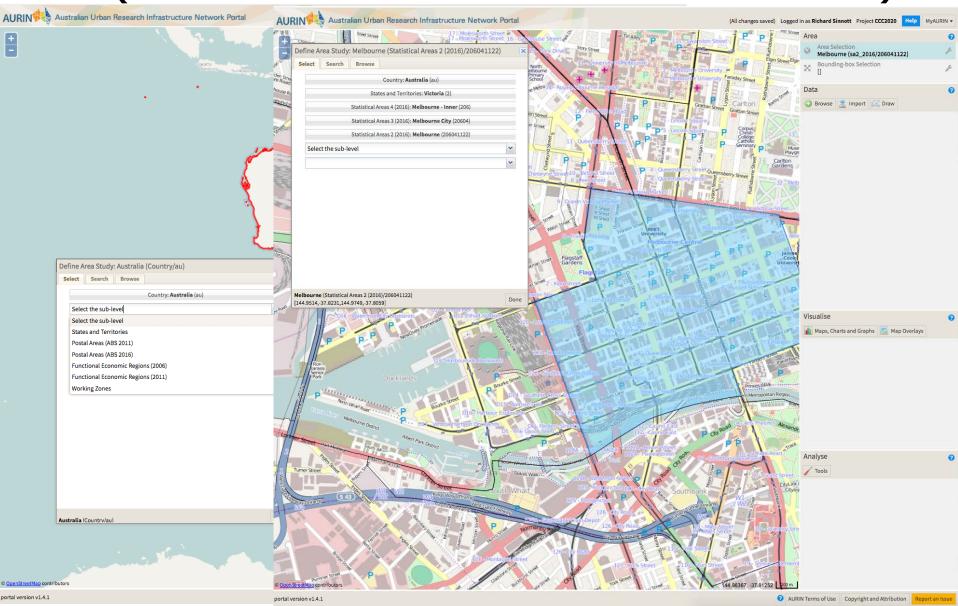 - Not needed for assignments but you might (?) be interested...!

Logging In

- Go to https://portal.aurin.org.au
- Select The University of Melbourne
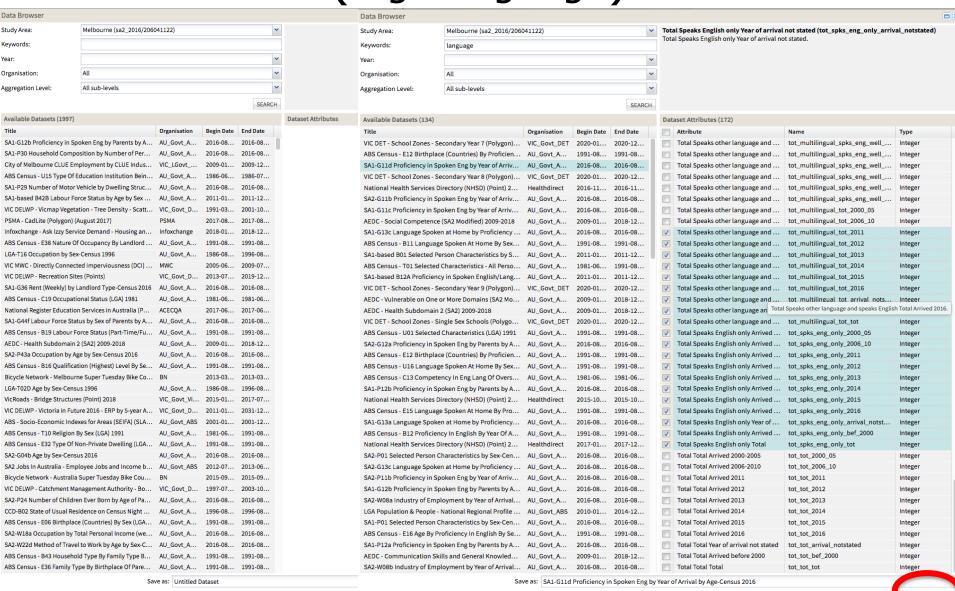- Log in with your UniMelb username/password

