

Irene Buso
4Science
Business Development Manager

4SCIENCE
Share your knowledge

4SCIENCE

Share your knowledge

DSpace – CRIS:
the leading tool to enable
ORCID integration

euroCRIS Strategic Membership Meeting 2022
November 30 - December 2 2022,
Nijmegen, The Netherlands

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

A glowing lightbulb with a globe inside, symbolizing an idea or innovation. The lightbulb is the central focus, with a warm, orange glow emanating from it. The globe inside the bulb is a simple, stylized representation of the Earth. The background is a textured, brownish-orange surface, possibly wood or stone, which adds to the warm and thoughtful atmosphere of the image.

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!

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

Why we did
this?

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/>

Organization: System Name	Category	Certified Service Provider	Can Use with Public API	Collect Authenticated IDs	Read from Records	Add Affiliations	Add works	Add Funding
DSpace CRIS	CRIS							

Organization: System Name ▲	Category ⇅	Certified Service Provider ⇅	Use with Public API ⇅	Collect Authenticated IDs ⇅	Read from Records ⇅	Add Affiliations ⇅	Add works ⇅	Add Funding
--------------------------------	------------	------------------------------------	--------------------------------	-----------------------------------	---------------------------	-----------------------	----------------	----------------

4Science: DSpace-CRIS	CRIS/RIM							
--------------------------	----------	------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

4Science:DSpace	CRIS/RIM							
-----------------	----------	------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

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 properly 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.

Link profile with ORCID

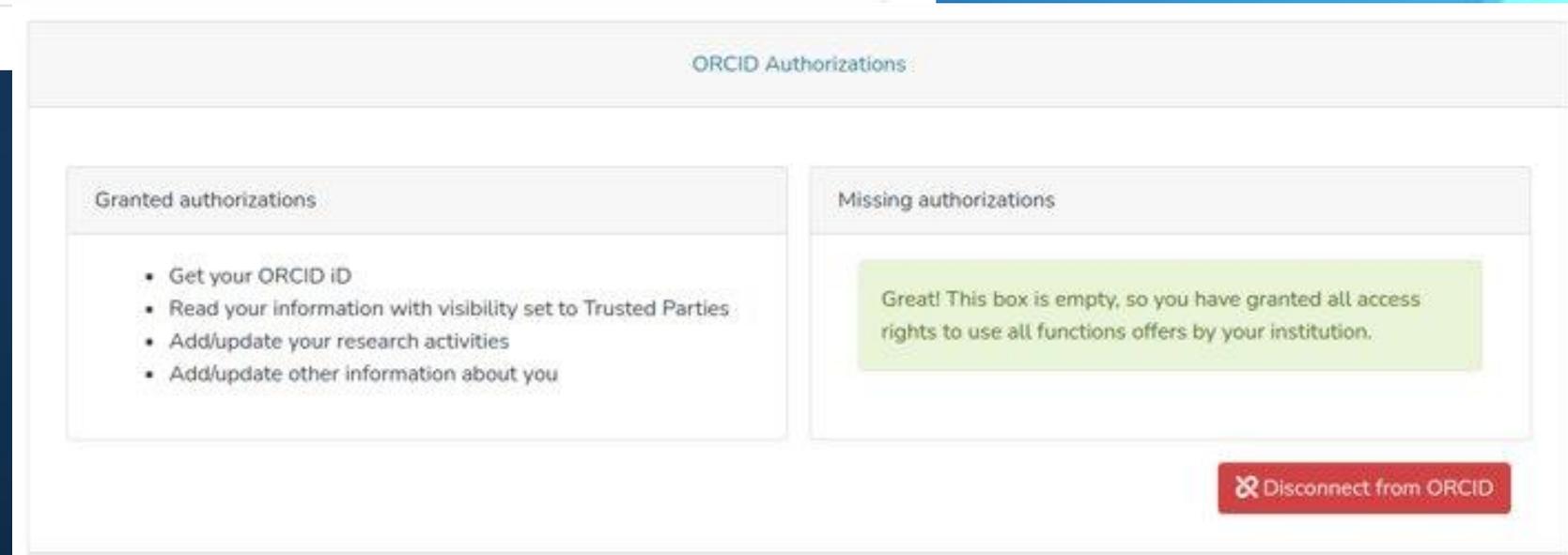


ORCID Authorizations

 No ORCID iD associated yet. By clicking on the button below it is possible to link this profile with an ORCID account.



