The Repository is the CRIS, and the CRIS is the Repository

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Repository/CRIS Workshop (II):
Practical Applications for Interoperability and/or Integration
Open Repositories 2019
About the University of Westminster

4 campuses centrally located in and around the London area

Over 19,000 students from 169 countries

866 academic teaching staff, 680 visiting staff and 928 support staff

World leading research in Art and Design and Media and Communications; Internationally excellent research in English, Architecture and the Built Environment and Allied Health; Excellence in Psychology and Neuroscience, Politics, Area Studies and Law (Research Excellence Framework, 2014)
A Virtual Research Environment (VRE)
Haplo Research Manager

- Student Information (SITS)
- Staff Information (SAP)
- SITS table
- Researcher Profiles
- Repository
- ORCID
- Pre-award support
- Academic profiles (Drupal)
- Ethics Monitor
- PhD Manager
- REF Admin
Stakeholder involvement
Roles and groups
The (long) road
...to Haplo Research Manager

2006-7
EPrints hosted by UoW
Mediated deposit

2012-13
EPrints hosted by CoSector

2014
PhD Manager, Ethics Monitor, Researcher profiles, hybrid Haplo-EPrints
Move to self-deposit

2015
Drupal integration

2016
ORCID integration

2017
Upgrade to Haplo core platform

2018
All Haplo Repository Restructuring

2019
REF Admin
DOI Minting
Preservation via Jisc Open Research Hub
Implementation of PhD Examinations
Implementation of full Funding module
Drupal integration
Hybrid repository solution
Haplo - EPrints

Noted increase in self-deposit (alongside introduction of the REF OA policy)

However...
- Limited metadata model
- Dated public interface
- Single use case
- Unable to manage portfolios and data

Number of outputs included in WestminsterResearch (2006 – June 2018)
Public interface
Pre-migration
## Building the business case
To move to an All Haplo repository

<table>
<thead>
<tr>
<th>Perceived risk</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not being able to submit Research Excellence Framework (REF) return</td>
<td>Focus on standards &amp; interoperability not software</td>
</tr>
<tr>
<td>Loss of access to EPrints community &amp; developments</td>
<td>Growing Haplo user community</td>
</tr>
<tr>
<td>Security of supplier hosting sensitive data</td>
<td>Security built in at platform level</td>
</tr>
<tr>
<td>All our eggs in one basket?</td>
<td>Get out clause - able to export in EPrints compatible format</td>
</tr>
</tbody>
</table>

**Risks of not moving?** not capturing non-text outputs, costs involved in multiple subscriptions, unable to take advantage of EPrints developments nor develop hybrid solution
Building blocks for a CRIS & Repository

1. Data model
2. Workflows
3. Permissions
4. User Experience & Interface
5. Same underlying database as CRIS
6. Data shared between modules in CRIS, including Repository
7. Aggregate data from other systems
Workflows
One workflow for all outputs
Data model

Pervasive multi-values
All attributes are multi-value, and using multi-values works with all Haplo features.

Qualifiers
All attributes can be qualified (like Fully Qualified Dublin Core).

Links as primary data type
Model every "noun" as a type, then link from records instead of using free text. E.g. Authors have their own record, and Outputs link to authors. Allows 'data once' (e.g. ORCID iD on Author goes on all outputs) and easy querying. Used as much as possible, e.g. Projects, Publishers, Funders, Journals, Licenses, Subject, Open Access, File access levels...
Data model
...continued

Hierarchy support for links
  Enables taxonomies, organisational structure, etc.

Pluggable data types
  Some data types need special logic and display. Plugins can define special types, eg DOI,
  Author Citation, ORCID iD, ...

Computed attributes
  Derive metadata from other records in the CRIS, using custom logic. E.g. Department is
  computed from department attribute of author at time of deposit.