- Agree to terms and conditions that pops up
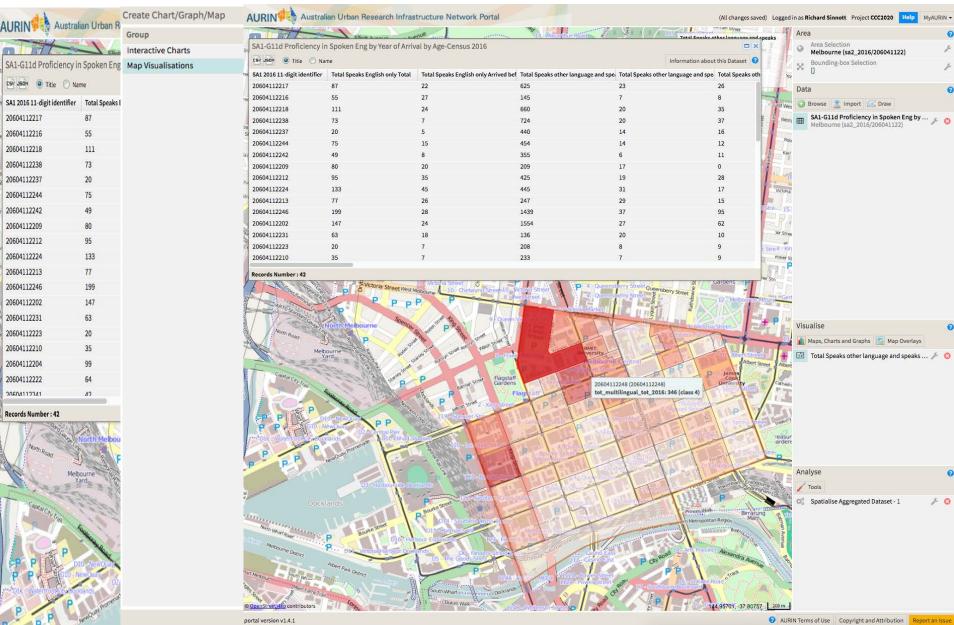 - (you promise not to do bad things with data or sell it etc)

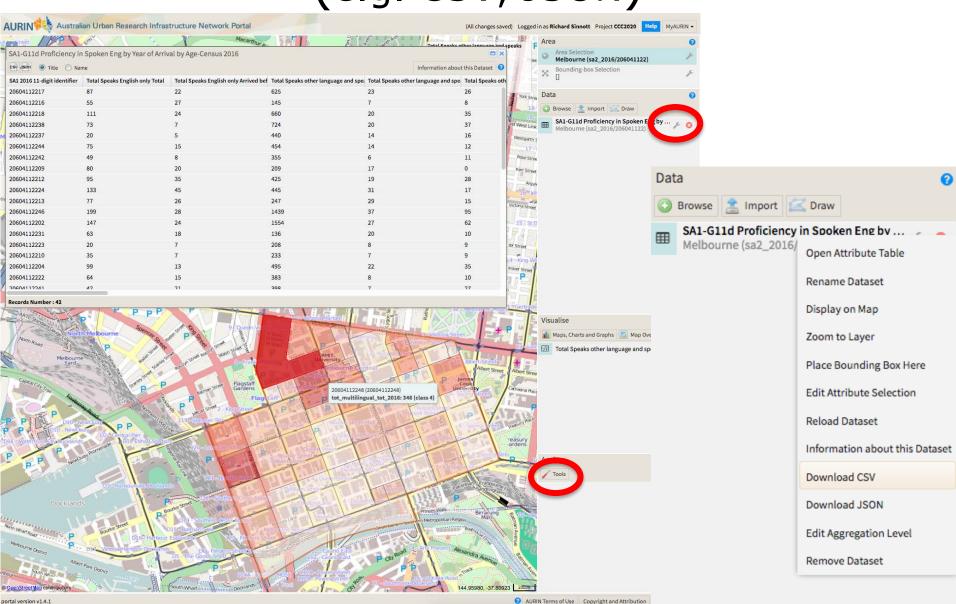# Area Selection
(Aus->Vic->SA4->SA3->SA2 Melbourne)