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



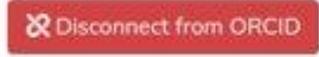
ORCID Authorizations :

Granted authorizations

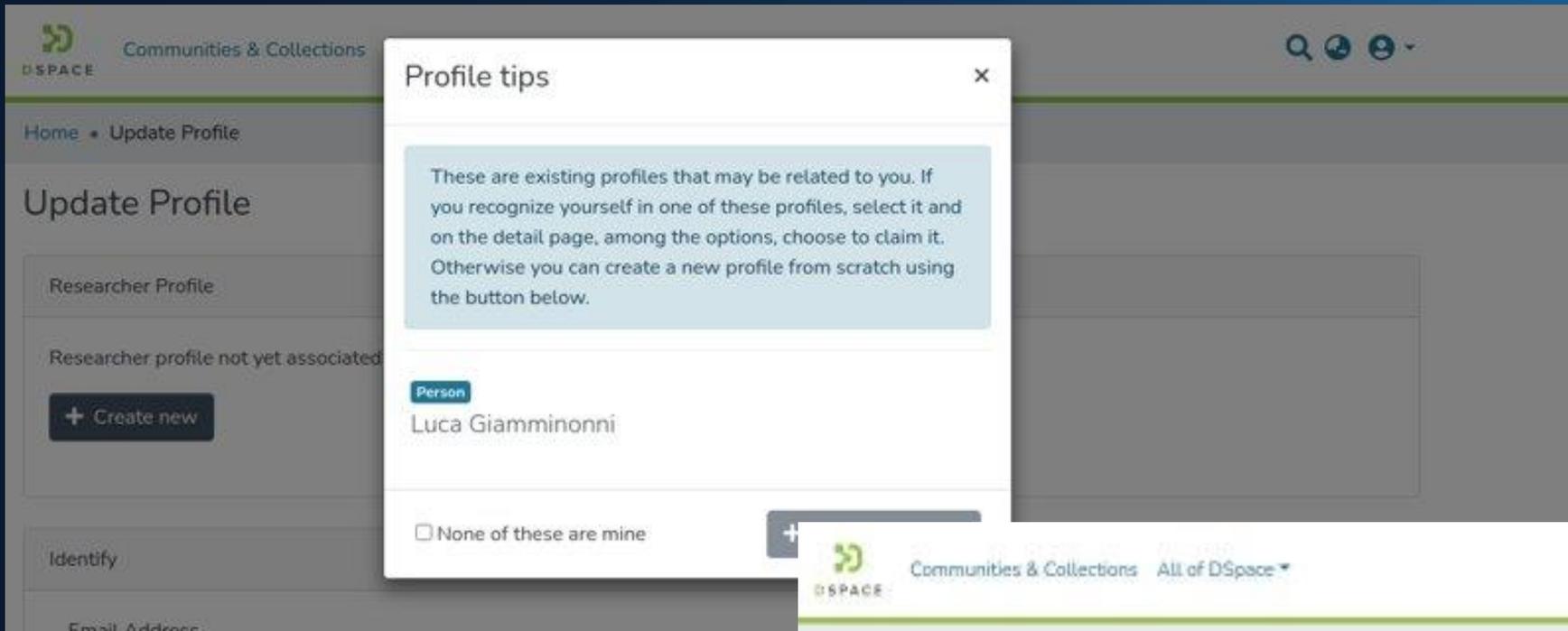
- Get your ORCID iD
- Read your information with visibility set to Trusted Parties
- Add/update your research activities
- Add/update other information about you

