

## Improving repository data quality & supporting advocacy

### from the University of Plymouth

#### Background

The University of Plymouth has engaged in a process of improving the quality of data to streamline and standardise the use of item types within its Open Access repository PEARL. Led by the library's Open Research and Repository Support team (ORRS), the review of content types in the repository allowed more accurate ways of measuring and understanding engagement with different content types using IRUS-UK reporting. As IRUS aggregates data at scale it makes it easier to spot anomalies and for participants to identify areas for improvement.

In addition, IRUS-UK data is used to produce infographics that explain Open Access engagement across the university.

Improving the data quality and reporting by item types has helped meet the University requirement for better business intelligence about research outputs, impact and Open Access engagement. This means that the University is better prepared to support research audit activities (such as the Research Excellence Framework), wider research activities, and to monitor the uptake of open scholarship across the institution, and in line with Funder and University policies.

#### How is IRUS-UK used?

##### Improving data quality

The first part of the process involved reviewing all the publication types in Symplectic Elements. Symplectic Elements is the research information management system used by the University. It captures, stores and reuses information about researchers, research outputs (bibliographic and bibliometric) and grants. A key reason for doing this was to bring the publication type terminology in-line with terms recognised by creative industries to, in turn, encourage deposits of creative outputs (for example, 'Artwork' and 'Moving Image' rather than using the less well-defined default item types in Symplectic such as 'Artefact' and 'Media'). This consolidation process involved using the IRUS-UK item type mapping conventions and looking at existing descriptions to identify inconsistencies and adapting them to fit the IRUS-UK item type descriptors and provide consistency. Once this was done the University of Plymouth updated the crosswalk between Elements and PEARL to reflect the new mappings and metadata in the repository. This then allowed the item types to be surfaced in IRUS-UK reports which allowed reporting on the content that was deposited as well as to measure the usage of the diverse range of item types in PEARL.

During this process it was discovered that there were other inconsistencies and data missing, particularly for journal data in reports relating to AR4 (Article Report 4). This included ISSNs which were not in a recognised format. The journal ISSN metadata was in the 'dc.identifier.issn' field that wasn't exposed in the OAI metadata. On a recommendation from IRUS=UK, the University implemented a change to the OAI metadata to surface the ISSN in the dc.relation field.

In addition, the Open Research and Repository Support (ORRS) team provided IRUS-UK with data relating to some of the University's in-house journals in the repository to add to the journal area of the IRUS-UK database. This allowed usage of the in-house journals to be tracked.

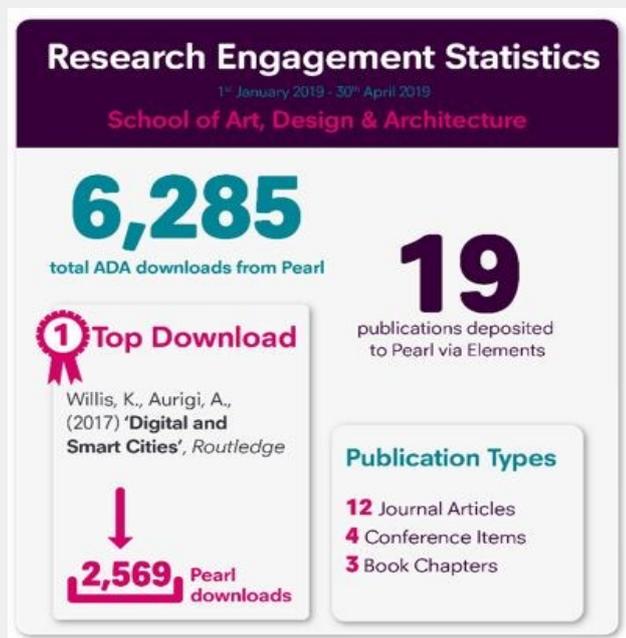
The improvements in the data quality for journals has also provided additional benefits for the Academic Engagement team of Information Specialists. Last year repository staff improved the collection's structure in the repository to reflect the actual structure of the University's schools and faculties. Now Information Specialists are able to look at journal downloads and authors categorised by faculty and school. This was achieved by merging the IRUS report with a spreadsheet of repository items categorised by organisational unit. The resulting information can be sent to the information specialist team who can go through and see who was getting the top downloads from their school.

