

Figshare as an all-in-one institutional repository

Loughborough University's DSpace migration, reconfiguration of the data repository and reintegration with Symplectic Elements

Initially, Loughborough University implemented and configured Figshare to be used as a data repository, eventually becoming an all-in-one repository that includes a wide range of research output types such as data, journal papers, theses and media.

Get in touch:

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Background

Loughborough University implemented and configured Figshare to be used as a data repository in 2014. In 2018, work began to restructure the data repository to be used as an all-in-one multidisciplinary institutional repository that included a wide range of research output types including data, journal papers, theses and media. This required a collaborative rethink of the Figshare group structure, metadata, and ingest workflows, as well as a revised integration with LUPIN (Loughborough's instance of Symplectic Elements) and a migration of records from their existing DSpace repository into Figshare.

Rationale

The University put out a tender to modernise, host and maintain their existing DSpace institutional repository. Key features were that it must deliver against open access requirements, ensure that research from the university was publicly available and accessible in order to maximise stakeholder engagement and publicity, fulfil REF conditions and interoperate with existing internal and external systems.

Why Loughborough chose Figshare to host their combined data and publications repository:

- Using Figshare for publications in addition to data meant cost savings for IT Services.
- Using Figshare for publications would help streamline IT services support for publications systems.
- A visually superior interface, with better file format support and display.
- Excellent customer care and a well-established working relationship with efficient responses to any problems encountered.
- Bi-directional data integration with Symplectic Elements - in support of the UK's REF 2021 Open Access policies and reporting.
- Repository staff who had previously worked on either publications or data would work on a single system, creating a more flexible team.
- Figshare has an automatic integration with Altmetric. Altmetric tracks attention for both the published version of an article and the Figshare version, so all attention shows up on the same Altmetric badge and details page.

Implementation

Stakeholders

Loughborough

- Project manager (IT Services)
- Director of IT Services
- Director of Library Services, and Assistant Director, Research Content and Discovery, University Library
- Research Policy Officers, Research Office
- Middleware and Library System Team, IT Services
- Research Data Manager, University Library
- Institutional Repository Managers, University Library
- Senior Library Assistants (repository cataloguers)
- Academic representatives on Project Board

Figshare

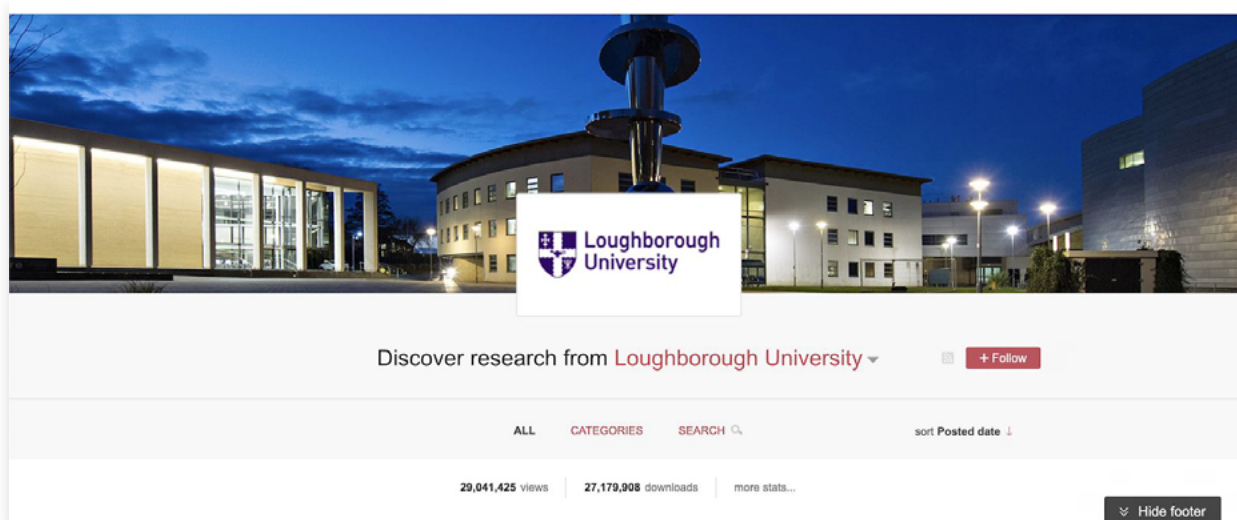
- Technical account manager
- Implementations engineer
- Migration engineer

Symplectic Elements

- Client integration lead

As Loughborough had an existing Figshare repository for research data, some considerations had to be made to reconfigure this portal to make it suitable for peer-reviewed research outputs such as journal and conference papers and the University's collection of e-theses.