Missing authorizations

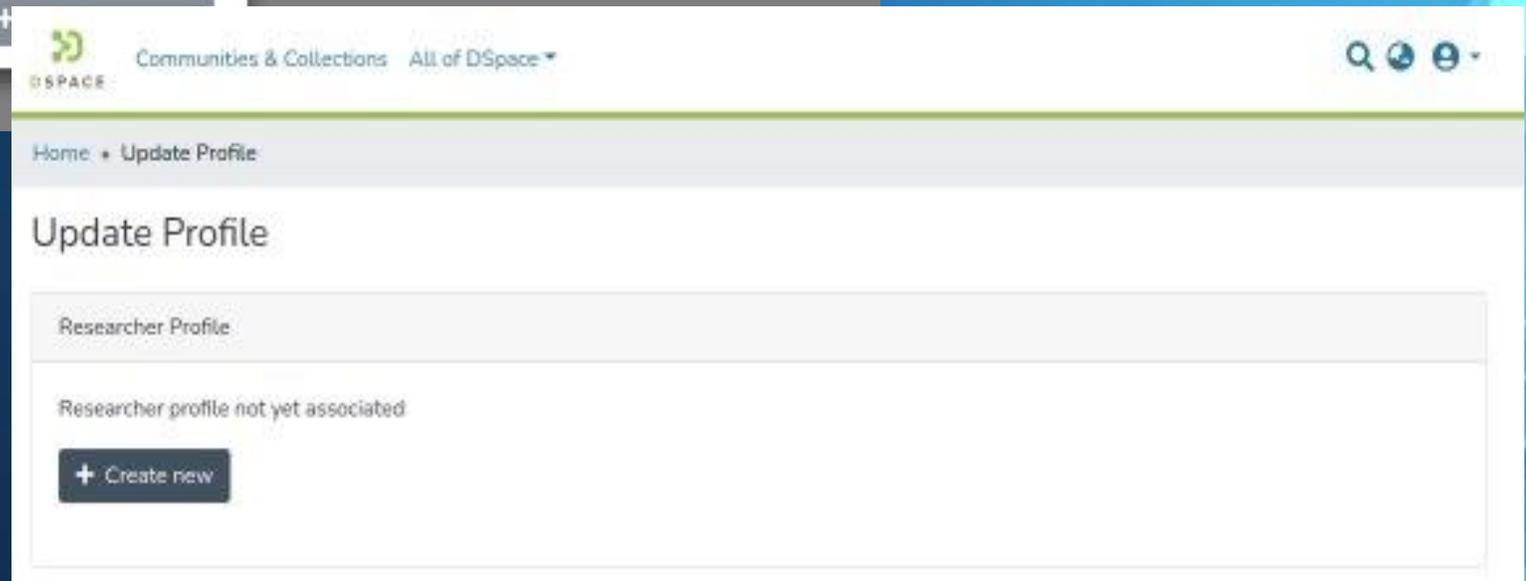
Great! This box is empty, so you have granted all access rights to use all functions offers by your institution.



Creation of a user profile



The screenshot shows the DSpace 'Update Profile' page. A modal window titled 'Profile tips' is open, displaying the following text: 'These are existing profiles that may be related to you. If you recognize yourself in one of these profiles, select it and on the detail page, among the options, choose to claim it. Otherwise you can create a new profile from scratch using the button below.' Below the text, there is a 'Person' tag and the name 'Luca Giamminonni'. At the bottom of the modal, there is a checkbox labeled 'None of these are mine' and a '+' button. The background page shows the 'Update Profile' heading, a 'Researcher Profile' section, and a 'Researcher profile not yet associated' section with a '+ Create new' button.



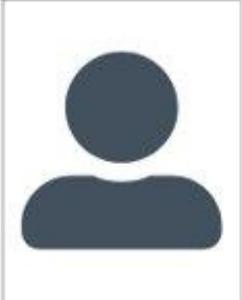
This screenshot shows the 'Update Profile' page without the modal window. The page header includes the DSPACE logo, 'Communities & Collections', and 'All of DSpace'. The main heading is 'Update Profile'. Below it, there is a 'Researcher Profile' section and a 'Researcher profile not yet associated' section with a '+ Create new' button. The page also features a search bar and user profile icons in the top right corner.

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

Home • CRIS • Person • Luca Giamminonni

Person: Luca Giamminonni



[Full item page](#)

 Communities & Collections Statistics All of DSpace ▾

Home • Test community • People • Sample Researcher

 Communities & Collections Statistics All of DSpace ▾

Home • Objetos relacionados • People 2 • Famous Researcher

[← Back](#)

ORCID Authorizations

Granted authorizations

- Get your ORCID iD
- Read your information with visibility set to Trusted Parties
- Add/update your research activities
- Add/update other information about you

Missing authorizations

Great! This box is empty, so you have granted all access rights to use all functions offers by your institution.

[✕ Disconnect from ORCID](#)

ORCID Synchronization settings

Synchronization mode

Please select how you would like synchronization to ORCID to occur. The options include "Manual" (you must send your data to ORCID manually), or "Batch" (the system will send your data to ORCID via a scheduled script).

Synchronization mode

Manual ▾

Publication preferences

Select whether to send your linked Publication entities to your ORCID record's list of works.

