



Building and Sustaining the Digital Repository of Ireland

‘What I Wish I Knew Before I Started’
DRI-DPC Student Conference, 8th February 2018

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An Roinn Post, Fiontar agus Nuálachta
Department of Jobs, Enterprise and Innovation



Ireland's EU Structural Funds
Programmes 2007 - 2013
Co-funded by the Irish Government
and the European Union

HEA | HIGHER EDUCATION AUTHORITY
AN tÚDARÁS um ARD-OIDEACHAS



EUROPEAN REGIONAL
DEVELOPMENT FUND

Introduction to Digital Repository of Ireland

Ireland's national digital repository

Launched June 2015

Built by consortium of institutions.

Current institutions are:

- Royal Irish Academy
- Trinity College Dublin
- Maynooth University

The Digital Repository of Ireland is a trusted national infrastructure for Ireland's social and cultural heritage. We have created this repository with two central purposes: to preserve Ireland's digital heritage for the long term, and to provide users with access to that heritage. At its core, DRI is a research organisation with staff members from a wide variety of backgrounds, including software engineers, designers, digital archivists and librarians, data curators, digital imaging experts, policy and requirements specialists, educators, programme and project managers, social scientists and humanities scholars. DRI was originally built by a research consortium of six academic partners working together to deliver the repository, policies, guidelines and training. Core academic institutions continue to manage the repository and implement its policies, guidelines and training. These are the Royal Irish Academy (RIA), Trinity College Dublin (TCD) and Maynooth University (MU).

Introduction to Digital Repository of Ireland

Built a digital preservation infrastructure (hardware and open source software)

Long term preservation of objects and data relating to arts, social sciences and humanities

Collections from many major institutions

DRI Presentation

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Collections from many major institutions

TDR

Received Data Seal of Approval in 2015



Places us in category of Trusted Digital Repository (TDR)



In 2018 received updated DSA – Core Trust Seal

DRI Presentation

The Digital Repository of Ireland has [acquired the Core Trust Seal](#), a universal catalogue of requirements that reflects the core characteristics of trustworthy data repositories. This means that the DRI maintains its status as a Trusted Digital Repository (TDR) - a status first achieved in 2015 with the [awarding of the Data Seal of Approval](#). More plainly, the certification ensures that the social and cultural data deposited by our Members is remains safely preserved for the long term

DRI Website and Repository (www.dri.ie)



HOME DISCOVER ORGANISATIONS ABOUT ▾ TEAM ▾ WORKSPACE

Welcome to the DRI

The Digital Repository of Ireland is a national digital repository for Ireland's humanities, social sciences, and cultural heritage data. You can browse and search across multiple collections from some of the finest Irish institutions. These collections are safely preserved in the DRI. Please explore and enjoy.



DRI Presentation

Single portal to access the collections in the Repository and to find out more about the structure of DRI, our team, our news and events and to download our publications.

DRI Website and Repository (www.dri.ie)

Web interface for accessing & navigating our collections

View thumbnails & download high-quality preservation objects

Access our Publications, including Metadata Guidelines

Links to Projects, Resources, Events, Blog

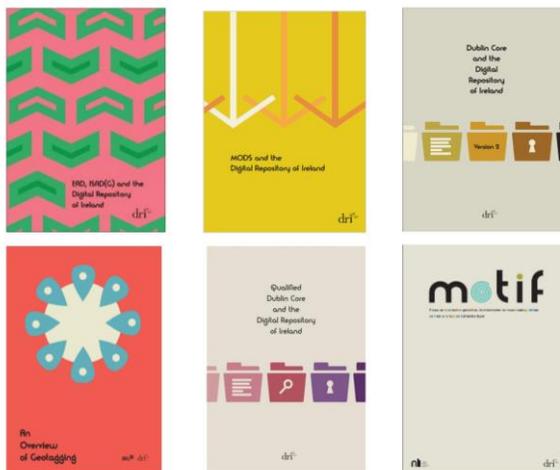
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Publications



DRI Presentation

DRI regularly publishes open-source guidelines on best practices in digital preservation. These includes guidelines for using several metadata standards when cataloguing digital collection, reports on projects, research and technical developments, factsheets to guide depositing organisations, policy documents and pre-prints from the Digital Preservation in Arts, Social Sciences and Humanities conferences which we have hosted twice.