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Loughborough's new all-in-one Research Repository is available at repository.lboro.ac.uk

Configuring metadata

1. Customising, configuring, and testing cover sheets for migrated and newly deposited items in PDF format.
2. Support for minting handles in addition to DOIs (developed by Figshare to meet Loughborough's requirements). As a result, certain groups were configured to mint repository handles (e.g. publications with external DOIs linked in custom metadata are assigned handles in Figshare), while other groups were configured to mint DOIs (e.g. e-theses and data).
3. Mapping default Figshare metadata fields to Dublin Core (DC) DSpace fields and remaining DC DSpace fields to custom fields on Figshare.
4. Updating licence lists, item type lists, footer links, branding, user roles, as required by the new repository.

Depositing content

1. Updates to the HR feed to allow access to additional users.
2. Defining workflows for submission of different item types:
 - a. self-submission of e-theses into Figshare via a non-logged in workflow (deposits go into a bespoke administrative account). Customisation decisions had to be made for the submission link, including: subgroups on dropdown, landing page instructions, account to receive submissions, reviewer roles, metadata fields for submission overlay;
 - b. self-publication of data in Figshare (logged in via user account);

- c. submission of publications, articles, etc. via Elements.
- 3. Creating custom crosswalks for deposits from Elements and harvests from Figshare, based on the metadata defined in previous steps (with assistance from Symplectic).
- 4. Integration planning and configurations on stage:
 - a. account alignment (matching user IDs between the 2 systems);
 - b. configuring repository connection in Elements;
 - c. customising, configuring, and testing crosswalks;
 - d. deciding when to enable integration on production (before/after migration).

Organising content

1. Restructuring the hierarchical groups on lboro.figshare.com to include groups for theses and publications.
2. Determining which custom fields belonged to specific item types, creation of groups for those item types, and configuration of custom fields in the relevant item type groups.

Other considerations

1. Re-training staff on a new system with different underlying architecture; involving all staff in relevant metadata and workflow discussions and testing.
2. Redirecting URLs to new locations.
3. Configuring a new custom domain: repository.lboro.ac.uk
4. Resolving any outstanding issues.
5. Assisting Loughborough with harvesting metadata for IRUS, EThOS, and CORE.

Migrating content from DSpace

Content from Loughborough's DSpace repository had to be migrated, ensuring all content was mapped to the correct metadata and group on Figshare. It was also essential that usage metrics were migrated accurately for reporting and engagement purposes. The following had to be considered when migrating content from DSpace:

1. Extracting all records (files and metadata from DSpace).
2. Mapping record locations in DSpace to groups on Figshare.
3. Mapping metadata.

4. Running tests on stage, checking tests, providing feedback, fixing issues, re-testing.
5. Determining a cutover plan (when to shut down legacy repository, when to migrate, integrate, and move users over to new workflows, how to communicate changes, updates to institutional websites and resources).

Timeline for implementation

The timeline for the Loughborough migration, implementation, and integration with Symplectic Elements took about a year from start to finish. Each case is different, however; some can take more or less time.



Thoughts from implementation lead, Kay Lino

Kay Lino, one of Figshare's technical account managers, led the migration and implementation of Loughborough's Research Repository. If you are looking to migrate and/or implement Figshare as an institutional repository combining publications and data, Kay has a few tips:

1. For migrations, the metadata component of the migration was probably the most complex and lengthy task of the project. We had many revisions and updates to both the spreadsheet, as well as the configuration on stage. The complexity of the metadata is dependent on the number of fields you have on your legacy repository and the consistency of formatting. After each iteration of the metadata spreadsheet, we'd run a test migration with a sample list of items, so that the Loughborough team could check and provide feedback. This usually resulted in changes to the metadata for further testing.
2. If you are planning to implement the Symplectic Elements integration, allow plenty of time to consider how best to crosswalk metadata between Elements and Figshare. We had to revise Loughborough's crosswalks a number of times before submissions worked smoothly. In general, initial customisation of crosswalks for repository integrations will require assistance from Symplectic, since repository workflows and other requirements make it quite tricky to write on your own.
3. Edit rights after submission: decisions needed to be made around which accounts would receive which record types (who should be able to access items for editing after submission). Instead of personal admin accounts, Loughborough provided a general email address to create an account for a repository admin, which was configured to receive submissions that should not be accessible to the submitter for editing after submission (e-theses, publications, etc.). The use of a general, instead of personal, account ensured that all records remain accessible to repository administrative staff, regardless of staff roles changing in the future.
4. Every institution will need to approach a cutover plan for their old institutional repository differently, depending on the institutional workflows. For Loughborough, a decision was made to deactivate the legacy repository and redirect submissions in Elements to Figshare before starting the migration. This meant that while the migration was ongoing, items were being submitted into review by researchers, which made the review process time-sensitive and more complicated for a period of time, but prevented any downtime to submissions via Elements.

For questions about Loughborough University's all-in-one Research Repository, please visit [their help page for LUPIN \(Symplectic Elements\) and the Research Repository](#).

If you have any questions about using your Figshare instance as an all-in-one repository or migrating your existing institutional repository to Figshare, please contact info@figshare.com.

Get in touch:
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