

Monday June 10th - OR19 Workshop on Repository/CRIS Interoperability

The June 10th OR19 Repository/CRIS Workshop will feature two sessions:

- A morning session (9:00-12:30) will address the technical challenges posed by the need to make repositories and CRIS systems interoperable or, in some cases, fully integrated.
- An afternoon session (13:30-17:00) will explore the multiple applications of repository/CRIS platforms in areas like metadata management for publications and data, the provision of funding information across platforms or the introduction of a growing range of persistent identifiers.

Both sessions will feature a number of case studies and will be followed by a discussion and a Q&A. Because the attendance to both halves may vary, a short introduction will be delivered before the presentations for the case studies start. The draft structure for the event is shown below

Morning session (9:00-12:30): Technical challenges in the way of repository/CRIS interoperability (room tba)	
9:00 9:15	Introduction: The evolution of repository/CRIS interoperability/integration (Pablo de Castro, University of Strathclyde and euroCRIS)
9:15 9:35	Repository and CRIS interoperability issues within a 'connector lite' environment (George Macgregor, Strathprints Repository Manager, University of Strathclyde) <i>This will be a remote presentation over skype</i> Repositories continue to be systems designed principally for gathering, disseminating and preserving the intellectual output of research institutions and, in so doing, fulfilling the goals of Open Access (OA), generating global visibility for institutional research and collecting institutional research content in a single digital location. A CRIS, by contrast, tends to be more holistic in the nature of the information and data it is designed to curate; providing a comprehensive overview of contemporaneous institutional research activity by drawing together information from a number of disparate research-relevant sources, thus enabling improved administrative processes within research-intensive organisations. The differing functions of both systems is the pretext for many of the interoperability issues which now impede efforts to improve integration, data sharing, etc. between CRIS platforms and repositories. The purpose of this contribution is therefore to present the repository and CRIS configuration used at the University of Strathclyde, specifically the parallel operation of both EPrints and Pure. The contribution will review the technologies used and explore the technical obstacles which impedes greater technical interoperability, as well as some of the workarounds which have been deployed to improve integration and funder compliance. The use of a so-called 'connector-lite' approach to servicing the differing technical requirements of the repository will also be described.

<p>9:35 9:55</p>	<p>Regional Research Portal UnityFVG: DSpace-CRIS interoperability with CERIF standard (Jordan Piščanc, University of Trieste)</p> <p>Friuli-Venezia Giulia "Regional Scientific System" includes three Public Universities that started in 2014 a common project UnityFVG for integration and exposition of their Research "entities".</p> <p>The UnityFVG Research Portal is based on DSpace-CRIS solution and uses CERIF-XML over OAI-PMH for harvesting the main entities (Researchers, Organizations, Publications) from the Institutional DSpace-CRIS systems, also exploiting their REST interface to enrich data exposed on the Portal. CERIF was chosen as the best option to send rich information to the portal in a standard reusable way.</p> <p>In 2018 we started harvesting other entities (Research Groups, Public Engagement Events, Journals, Conferences, Datasets) and linking them to Researcher Profiles, developing a special interface to search and view Researchers' "skills".</p> <p>All this data is collected and linked together using persistent identifiers like DOI, Handle, ORCID. The use of PIDs provides an effective response to a major challenge of the project: to collect plenty of information from different sources and to match it in unique entities/items without ambiguities or duplicates, representing the research life-cycle.</p> <p>The whole project is based on free, open source software, and on the technical support of 4Science. DSpace-CRIS proved to be a robust and sustainable solution both for institutional CRIS and collective portals.</p>
<p>9:55 10:15</p>	<p>Time to REST: The University of Stirling's REST API based integration between Worktribe and DSpace (Michael White, University of Stirling)</p> <p>This presentation will provide an overview of the University of Stirling's REST API based integration between our recently implemented Worktribe CRIS system, which replaced our previous Converis based CRIS, and our well established DSpace based Institutional Repository, "STORRE".</p> <p>The integration is based around an intermediate application layer that sits between Worktribe and STORRE. Whenever an output is added to, or edited in, Worktribe, its details are sent to the application layer using Worktribe's built-in "PUSH Queue" mechanism. If the Output is eligible for addition to, or update in, STORRE it is added to an intermediate STORRE Queue in the application layer. An overnight job then processes records on the STORRE Queue, exporting any eligible outputs from Worktribe to STORRE; calculating and applying any embargoes on the full text files in STORRE that may be required; and writing the DSpace Handle of any new records back to Worktribe.</p> <p>The application layer also provides a number of web based tools to enable Repository Staff to review and process items on the intermediate STORRE Queue; explicitly export individual or multiple outputs to STORRE; resolve error conditions; and manage all the various mappings that are required to support the integration between the 2 systems.</p>