Membership Model

Launched February 2018

Part of shift from research project
to long-term infrastructure

Different levels of membership
to ensure accessibility.

<https://dri.ie/membership>



DRI Presentation

Between 2015 and 2018, DRI evolved from being a time-limited research project to a long-term national infrastructure with core funding from the Department of Education and Skills, Higher Education Authority, and Irish Research Council. We developed out paid Membership Model as a key component in ensuring the long-term sustainability of DRI. Membership ensures long term digital preservation of deposited collections, access to DRI's education and training programme and a place in DRI's expertise and collaboration network, among other benefits.

Members (since Feb 2018)

- Transport Infrastructure Ireland (TII)
- Arts in Education Charter
- Dublin City Library and Archive
- Royal Society of Antiquaries of Ireland
- National Library of Ireland
- Royal Irish Academy
- The Oireachtas Library
- Cornell University
- Trinity College Dublin
- The National Archives of Ireland
- National University of Ireland Galway
- National College of Art & Design / National Irish Visual Arts Library

We also have collections ingested by a large number of Founding Depositors, who deposited collection from 2015 – 2018. Many of these Founding Depositors are in the process of joining DRI under the Membership Model.

We also ran our first Community Archives scheme this year, in which a voluntary or low-funded organisation could apply for free membership, and we just announced the other day that the brilliant Cork LGBT Archive were the winners. We hope to run the Scheme again with scope for more than one organisation to get membership.

Current Projects

RDA Europe 4.0



EUROPE

Atlantic Philanthropies
Archive Project



DRI Presentation

In addition to our core project of building the Digital Repository of Ireland, we are engaged in a growing number of collaborative projects.

DRI is one of the implementers of RDA Europe 4.0, **the centrepiece for an EU Open Science Strategy. RDA Europe is** the European plug-in to the Research Data Alliance (RDA), an international member-based organisation focused on the development of infrastructure and community activities to reduce the social and technical barriers to data sharing and re-use and to promote the acceleration of data driven innovation and discovery worldwide.

DRI will house a digital archive of [The Atlantic Philanthropies](#)' granting activities in Ireland. This three-year project will make select research collections about the foundation's approaches and impact across Ireland available online, and preserve them for persistent access. Over 30 years, Atlantic invested €1.6 billion in Ireland, including Northern Ireland, to advance higher education, human rights, further the peace process in the North, and improve services and policies for young people and older adults.

Past projects include the Inspiring Ireland 1916 exhibition and the spin-off Frongoch and the Irish Rebellion project.

Data Reuse in DRI – Datacite

All objects ingested into DRI are automatically pushed to Datacite where they are assigned DOIs



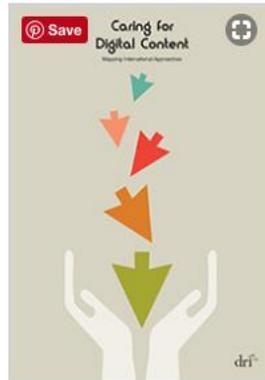
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The following slides were originally part of a presentation given by DRI Software Engineer Kathryn Cassidy at Open Repositories 2018, reused with permission of the author

The title of the talk that Kathryn proposed was “Digital Repository of Ireland case study” with the tagline “Digital Repository of Ireland case study”. That tag line might be a little bit unfair, we have a stable repository with a solid userbase and almost 10 years of experience. We’re a national infrastructure with member organisations throughout out Ireland

We wanted to talk a bit about our experiences as an open source project and to look at some of the challenges we’ve faced. It seemed like this would be a useful exercise for us, and maybe it will be helpful for some of you too