This is an improvement on the previous situation where Information Specialists were provided with the IRUS AR4 report on a monthly basis. As the report did not contain any data relating to the repository collection or school, Information Specialists had to rely on recognising individual authors' names or subject areas based on the article titles. This was challenging as the author list contains a mixture of authors from schools within the University and those from other institutions. Now Information Specialists can be provided with the IR1 (Item Report 1) and AR4 reports on an excel spreadsheet with an additional column containing the School collection. This means that repository staff only create one report that can be easily filtered by each Information Specialist to identify the publications linked to their school.

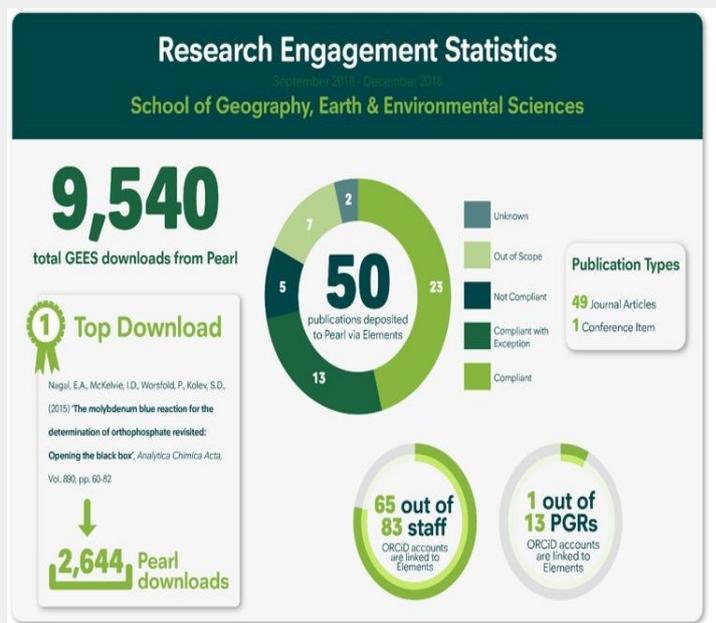
## Supporting advocacy

IRUS-UK data is used to support Open Access engagement and advocacy across the university. The library's Digital Communications team produce infographics using Adobe Illustrator for each school featuring the total number of downloads (using the IR1 report) for the period and the top downloads. These infographics are presented at School and Faculty committee meetings by the Information Specialists. Some information specialists also use the data from the AR4 report to open discussions with individual authors to encourage research deposit and to promote research on the @OpenResPlym twitter account.