Funding preferences

Select whether to send your linked Project entities to your ORCID record's list of funding information.

Profile preferences

Select whether to send your biographical data or personal identifiers to your ORCID record.

ORCID Authorizations



No ORCID iD associated yet. By clicking on the button below it is possible to link this profile with an ORCID account.

[Connect to ORCID ID](#)

Manage profile visibility

Update Profile

Researcher Profile

Researcher profile associated

Status:

PUBLIC

+ Create new

i View

🗑 Delete

🔍  [Log In](#) ▾

dspacedemo+admin@gmail.com

.....

➔ 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.

The screenshot shows the DSpace user profile page for Andrea Bollini. The page includes a navigation bar with 'Statistics', 'Communities & Collections', and 'All of DSpace'. The breadcrumb trail is 'Home • CRIS • Person • Bollini, Andrea'. The profile information is displayed in two columns: a left column with a profile picture and email address, and a right column with job title, last name, and first name. A red box highlights the 'ORCID' button in the top right corner of the profile area. A 'Full item page' button is located below the profile information. At the bottom, there is a search bar and a mobile menu icon.

DSpace Statistics Communities & Collections All of DSpace

Home • CRIS • Person • Bollini, Andrea

Person:
Bollini, Andrea

ORCID

Job Title
CTO

Last Name
Bollini

First Name
Andrea

Full item page

Email Address
andrea.bollini@4science.it

Search the repository ... Search

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.

The screenshot shows the DSpace web interface for importing a publication. At the top, the DSPACE logo and navigation links 'Communities & Collections' and 'All of DSpace' are visible. The main heading is 'Import a publication from an external source'. Below this is a search input field containing the ORCID ID '0000-0002-1622-9796', a dropdown menu set to 'ORCID', and a 'Search' button. The search results section is titled 'Search Results' and indicates 'Now showing 1 - 3 of 3'. Three results are listed, each with a document icon and a title: 'Naturally enhanced neutralizing breadth against SARS-CoV-2 one year after infection.', 'Publication Metadata in CERIF: Inspiration by FRBR', and 'The Impact of COVID-19 on the Optimal Management of Osteoporosis.'. At the bottom, there is a button labeled '< Back to MyDSpace'.

Import publications from ORCID

Import a publication from an external source

0000-0003-3363-7801 ORCID Search

Search Results

Now showing 1 - 2 of 2

- The History of ORCID
- Quantum Collisions and Confinement of Atomic and Molecular Species, and Photons: Select Proceedings of the 7th Topical Conference of ISAMP 2018 (Springer Proceedings in Physics)

[← Back to MyDSpace](#)

<https://sandbox.orcid.org/0000-0003-3363-7801>

Is this you? [Sign in to start editing](#) Printable version

Published Name

Paula's Demo ORCID Record

Name
Paula Demain

Activities Collapse all

- > Employment (3) Sort
- > Education and qualifications (1) Sort
- > Membership and service (3) Sort
- ∨ Works (2) Sort

Quantum Collisions and Confinement of Atomic and Molecular Species, and Photons: Select Proceedings of the 7th Topical Conference of ISAMP 2018 (Springer Proceedings in Physics)

2019-09 | book
ISBN: [9789811399688](#) Show more detail

Source: Paula's Demo ORCID Record

The History of ORCID

preprint
DOI: [10.23640/02243.9252988](#) Show more detail

Source: Paula's Demo ORCID Record

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,

ORCID Synchronization settings

Enable 'Manual' Synchronization mode to disable batch synchronization, so you must send your data to ORCID Registry manually

Synchronization mode

Synchronization mode

Manual

Publication preferences

Disabled

All publications

Funding preferences

Disabled

All fundings

Profile preferences

Affiliation

Education

[Update settings](#)

ORCID Registry Queue

Now showing 1 - 5 of 43

		Description		
		What can we learn about the archaeological record combining quantitative analysis and ethnoarchaeology; issues from a work in progress		
		Origin and distribution of Daltonism in Italy		
		COVID-19 vaccine testing in pregnant females is necessary		
		A global survey of potential acceptance of a COVID-19 vaccine		
		Color blindness (daltonism) in the light of genetic studies		

« 1 2 3 4 5 6 7 8 9 »

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

Push
employments

Push
educations

Push
qualifications

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 ORCID IDs 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 ORCID IDs 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

Follow us on LinkedIn  : 4Science
Follow us On Twitter: @4ScienceIT



See where this integration story goes
with us