Requirements and Policy



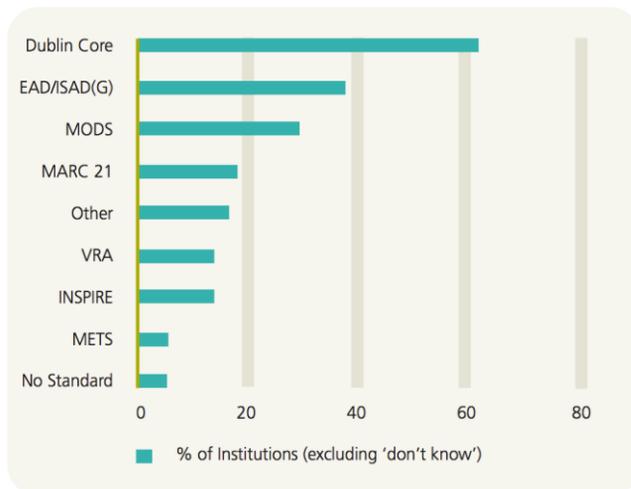
Before the repository was launched in 2015, we started with a requirements gathering and research. We surveyed Irish institutions and produced a report “**Digital Archiving in Ireland: National Survey**”.

We also looked at international best practice and the findings were published in a report called “Ca

Also requirements

I’m going to start by pulling out some of the findings or some of the requirements that we came up with. I’m not trying to say that we are unique and special in any way, but we had a few requirements that

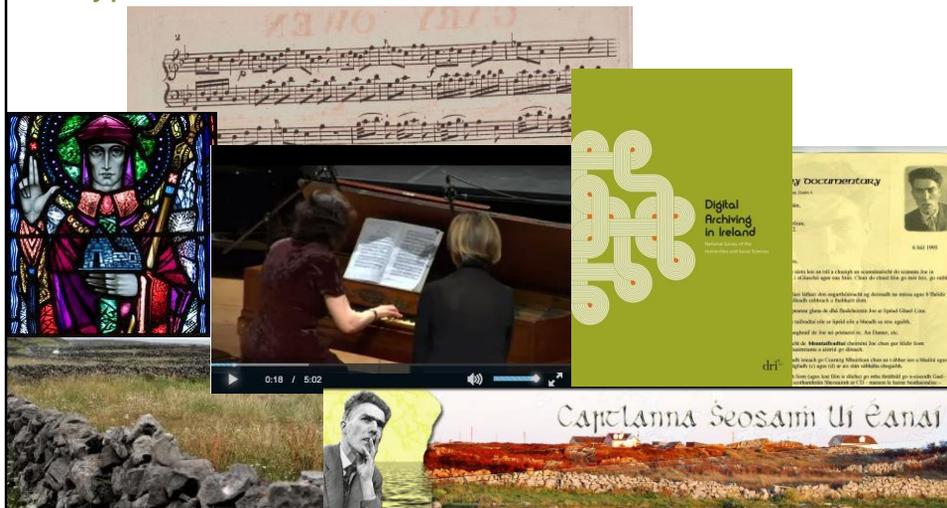
Metadata standards in our Designated Community



Support for multiple metadata standards

We also came up with a requirement that we would ingest this xml metadata and we would keep it

Types of Media



Manuscripts (sheet music, letters, etc.)