Examples of the infographics produced

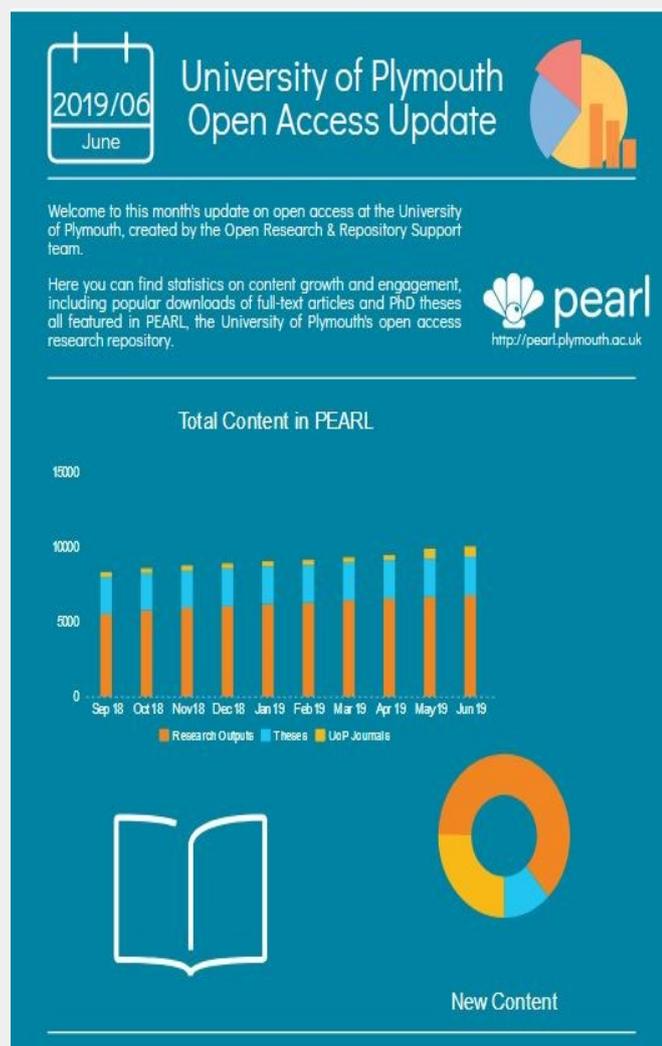


Infographic: Research engagement statistics School of Art, Design and Architecture.



Infographic: Research engagement statistics: School of Geography, Earth and Environmental Sciences.

In addition, a monthly Open Access engagement infographic is produced using Piktochart and put on LibGuides. This draws on the data produced from the AR4, EDT1, IR1, RR1 and RR3 IRUS-UK reports. (See the next page for the explanation of each report).



Screenshot of the first page of the LibGuides

## Outcomes

Through using IRUS-UK to undertake repository housekeeping and improve mappings, the University is now more confident that it can get a good understanding of the usage of a diverse range of item types. Whilst the

usage of many of the new/updated item types is currently low, the mapping will allow identification of trends and changes over time.

The journal metadata has improved. Prior to this work, only 42% of journals that had received downloads with IRUS reports had the complete metadata. After the improvement in the metadata and the addition of the University in-house journals, now 71% have the full and correct information. Some of the in-house journal titles regularly include articles that feature in the most downloaded each month so their inclusion and ability to assess usage has been extremely valuable.

The improvements in journal data quality linked to work to map journal titles to University schools and faculties has also assisted in the reporting to information specialists who are more easily able to identify titles, authors and downloads relevant to their school.

## Next steps

The value of the work undertaken will be further realised in the future when changes and trends over time will become apparent and easy to measure using reliable and consistent IRUS-UK statistics. This will help advocate for Open Access and prepare high-quality data for purposes such as REF.

The inclusion of the University in-house journals and the ability to measure usage through IRUS-UK has provided the opportunity to provide the researchers who run these publications with direct access to the data in IRUS-UK so they can run their own reports and see what has been downloaded. The Open Research and Repository Support (ORRS) team has started to provide researchers with guides on how to access information specific to their journals. This will be continued and will mean that researchers can run reports on whatever they want and not have to rely on an intermediary. It will also free up repository staff time to undertake more development activity.



## IRUS-UK reports/data used

**Article Report 4 (AR4):** for all downloaded articles and allows sorting and viewing of the top downloaded articles.

**ETD Report 1 (ETD1):** for downloads of electronic theses and dissertations.

**Item Report 1 (IR1):** for total item downloads by month.

**Repository Report 1 (RR1):** for top level item downloads by repository and by comparator institutions.

**Repository Report 3 (RR3):** for top level item downloads by country of the requested download.

AR4, ETD1 and IR1 all show details down to item level, with Altmetric donuts and Dimension badges where available. Also they show consolidated CORE statistics and statistics by the country from where the data was requested.

## Related links

PEARL - the open access research repository for the University of Plymouth.

<https://pearl.plymouth.ac.uk/>

Open Access Research statistics on the University of Plymouth LibGuide.

<http://plymouth.libguides.com/open/stats>