<p>10:15 10:35</p>	<p>Supporting a repository platform-agnostic ecosystem: An introduction to the bi-directional API-based repository integration framework used by Symplectic Elements clients across the world (John Fearn, Symplectic)</p> <p>Symplectic’s first repository integration framework focussed on passing the high quality metadata captured in Elements to a linked repository - as part of the deposit process. This worked well for our institutional clients at the time, but the recent development of expansive funder and institutional OA policies created the need for a more responsive, two-way integration between Elements and a variety of institutional controlled repository platforms.</p> <p>Recent advancements in repository API technology, coupled with a new repository integration philosophy and framework developed by Symplectic now affords our clients a more reliable and maintainable integration between Elements + DSpace, EPrints, Figshare and/or Hyrax. By investing in interoperability we are now able to better support institutions looking to offer systems that encourage researchers to make more of their research open, whilst simultaneously benefitting from more streamlined research administration and better institutional reporting of OA activity.</p> <p>During this presentation we will provide an overview of our latest repository toolset, share our experience of integrating Symplectic Elements with DSpace, EPrints, Figshare and Hyrax APIs - including multiple repositories connected to a single Elements system - and outline a number of emerging opportunities for future interconnectivity.</p>
<p>10:35 11:00</p>	<p><i>Coffee break</i></p>
<p>11:00 11:20</p>	<p>Enhancing interoperability: the implementation of OpenAIRE Guidelines and COAR NGR Recommendations in CRIS/RIMS (Susanna Mornati, 4Science)</p> <p>The continuous work of the OpenAIRE community on guidelines for CRIS managers, literature repositories, and data archives, together with the publication of the “Behaviours and Technical Recommendations of the COAR Next Generation Repositories Working Group”, are raising important challenges for the CRIS and the repository communities, working together to make research information more and more interoperable, and, hopefully, open. The recommendations of the Open Science Policy Platform, published by the European Commission, identify FAIR (Findable-Accessible-Interoperable-Reusable) data among its priorities. In an interoperable world, all these indications lead toward a common direction, where implementers are encouraged to use open protocols, such as the OAI-PMH and ResourceSync, open standards such as CERIF, persistent identifiers such as DOIs and ORCiDs, to make this happen. The presentation will go through these challenges, illustrating how CRIS and repository managers should work together toward a successful information exchange, and exemplifying how a single free open platform, DSpace-CRIS, can implement both a CRIS and a repository and fulfill requirements for a FAIR environment for research information and research objects.</p>

11:20 11:40	<p>A staged path to fully integrated CRIS & Repository (Ben Summers, Haplo)</p> <p>In 2013, Haplo started working with the University of Westminster to build their CRIS on top of an innovative information management platform that drew inspiration from Repository technology. After succeeding in transforming other areas of research administration across the university, the system of record for the Repository was moved to the Haplo platform to take advantage of the high levels of user engagement and workflow support. Initially this integrated system used the EPrints API to publish outputs on the web through Westminster's existing EPrints instance. Challenges with the API and limitations of EPrints capabilities and schema constraining Repository functionality, along with increased institutional confidence in the Haplo CRIS, lead to Westminster moving to use Haplo Repository to publish their outputs on the web. This enabled adoption of Haplo features such as practise based research, portfolios and REF management functionality to be used, along with a public interface which reflects the University's branding. This case study will explore the technical and institutional policy decisions along the path to a fully integrated CRIS and Repository, and the challenges and advantages of this approach.</p>
11:45 12:30	<p>Panel discussion with all presenters (Chair: Pablo de Castro)</p>

Afternoon session (13:30-17:00): Practical Applications for Interoperability and/or Integration
(room tba)