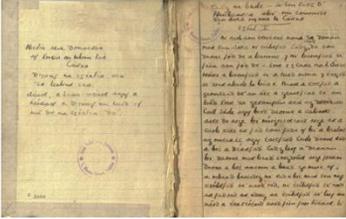
images

video and audio materials

PDFs and other text formats including all of our own publications

A lot of Irish language or bi-lingual materials

Seán Mac Giollamh: Lámhscríbhinn 57
← Siar chuig Cuardach



Browse ↔ 3 as 47 →

Uirlisí Oiblichta

Leabharharcáil an Oiblicht

Bainistigh do chuid Leabharharcanna

Meiteashonraí Iomlán

Easportáil go dtí EndNote

Luailgh

Stair

Oscail sa Spás Oibre

Ioslódáil an sócmhainn

Teideal
Seán Mac Giollamh: Lámhscríbhinn 57

Cur Síos (Béarla)
This is a scanned copy of Manuscript 57 of The Seán Mac Giollamh Collection. The manuscript contains a collection of folk tales. The pages are numbered by hand and extend to 45 pages. An inscription at the beginning indicates that the material was collected from Míolán Mac Donnchadha, Róisín na mBan loch, Cárma. It also provides details regarding the provenance of the tales. Titles in the Manuscript are: 1. Tadhg na Bulle; 2. Sgeal faoi Dhomhnall Ó Flaithbearta; 3. Flaithbeartach eile a bhí ina chomhnuidhe ar loch Scainnibh i gCárma. 4. Réamon a Túrta agus na Flaithbhearta a bhí i gCaislean Ach na nIúr. 5. Sgéal eile faoi na Flaithbhearta agus faoi mhuintir Laoithe. 6. Sgéal faoi Chruaidh na Cara; 7. Sgéal faoi Chruaidh Na Caolice; 8. An chéad thear dhe chiann Dhomnachadha a tháinig isteach go gleann Iarr Chonachta.

• [Foláigh an Béarla](#) »

Cur Síos (Gaeilge)
Cóp scanta í seo de Lámhscríbhinn 57 de Bhallúchán Sheáin Mhic Ghiollamh. Bailiúchán de sóalta seanchais atá sa lámhscríbhinn. Breacadh uimhreacha ar na leathanaigh agus cuimsíonn sí 45 leathanach ar fad. Tugann inscrríbhinn ag tús na sóalta. Teidil sa Lámhscríbhinn: 1. Tadhg na Bulle; 2. Sgeal faoi Dhomhnall Ó Flaithbearta; 3. Flaithbeartach eile a bhí ina chomhnuidhe ar loch Scainnibh i gCárma; 4. Réamon a Túrta agus na Flaithbhearta a bhí i gCaislean Ach na nIúr; 5. Sgéal eile faoi na Flaithbhearta agus faoi mhuintir Laoithe; 6. Sgéal faoi Chruaidh na Cara; 7. Sgéal faoi Chruaidh Na Caolice; 8. An chéad thear dhe chiann Dhomnachadha a tháinig isteach go gleann Iarr Chonachta.

• [Foláigh an Ghaeilge](#) »

Cruthaitheoir
Mac Giollamh, Seán

Rannpháirtithe

Bilingual repository

UI translated

Irish and English assets

Irish and English metadata

Trusted Digital Repository

- Many requirements came from ISO16363 / TRAC
- DSA & CoreTrustSeal certified



Trustworthy Repositories Audit & Certification (**TRAC**)

A bespoke solution based on Open-Source tools



Gave us active community support, Joined Samvera and Fedora consortia

What has gone well 😊

Lots of things have been very successful

- Members of Samvera & Fedora consortiums
- Open-sourcing our own codebase
- Mostly agile development approach with a lot of input from real-live users
- Keeping up with community developments
- Open and transparent about our process
- Transfer from time-limited research project to national infrastructure

Maynooth University Library using our code base for their own special collections repository
- Feedback and contributions from them

Members ingesting data all along and testing the ingest process

Successful migration from Fedora 3 to Fedora 4

What has gone not
quite so well 😞

Resourcing

- During the first phase of our project we had up to 10 developers / technical staff
 - UI/UX developers
 - back-end developers
 - data modelling developer with metadata expertise
 - storage engineer
 - dev ops engineer
- Now we have 2 developers responsible for all of the above
- Similar downsizing across all aspects of the org – digital archivist, E&O, membership etc. We do a good job but it's a lot for a small team

We can't put two developers for a month on some problem anymore.

While the securing of long-term funding was essential for the continuation of the infrastructure, it

If we had started with 2 developers, we might have ended up with a more lightweight solution that

Committing back to the community

- We have written a lot of code, but we have not submitted much back to core Samvera codebase
- As our code further diverges it becomes more and more difficult to rectify this
- So we're not giving as much back to the open source community as we would like

Lessons learned

- Share what you've learned!
- Keep track of emerging consensus / standards, but don't adopt too early
- Think about organizational resources when planning what you want to achieve – it can be just as good to do smaller-scale things like targeted training sessions really well, rather than overcommitting to big-splash things like a conference every year
- Revisit your assumptions!

For example, we identified a need among Members for training in using a tool like Open Refine to c