Aliasing attributes
  Use same underlying attribute for consistency and discoverability, but display and metadata
  crosswalk to appropriate name for the output. E.g. Author (text) aliases to Creator (non-text).
Building a repository
Requirements gathering, user testing, post-go live feedback

Our Repository and Open Access Advisor has over 10 years experience working with repositories

Focus on our practice-based arts research community

Involved colleagues at the two other universities who had signed up to build a Haplo repository

Wanted to build a standards-based repository that would be useful for the whole sector not just Westminster
Public interface
Post-migration
Benefits
Record of any interaction between Author and Repository Manager

Tasks

Publishing outputs (complete)

added a note:

I've just realised that the version I uploaded does not have figures/tables. Do you want a revised version with that included? The plan is for this to be Open Access given that it was funded by ESRC - I think this is a requirement.

Nina Watts added a note:

I am returning this to you so that you can add the version with the missing material included. Nina

Nina Watts returned the output for amendments

submitted the output for review

Nina Watts published the output

added a note:

The articles has now been published in GOLD OPEN ACCESS

https://www.sciencedirect.com/science/article/pii/S0301421518307638#

Note that the publication date is 2019 (not 2018)
And the abstract has been changed slightly. Can you cut and paste?
Benefits
UK example of pluggable reporting and quality control

UK Research Excellence Framework (REF) Open Access compliance is captured on each record.

Click through for details.
Practice-based arts research
Portfolios and non-text outputs: a case study

Brings together all of the benefits of the software

- One conversation – portfolios of outputs and their associated documentation
- Portfolio workflow (including Portfolio Editor role)
- REF template
- Non-text outputs metadata (Aliasing enables use of terms such as creator, description, contributor without impacting on other templates)
- Integrated with REF Admin workflows (almost live)
- The flexible metadata model meant we were able to not only listen to but deliver on their requests
Collection creation (portfolio) workflow

Portfolio Workflow (assumes individual outputs already added)

- **Author**
  - Start
  - Create / update collection record
  - Submit
  - Check metadata, copyright and access levels
    - Complete?
    - Yes
    - Make appropriate fields of collection record OA?
    - Yes
    - DOI assigned to make collection citable
    - Assigns DOI
    - No
    - Entire record closed access
    - Basic record with specific fields published (embargoes/levels of access assigned)
    - Make changes to published portfolio records

- **Repository Manager**
  - Confirms OA record is ok?
    - Yes
    - Assigns DOI
    - No

- **System**
  - Portfolio workflow (automatically assigned)

- **Collection/Portfolio Editor**
  - Check record is complete
  - Edits content
## All of the metadata

### Non-text outputs

<table>
<thead>
<tr>
<th>Stage in deposit process</th>
<th>Note: indicate which are compulsory fields by *</th>
<th>Practice based output types</th>
<th>Related output types</th>
<th>Open / Closed / Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF mapping</td>
<td></td>
<td>Design</td>
<td>Digital or visual media</td>
<td>Show/Exhibition</td>
</tr>
<tr>
<td>Interoperability mapping based on Jisc RDSS data model</td>
<td>artDesign</td>
<td>image or moving image</td>
<td>show/Exhibition</td>
<td>performance</td>
</tr>
<tr>
<td>IRUS-UK</td>
<td>artDesign</td>
<td>artDesign</td>
<td>image or moving image</td>
<td>show/Exhibition</td>
</tr>
</tbody>
</table>

1. **Choose practice-based or text item**
   - Offer to all? Can we make it more prominent for practice-based research areas?
   - Add text with definition of practice based

2. **Select practice-based output type**
   - artDesign, Design (what's the difference between these two?), Digital or visual media, Show/Exhibition, Performance, Collection. Datacite mandatory field. (keep design)

3. **Title**
   - Datacite mandatory field
   - x x x x x x x x x x x Both

4. **Image credit?**
   - This in Kaptur/Kultur for their carousel of images (used rather than text based landing page)
   - x x x x x x x x x x x Both
First request from researchers
“We want to be able to select non-text outputs”
Non-text outputs
Exhibition output type
Transforming the University of Westminster Repository

Portfolios

Title: Transforming the University of Westminster Repository
Creators: Evans, J., Renner, T. and Tribble, P.
Description: This portfolio brings together relevant work relating to the development of the University's new repository, the result of close collaboration between Westminster and Haplo. Key features of the repository include a single solution for text-based and non-text based outputs; dynamic portfolios and managed levels of access to files.