13:30 13:45	Introduction: Applications of repository/CRIS interoperability/integration (Michele Mennielli, DuraSpace)
13:45 14:10	Enhancing Open Access at Cambridge: Apollo repository and CRIS integrations (Agustina Martínez García, Apollo Repository Manager, University of Cambridge) Following from the integration of Cambridge's Institutional Repository, Apollo ¹ , with the University's CRIS system (Symplectic Elements), Cambridge University Library has developed two web-based systems to further streamline and enhance the workflows for managing Open Access (OA) publication submissions, and to collect key missing publication metadata in ways that improve researchers' interaction with the relevant systems. The first system, <i>Fasttrack</i> , aims to drastically reduce the time needed to process repository submissions. It provides a user-friendly interface to review and approve submissions in Apollo via the DSpace API. The second web-based application, <i>LastMinute.CAM</i> , is a simple web form to collect missing publications metadata required for calculating open access compliance. Collected publications metadata is automatically pushed into the CRIS' associated publication records and is then available to the CRIS' reporting services. We will also present preliminary results from the Jisc Publications Router ² – Symplectic Elements integration pilot in which we are participating. The Publications Router is a JISC-led project to create a system that automatically sends notifications about research articles to an institutions' repository, together with full-text copies of those articles where available. This has the potential to both streamline open access deposit workflows and enrich metadata records in the CRIS system. ¹ Apollo https://www.repository.cam.ac.uk ² Jisc Publications Router: https://pubrouter.jisc.ac.uk/
14:10 14:35	The Repository is the CRIS, and the CRIS is the Repository (Jenny Evans, University of Westminster) The University of Westminster's Virtual Research Environment (VRE) is a CRIS system built using extended Repository technology. The Repository is a central part of the CRIS, and benefits from advanced capabilities driven by the need for the underlying platform to support CRIS and Repository functionality. Developed in close collaboration with researchers and library & scholarly communications at the university, the VRE has wide functionality and extensive data sharing between components. While metadata management, integrations, and persistent identifiers are vastly simplified by the approach, the shared nature of the CRIS presents challenges in terms of blurred boundaries and data ownership between departments and teams. A considered approach to governance and business ownership has led to close collaboration between different stakeholders, and significant benefits in providing a holistic view of research across the university and throughout the lifecycle of individual research projects. A single user interface and provision of a "one stop shop" for research has provided high levels of researcher engagement, and the collaborative development and management of the project has delivered functionality which meets user needs, particular with support for practise based research.

14:35 15:00	<p>RCAAP Repositories Network - Promoting Interoperability with CRIS systems (Paulo Lopes, RCAAP, FCT/FCCN)</p> <p>Description of a set of initiatives adopted to develop an integrated network of repositories with the National Science Management Ecosystem. We will focus on 5 sets of use cases interactions: Claim tasks; Direct deposit from external CRIS systems; Synchronisation tasks; Authority control for CRIS entities; Data curation tasks. In particular, we focus on the guidelines, tools, services and open access practices.</p>
15:00 15:30	<p><i>Coffee break</i></p>
15:30 15:50	<p>Smooth Integration: the happy marriage of a CRIS and a repository (Betsy Fuller, STORRE Repository Manager, University of Stirling)</p> <p>In May of 2018, the University of Stirling replaced its CRIS with Worktribe. The previous integration between our former CRIS and STORRE, our DSpace full text repository, had been a bit fraught. This time our developer decided that he would do the integration right. He created a separate application layer between Worktribe and STORRE, the STORRE queue. This layer allows the library team to control what records are exported and when they are exported, to avoid overwhelming the system. This is also useful for imposing appropriate embargoes after library staff have validated output records.</p> <p>Additionally, our developer created a suite a tools which allows the Library to fix any issues that arise with output records – the output has gone in the wrong collection, the file title was updated during the move to Worktribe, but this change is at variance with the integration, or a record needs to be removed from STORRE (for example, caused by duplicate records in Worktribe). Additionally, he has given the Library the power to create new collections and to create mappings to collections from new organisation units. The developer’s brilliant work means that the integration works smoothly, disasters are averted, and issues are easy to fix.</p>
15:50 16:10	<p>Open Science Implementation on the basis of Research Information Management (Pablo de Castro, University of Strathclyde and euroCRIS)</p> <p>CRIS systems are playing an increasingly relevant role in the implementation of Open Access and Research Data Management (RDM) policies at research-performing organisations. This is not just because of the deep insight these systems provide into the workflows that underpin the institutional research activity, but also because they allow an effective teamworking across institutional research support units, which critically include research libraries.</p> <p>The presentation will describe the way the institutional Pure CRIS is used at the University of Strathclyde in Glasgow to support the implementation of Open Science in collaboration with the researchers themselves and with the institutional Research Office.</p>
16:15 17:00	<p>Panel discussion with all presenters (Chair: Michele Mennielli)</p>