

## Jean Golding Institute

Making data work for everyone

Using data science to identify and analyse interdisciplinary research at Bristol

# The PURE data challenge

**Competition launch – 27 March 2017 15:00-16:00,**

**Stephenson room, Richmond Building (Students Union)**

**Deadline – 19 May 2017**

### Competition details

The University Research Institutes (URIs) have a role in the university research strategy to promote and encourage cross-disciplinary research. The methods that we use (and explore) for doing this often involve running events such as interdisciplinary seminars/meetings, sandpits, seed-corn funds for grants in interdisciplinary areas etc.

Here one might consider what other resources we have at our fingertips to identify cross-disciplinary opportunities. We could of course use some data to this end and one obvious source might be the **PURE** (**P**ublications and **R**Esearch) **database** that is self-generated by UoB.

### **The question is what would we use it for?**

We would like to invite teams at the University of Bristol to analyse this dataset (information about the data below) and to try to solve the following challenges:

- How would we best visualise the data in PURE and how might we best use it to answer questions like which disciplines/schools are internally best connected in terms of research?
- Which individuals/groups bridge the divides between schools and faculties?
- If we were to take the PURE data and attempt to cluster the individuals into groups would these groups resemble the existing school / faculty structures? If not, what would they represent and would they be useful representations?
- Could the data identify gaps in the interdisciplinary landscape that might be usefully filled to prepare Bristol for cross-disciplinary calls?
- What is the best way to measure interdisciplinary research?

- Can the team detect potential collaborations and/or overlapping research areas that have not been identified in the past (via research groups, institutes, centres, etc)?
- Can we develop an advanced form of visualisation that complements PURE and Scival?

The above questions are only for guidance, the Jean Golding Institute would like to encourage teams to explore the dataset and develop analysis and/or visualisation tools that will provide a constructive view of inter-disciplinarity (current and potential) at the University.

## Data

The PURE team will provide a historical extract (up to the last REF submission) of the information in the PURE database to be used for the data challenge, which will come to you in a set of .csv tables. The information these tables contain includes data both on research outputs generated, as well as on the authors involved on these outputs.

## Competition rules

- The competition will open on the 27<sup>th</sup> March 2017 (see launch meeting), which is when the data will be made available to all participants electronically.
- The competition is open to staff and students at the University of Bristol
- The teams will need to sign up to the competition either by emailing [ask-jgi@bristol.ac.uk](mailto:ask-jgi@bristol.ac.uk) or by attending the launch. Teams can sign up at any point during the competition.
- Entries will need to be submitted by the 19<sup>th</sup> May 2017 to [ask-jgi@bristol.ac.uk](mailto:ask-jgi@bristol.ac.uk), either by sending all relevant materials or by providing a link to an online repository.
- The Jean Golding Institute have the rights to publicly disseminate any entries.
- Up to 5 people can be part of a team.
- The teams that wish to showcase their solutions in the future will need to refer to the competition as follows: *'This work was undertaken using the PURE dataset provided by the University of Bristol as part of a data challenge organised by the Jean Golding Institute for Data-Intensive Research'*.

## Launch meeting

The competition will be launched with a meeting on the 27<sup>th</sup> March 2017 15:00-16:00, Stephenson Room, Richmond Building (Student Union). At this meeting the data will be introduced and members of the JGI will be available to answer any questions surrounding the competition. The meeting is also an opportunity to meet other contestants and form teams should you wish to do so.

The meeting is not a requirement for participating in the competition (but there will be coffee, tea, and cake!).

## Evaluation

The entries will be judged by a panel convened by the Jean Golding Institute.

## **Prizes**

The winner of the competition will receive £1,000, with two runners up each receiving £250.

The Jean Golding Institute will discuss with the winning team how to potentially continue supporting the development of their solutions. There may be an opportunity to distribute the developed work either on an open source or license basis for use outside of the University.

## **Conditions**

The winning teams will need to be available to showcase their entries on the 12<sup>th</sup> September from 16:00. More information will be available near the time.

## **Timelines**

Competition opens:	27 March 2017
Entries deadline:	19 May 2017
Winning team announcement:	6 June 2017
Winners' showcase:	12 September 2017