Portfolio Items:
- Keeping Data Safe: how to implement a secure repository
- Identifying the Different People and Systems Involved and Potential Areas for Risk
- Implementing a next-gen repository mid-REF cycle...madness or a stroke of genius?
- A Single Open Source Repository For Every Use Case
- Building an All Haplo repository: A partnership between institution and supplier, in collaboration with researchers and the user community

Year: 2019
Keywords: repositories, open access, practice-based arts research, non-text outputs

File: Screen Shot 2019-01-15 at 12.18.25.png
File Access Level: Open (open metadata and files)

Tasks:
- Jenny Evans submitted the record 15 Jan 2019, 12:25
- Nina Watts added a note: Released as open access. Nina
- Nina Watts confirmed the record as complete, and proposed Open Access release 15 Jan 2019, 16:05
- Jenny Evans confirmed the Open Access release of the record 15 Jan 2019, 16:06
Assembly: performing the materiality of Muslim prayer spaces

Marsh, J. Assembly: performing the materiality of Muslim prayer spaces.

CREATORS
Marsh, J.

COLLABORATORS
Birmingham Central Mosque

Brick Lane Jamme Masjid

Inclusive Mosque initiative

DESCRIPTION
Assembly is a body of work and ongoing research, which performs the materiality of Muslim prayer space. Assembly is a series of site-specific installations, comprising of hi-scaled moving floor projections with 5.1-surround sound. As the audience enters each prayer site the projection is activated, revealing a pre-recorded film of congregational prayer. The
Exhibition

**Jamaat (2018)**

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**Explore this collection**

- **Assembly: Artist Talk at Closeup Film Centre**

- **Assembly Exhibition Catalogue**

- **Salat (2016)**

---

**CREATORS**
Marsh, J.

**COLLABORATORS**
Brick Lane Jame Masjid community
Inclusive Mosque Initiative

**CINEMATOGRAPHER**
Jonathan Fuller-Rowell

**DESCRIPTION**
Assembly is a site-specific research project made in collaboration with Brick Lane Jame Masjid community. Jamaat (2018) (translated from Arabic meaning assembly) was made and exhibited respecting the religious and cultural rules of the mosque. The mechanical recording device was used as an anonymous eye; in a culturally sensitive environment such as the mosque, the objectivity of the machine allowed entry to a place that is forbidden for a female non-Muslim.

The camera was not permitted to film in front of the people praying, nor could it show their faces. Subsequently, an
Assembly: Artist Talk at Closeup Film Centre


Explore this collection

Jamaat (2018)

Assembly Exhibition Catalogue

Salat (2016)

Title | Assembly: Artist Talk at Closeup Film Centre

Authors | Marsh, J.

Abstract | Assembly, a site-specific performance and artist talk where Julie Marsh shared her latest site-specific artwork made in collaboration with Brick Lane Jamme Masjid community. Through integrity to site this research aims to avoid the fixed representation of social space by an open, genuine investigation. The artist talk was held at Closeup cinema, followed by a short walk to Brick Lane Jamme Masjid to experience the artwork.

Speakers:
Julie Marsh: Filmmaker & Researcher at CREAM, University of Westminster
Naima Kahn: Trustee of the Inclusive Mosque Initiative
Matt Webber: Social Anthropologist at University College London & SOAS

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**Salat (2016)**


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**CREATORS**
Marsh, J.

