



How to find confidence in openness?

Boost your safety and security

What about security achievements in –CRIS Open Source solutions?

Our aim is to explore the relation among openness and security in DSpace-CRIS from several perspectives.

A challenge

Adopting institutions want and have to feel secure about their entire ecosystems.

In the Open Source world to which DSpace-CRIS belongs, reputation - as we know - counts more than anything else: that's why it is truly important to show concrete results applied to security.



Security in Openness: just a feature?

First of all, it must be noticed that the term 'security' of a CRIS system does not refer to a single function in isolation from the others, but to the entire implementation (and maintenance/update) ecosystem of the entire software.

Commercial software can be less of a target due to the non-exposure of its vulnerabilities?

No.

Keeping the proprietary source code secret makes financial sense for owner-vendors as a way to encourage customers to buy products and support, but it is hardly a strong security measure.

So, is *simply*
being open
source a
guarantee of
security?

No.

However, the fundamental point that distinguishes open source from the commercial model of software should be noted: the commercial model provides code secrecy.

What does
this fact
imply?

The secrecy of the code, typical of commercial solutions, prevents vulnerabilities from being identified and fixed in a timely manner.

And what's
the main
difference
with an OS
solution?

Thanks to the support of an entire and vivid community as it is for DSpace-CRIS, identification of bugs and security issues, fixes and patches happen very quickly.

Waiting for priorities driven by commercial reasons?

Proprietary codes have very long development cycles, and proprietary dynamics often shift the priorities of bug fixes over very long periods of time (with a limited number of developers working on them).

Open source software, especially if maintained and developed by a large community, including one or more companies for a more professional approach, is very exposed and visible (the example of DSpace, one of the most widely adopted software IRs in the world), and this generates world attention to a constant and improving development of the code in a very short period of time, without any constraint of 'work cycles'.

Why we choose Open Source code?

In brief, open-source code is the best choice because it ensures the following features:

- As **source code is easily available**, programmers **can contribute, modify, distribute, and enhance** the code for any purpose.
- Code development is shared by a large community of experts, leading to faster release of versions and new features.
- The roadmap is shared among users, leading to release useful features for the community, not driven by commercial interests.
- **Code security** is the main reason that it is the most favorable option for developers. It is far more less vulnerable than others and security issues are detected and corrected immediately.
- We know that the most important element of an IT infrastructure are the servers and their operating systems: in most parts of the world, Linux is chosen to manage the servers, and the main reason is that Linux is the most secure operating system in the world.

Without openness...

We think there's no sustainability process. Closed source application platforms are in a tailspin.

- Third parties supply chain that makes difficult to identify even eventual failures?
- Vendors can end-of-life your application without consulting you (Adobe's retirement of Flash)?
- Endless negotiations you're forced to?



No, thanks.

We'd like to aim to an unlimited deployment lifetime of a solution.

To a more diverse and *community-led* community of contributors, constantly improving.

For our Clients, but most of all, **with them.**

We'd like to suggest the best of both these two worlds.
Even about ethical aspects, we'll try to offer anytime;



Ok, what
about
guarantees?

- **A service-level agreement:** a promise, backed by our adopters and Clients, to respond their inquiries on an agreed-upon timeline. We can fix it in a timely manner if the community doesn't. We promise our engagement in this.
- **Legal assurances:** legal guarantees about the provenance of the software and indemnification against intellectual property claims caused by its use in your applications. Is it Open Source? Yes. You contribute. You use it for free. No one can withdraw it from you, nor us, nor third parties.
- **Support and maintenance:** we want to be accountable in keeping the software you adopted working well, to resolve defects, and address urgent security issues.

Who we are

4Science, an Itway Cybersecurity Group organisation, provides solutions for **research information & data management and for cultural heritage**.

Certified Partner of DSpace and a major contributor to DSpace, co-leading DSpace 7 development, our solutions include DSpace-CRIS, DSpace-GLAM, OJS and Dataverse, our services range from installation and configuration to hosting and maintenance, from system integration to customisation and consultancy. Our solutions support compliance with key international standards, from OpenAIRE to ORCID, from CERIF to IIRF, and enable implementation of the transnationally important policies of Open Research, Research Impact and Digital Preservation.



Our certifications

Certification and reliability is not a matter of compromise when you are committed to Open Science: 4Science's key Certifications provide a high level of assurance to clients and partners:



ISO/IEC
27001:2013,
27017:2015,
27018:2019,
and ISO/IEC
9001:2015

DSpace-CRIS: a comprehensive, free and open source CRIS



DSpace-CRIS is the **first free, open-source extension** of DSpace for the Research Data and Information Management ever created, originally developed with the **University of Hong Kong**.

In contrast to other (commercial) CRIS/RIMS, DSpace-CRIS has the institutional repository at its core, providing high visibility on for all scholarly communication assets

Supports the entire Research ecosystem (papers, journals, people, organisation units, projects etc.) **in a single solution**



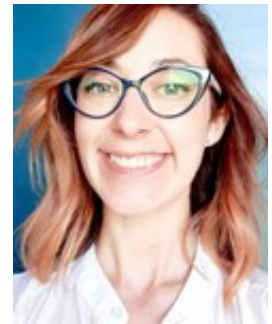
Designed for:

- Universities' Research and Library System Managers, IT directors
- Researchers and Research Information Managers, Research Scientists
- all stakeholders in the scholarly endeavour, including public via open access

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Building a sustainable future for Open Source repositories



Irene.buso@4science.com