DSpace – CRIS: the leading tool to enable ORCID integration
Identifiers: why are they «so special»?

Repositories are an integral and essential part of the global research infrastructure and rely on a network of systems connected by identifiers, helping the global research community get the best value from this network.
ORCID for users: a unique identifier and fundamental tool

ORCID provides researchers with a **globally unique iD that can be used throughout their scholarly career.**

In an international research environment, your ORCID distinguishes your research output from all other researchers to ensure **consistent and reliable attribution** of your work and **accurate measurement** of your research impact.
ORCID, repositories and PIDs/CRIS: an incredible added value

Repository systems integrations with ORCID;

1. add visibility to repository content and their authors
2. facilitate collaboration and networking
3. Ensure that the repository is kept updated
4. help organizations with institutional reporting systems and national assessment programs.
In this context:
4Science and ORCID

- Largest experience in the DSpace ORCID integration
- Worked with ORCID API since v1.2
- Now based on the ORCID API v3
- Best Certified Service Provider for DSpace-CRIS
The premises of donating ORCID integration from DSpace-CRIS to DSpace Community

DSpace-CRIS provides a full bi-directional integration with ORCID able to push & pull data via the member API.

We implemented a full integration with ORCID systems in the CRIS extension of DSpace we’re creators of.

This integration helps the institutions in enhancing their repository experience as well as improve their repository systems and visibility.

Thanks to this feature, the DSpace-CRIS users enjoy a complete bidirectional integration with ORCID!
Why we did this?

DSpace 7 up to 7.2 was only able to query the ORCID registry to lookup for authors 😊

4Science donates what we did for ORCID integration in DSpace-CRIS to DSpace: community funds was used to (partially) cover adaption and porting of such features.

We did it because we wanted to reflect the ORCID community’s values, as we seek to integrate more commonly used systems for all.
The idea: starting from what we’re already providing

4Science is an ORCID certified service provider

...and our DSpace-CRIS is an officially enabled system with better feasibility features [https://info.orcid.org/orcid-enabled-systems/](https://info.orcid.org/orcid-enabled-systems/)
<table>
<thead>
<tr>
<th>Organization: System Name</th>
<th>Category</th>
<th>Certified Service Provider</th>
<th>Use with Public API</th>
<th>Collect Authenticated IDs</th>
<th>Read from Records</th>
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<td>4Science: DSpace-CRIS</td>
<td>CRIS/RIM</td>
<td>![Certified Service Provider]</td>
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The current stage: state-of-the-art-certified tools
The functionalities we imported

- Use ORCID API v3 ✔️
- Manage sync preferences ✔️
- Link ORCID Account ✔️
- Login via ORCID ✔️
- Synchronization queue ✔️
- Push biography data ✔️
- Push publications ✔️
- Push projects / funding ✔️
- Link publications and fundings ✔️
- Show ORCID badge
- Push employments
- Push educations
- Push qualifications
- Search ORCID ✔️
- Pull biography
- Import publications ✔️
- Discover new publications (WebHook)
- Discover revoked authz
First step: enabling

To enable the main integration (i.e. connect local profile with ORCID and push data to the ORCID registry) you need to be an ORCID Member, get a Member API Key and proper enable and configure the feature in DSpace.

The new ORCID integration requires the activation of two optional features of DSpace 7

1. Enabling of configurable entities feature, at least the Person & Publication entities. Project and OrgUnit are required to synchronize also the funding details

N.b. Entities are only required for writing data to ORCID, not for importing data from ORCID!

To test ORCID integration, it's possible to use the ORCID Sandbox (without being an ORCID member). However, to do so, you must request a Sandbox Member API Key.
Please note the only thing that requires the member API is to push information to ORCID from DSpace. Login with ORCID is also available via public API.
The user does not have to log in to DSpace using their ORCID iD in order to use the other ORCID features. The user can always log in to DSpace through a different login option, and then connect their ORCID iD from within their DSpace profile.
Connect/Disconnect the local profile to ORCID and claim an existing profile
Manage profile visibility

Update Profile

Researcher Profile

Researcher profile associated

Status: PUBLIC

Create new | View | Delete

Log in

or

Log in with Shibboleth

Log in with ORCID

New user? Click here to register.
Have you forgotten your password?
Access the ORCID settings

Multiple authors? Each author can decide whether to push the publication to their ORCID profile.
Import task(s)!

It is possible to import publication from ORCID using the Import from external sources button in the home page. Once you select the Publication entity type you will be able to find ORCID as a Source and you can get the list of publications (ORCID works) that appear in an ORCID profile searching for its ORCID iD.
Note that importing data from ORCID into DSpace will be more limited if you’re using the public API - you would only be able to import public data, whereas with the member API you could import data set to “trusted parties” visibility.
ORCID synchronization preferences & queue,
Permissions

Admins can decide whether a new user with no DSpace account can have an account or not.

Some institutions chose to not enable ORCID login, in order to keep people from logging in who are not associated with their organization.
After this, some differences remain though
A closer look to the differences

These functionalities require a proper hierarchical metadata support
DSpace-CRIS boasts some unique functionalities:

- PUSH of education, qualification, employment
- use of premium APIs

1) to notify the login of publications present in the ORCID profile but not present in DSpace

2) automatic detection if a researcher disconnects the ORCID profile from the DSpace profile using the ORCID UI instead of the local one (so as to give the possibility to reconnect and not leave the system in an error state)

- display of authenticated ORCIDs on publications as well

4Science enhanced DSpace installations and DSpace-CRIS have in addition, compared to DSpace 7.4 version of the community

1. display of authenticated ORCIDs on the researcher's profile

2. compliance with ORCID guidelines with the impossibility of manually manipulating the ORCID ID

3. informational messages to learn more about the ORCID initiative
Differences between DSpace and DSpace-CRIS: The extra features in DSpace-CRIS

• DSpace-CRIS
  • extended version of DSpace providing more advanced features
  • allows an easier and decentralized management of the repository and handles data complexity
  • possibility to apply and support very granular security up to the single metadata value for the single record
  • provides some unique features such as the push of employment, education & qualifications details often imported in DSpace-CRIS from a legacy application that cannot be implemented in DSpace
See where this integration story goes with us.

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