**COLLABORATORS**
Birmingham Central Mosque

**DESCRIPTION**
Salat (2016) is made and performed in collaboration with Birmingham Central Mosque congregation. The research proposes a new approach to site-specificity: a collaboration between community, artist, machine and site. A key concern is how the collaboration between artist and congregation can inform much of the decision-making around production. Bespoke mechanical rigs perform a dual function, firstly, to record site and secondly to playback the footage in synchronised time and space.

Salat (2016) brings forth a precise relationship between body and space, helped by the fact that the people it addresses are coming to worship and therefore invested in the place. The congregation question how the projected image relates to the real space and how the experience of the real space is mediated by the image.

Salat (2016) challenges ideas about what such happen in a sacred space as the worshippers physically re-oriented themselves to their own image, witnessing the projected image of their body move over their physical body in the site.
# Assembly Exhibition Catalogue


<table>
<thead>
<tr>
<th>TITLE</th>
<th>Assembly Exhibition Catalogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE</td>
<td>Exhibition catalogue</td>
</tr>
<tr>
<td>AUTHORS</td>
<td>Marsh, J.</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>Assembly is a site-specific research project made and exhibited in Brick Lane Mosque. Jamaat (2018) (Arabic: جماعة) (meaning Assembly) comprises of two simultaneous film installations, one in the main prayer hall and one in the female prayer room. At the end of the residency, the Jamme Masjid invite the general public into both sites of worship, providing an opportunity for Muslims and non-Muslims to experience Jamaat prayer via the site-performance.</td>
</tr>
<tr>
<td>KEYWORDS</td>
<td>site-specific</td>
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<tr>
<td></td>
<td>film installation</td>
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<tr>
<td></td>
<td>performance</td>
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<tr>
<td></td>
<td>documentary</td>
</tr>
<tr>
<td></td>
<td>collaborative</td>
</tr>
<tr>
<td></td>
<td>Art</td>
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<tr>
<td></td>
<td>society</td>
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<td></td>
<td>interdisciplinary</td>
</tr>
<tr>
<td>YEAR</td>
<td>2018</td>
</tr>
<tr>
<td>PUBLISHER</td>
<td>Julie Marsh</td>
</tr>
<tr>
<td>FILE</td>
<td>Julie Marsh. ASSEMBLY.pdf</td>
</tr>
</tbody>
</table>

**Explore this collection**

- **Jamaat (2018)**

- **Assembly: Artist Talk at Closeup Film Centre**

- **Salat (2016)**

Share this

- Tweet
- Email
The Repository is the CRIS, and the CRIS is the Repository

Challenges

Diverse stakeholder group can get unwieldy

Different users may have different priorities
  (Research Development Team want absolute control over ‘Funder’ whereas Repository wants the researcher to be able to add new Funders)

Amount of feedback and trying to build that into updates

Time it takes to co-ordinate such a broad range of functions

Things outside our control e.g. recent website redevelopment project

Workflows are so intuitive if something is slightly wrong people notice

Access is so granular it isn’t always easy to describe what one person can do – it depends on their role/s
The Repository is the CRIS, and the CRIS is the Repository

Benefits

One place for researchers to interact with research related information

Level of awareness amongst researchers

Engagement with the practice-based arts and architecture community

Has really developed connections between Professional Services teams and with the academic community

Linked data and single source of truth for everything e.g. information on the Author record such as Department is shared onto records in all areas of functionality and automatically updated when this is changed (e.g. ORCID iD is added to the Author record and immediately available in output records)

Security – access built in at platform level and at field level

Lower subscription and support costs – fewer integrations to maintain
Post go-live
Work continues

REF Admin module – currently in testing
Preservation via Jisc Open Research Hub (Archivematica/Arkivum)
Post-go live repository functionality
Upgrade to core platform for Funding and Graduate School Examinations
Thank you!

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@jennye

Ben Summers, Haplo
ben.summers@haplo.com
@haplorepo

https://westminsterresearch.westminster.ac.uk/item/q9x2v/transforming-the-university-of-westminster-repository