

EUNIS 2019: The Jisc Open Research Hub and its role in open research infrastructure

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Keywords

Research, open access, research data, repository, preservation, standards,

1. Summary

Recent initiatives around open research now require research-performing universities to consider carefully how they manage all their research outputs, including articles, data, theses and software. Jisc has built the Open Research Hub (JORH), which integrates repository, preservation, reporting and storage platforms. This cloud-based service is a community governed, multi-tenant solution for universities and other research institutions to help them manage, store, preserve and share their research outputs. The Hub's current and future development will be directed towards facilitating open research best practice, helping institutions to meet recent recommendations such as FAIR, Plan-S, ORDTF and the COAR's Next Generation Repositories.

2. The Jisc Open Research Hub and its role in open research infrastructure

2.1. Background

Research-performing universities now operate in an environment which requires them to address issues around 'open research', including open access and research data management. The prestige of an institution, and the research undertaken there, is now in part dependent on them complying with policies around the discoverability and availability of research outputs, around the security of personal data and also on the need for institutions to respond to reproducibility and integrity concerns.

2.2. A national solution for the sector

Provision of open research infrastructure can be too difficult for many individual institutions to address alone. Jisc recognized there was appetite to develop a national solution for the UK research sector. Requirements were gathered from researchers and research support staff working at over 70 UK universities. Cost efficiency, community governance, multiple object types, system interoperability, enhanced user experience, reporting modules and automatic preservation functionality were all regarded as important. Working closely with pilot institutions, sector bodies, funders, and systems suppliers, Jisc developed the Open Research Hub (JORH)ⁱ, a service offering repository, storage, preservation, reporting and interoperability components.

2.3. Developing open research infrastructure

Recent initiatives such as Plan-Sⁱⁱ and the Coalition of Open Access Repositories 'New Generation Repositories'ⁱⁱⁱ require additional functionality that many current repositories are unable to provide. There are further requirements for research data to become more FAIR^{iv} (Findable, Accessible, Interoperable and Reusable/Reproducible) and for research data services to be user-friendly and to maximise interoperability and discoverability^v.

Opportunities now exist for JORH to develop its functionality to meet many of these emerging requirements and also to expand to cover other areas of the research life cycle. The multi-tenanted repository permits the deposit of any research output type (article, data, software, thesis), with the facility to link related objects. Furthermore, the underlying data model^{vi} facilitates system interoperability and the flexibility to develop the service in many directions. Challenges such as storage for large or sensitive datasets, cross institutional or disciplinary collaboration, software preservation and demonstrating impact could all be addressed. The service reach can also be extended outside of research, such as for use in special collections and other archives. Possible avenues of development and how these will be considered and prioritised will be explored.

ⁱ <https://www.jisc.ac.uk/open-research-hub>

ⁱⁱ <https://www.coalition-s.org/>

ⁱⁱⁱ <http://ngr.coar-repositories.org/>

^{iv} <https://www.force11.org/group/fairgroup/fairprinciples>

^v <https://www.gov.uk/government/publications/open-research-data-task-force-final-report>

^{vi} <https://github.com/JiscRDSS/Canonical-data-model>

3. AUTHORS' BIOGRAPHIES



Tamsin Burland holds a PhD in Molecular Ecology (1998) and worked as a researcher (both pre- and postdoctoral) in the field for 10 years. She subsequently spent 13 years working in research management at Queen Mary University of London, King's College London and Roehampton University. Her research management experience includes: setting up systems and workflows for research division support services; support for research grants and contracts (pre- and post-award); preparing for and/or analysing the outcome of the last three national research assessment exercises; design, use and procurement of research information management systems (both 'in house' and commercial). She joined Jisc in 2015 and is currently Senior co-design manager within the Research Futures Team, where she leads on HEI engagement for the Jisc Open Research Hub. She is a member of the Association of Research Managers and Administrators.

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John Kaye holds an MSc in Geographic Information Science and is Head of Change for Research at Jisc in the UK. He leads on Jisc's work in developing shared services for research data systems, storage, preservation and metadata. He joined Jisc in 2014 with previous experience working in the British Library's Datasets Programme where he was Social Science Datasets Lead and project coordinator for the EC FP7 project ODIN: ORCID and DataCite Interoperability Network. Prior to the British Library John spent 7 years as a data and policy analyst and manager for education, skills, housing and regeneration in London regional government. <https://www.linkedin.com/in/john-kaye-8b489818/>

Paul Stokes holds a Masters in Technology for Teaching and learning, a BSc in Electronics with Computing Science and is a member of the British Computing Society. He has over 30 years of commercial, SMB and Higher Education experience, specialising in Research Data Management, Technology / Web/ eLearning/ Software Production on projects with fixed end dates and fixed budgets for private and public sector funding providers. Currently, Paul is a Senior co-design manager at Jisc where he leads on Preservation for the Jisc Open Research Hub with a particular interest in costing, sustainability and establishing the value and impact of research data. Past Jisc assignments include a number of FP7 and H2020 projects including 4C, e-Infranet and EUDA. Previously, Paul has worked for The University of Glamorgan (now The University of South Wales), Cardiff University and has been a self-employed consultant. <https://www.linkedin.com/in/paul-stokes-0541863/>

Tom Davey holds an MSc in Informatics, and is User Experience Specialist at Jisc. He works across multiple services, applying design and human-computer-interaction expertise to a range of services and projects across Jisc, the vast majority of which have been in the research and scholarly communications space. For the Jisc Open Research Hub, he has acted as UX lead, collaborating with domain, UX, and software experts to hone the design of the service. Prior to Jisc he worked in Higher Education in developer, and advisory roles around e-Learning tools and web platforms. Before the HE sector he worked as a trainer/teacher/advisory role in Apple regional training centres, specialising in the application of technology (e.g. iPads, VLEs) in schools.