Data Browsing/Searching (e.g. language)
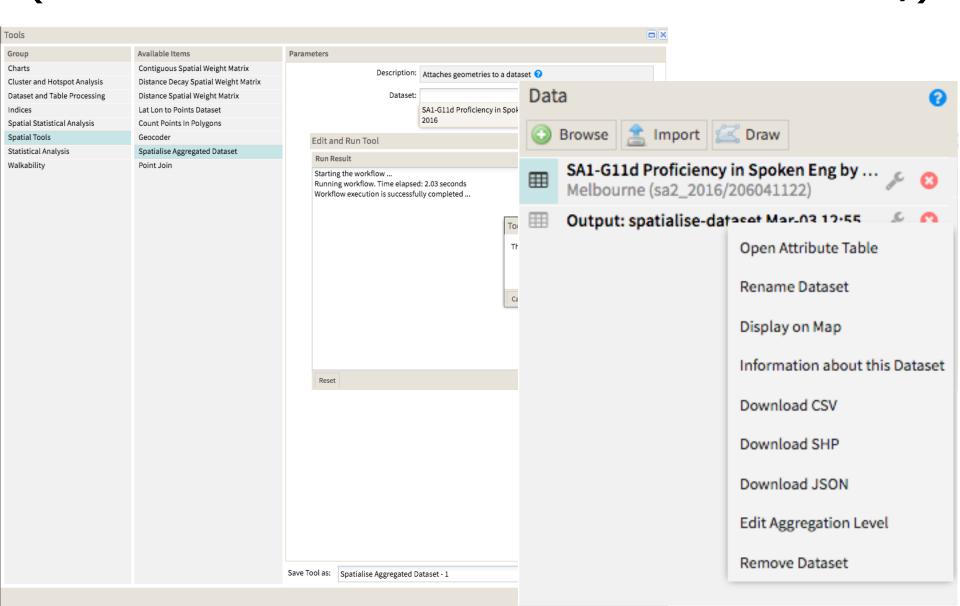
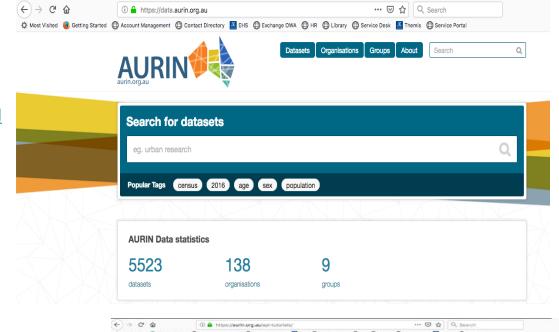# Data Shopping/Mapping

Data Download
(e.g. CSV, JSON)

Data Spatialising

(aka creating Shapefiles (or select data with geometry included))

Other Things

- Data overview
    - https://data.aurin.org.au

- Programmatic access to data
    - https://aurin.org.au/api-tutorials/

(Non-assessed) Homework Test Cases

- Which suburb (SLA) of Victoria has the highest percentage of people that get less than 7 hours sleep per night?

- Which school in Sydney recorded the highest levels of air pollution (PM10 microgramme/m3) in 2019?

- Which local government area (LGA) in Victoria had the most cancer cases in 2015?

- Which suburb (SA2) of Australia has the highest percentage of high earners (weekly family income > $4000) according to the 2016 census?

- How many public toilets were there in Greater Melbourne in 2017? Which SLA had the most toilets?
  - (Hint see Tools::Spatial Tools::Count Points in Polygons)