



Assessing community readiness and adoption of open science infrastructure

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Pronouns: she | her | hers

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Imagine a world in which...

- research information is openly available
- researchers are accurately credited for their contributions
- research institutions are accurately cited
- funders can track impact of funding and resources
- publishers can streamline submission and review processes
- accurate search and discovery tools are available
- researchers can easily share electronic information about their contributions and affiliations
- **evaluators have access to open data to study knowledge flows**

An aerial photograph of a suburban neighborhood. The image shows a grid of streets with houses on either side. The houses are mostly two-story, with varying roof colors like grey, brown, and white. There are green lawns, trees, and some swimming pools visible in the backyards. The overall scene is a typical residential area.

**In the world we live in, research
is hampered by lack of openness
and transparency**

**To address these challenges,
the research community is
making major investments in
open science**



Open it up with identifiers!

Open digital identifiers make it possible to accurately map information between systems and discern the graph of connections between

people, places, and things

that describes the research and innovation ecosystem



ORCID Vision

ORCID's vision is a world where all who participate in research, scholarship, and innovation are uniquely identified and connected to their contributions across disciplines, borders, and time.

We each play a role

For the open science vision to become a reality, each part of the community must participate in building information infrastructure that enables sharing of information about research outputs and evaluation of their impact



Assessing readiness

Goal: Determine how – and when – to engage with communities to build open identifier infrastructure

- **Step 1.** Decide whether to evaluate – scope and prioritize
- **Step 2.** Assess technology readiness
- **Step 3.** Assess awareness of open identifier infrastructure
- **Step 4.** SWOT and situation analysis



Scope and Prioritize

Goal: Ensure that we record the rationale for undertaking an evaluation, and frame its context and significance

- Describe the evaluand
- What is our relationship with the evaluand
- What is the goal of the evaluation
- What do we already know about the evaluand
- What partners and information sources are available
- What are the risks of not undertaking the evaluation



Assess Technology Readiness Level

Things to keep in mind when working with TRLs:

- TRLs do not indicate that the technology is right for the job
- TRLs are time specific
- TRLs are context specific
- The TRL scale is a qualitative, ordinal scale
- TRL assessments rely on assumptions
- The TRL for a technology can stagnate or decrease



Assessing technology readiness

Goal: Develop rationale for specific actions in an evaluand community, such as leveraging high TRL systems or organizations to enable and incentivize action by members of the evaluand community (or in peer communities).

- Map the primary research information systems used by the evaluand
- Assign TRLs to system components
- Evaluate technology context



Open Identifier Awareness

Technology alone doesn't drive adoption; a community must also understand how identifiers work and the benefits they provide.

- What degree of positive advocacy are influencers providing in this community
- How much organic support are we seeing
- What level of understanding is there about open identifiers
- What level of negative advocacy are influencers providing in this community
- How widespread are concerns about open identifiers
- What myths or misunderstandings are in play



SWOT and Situation Analysis

Identify strengths and weaknesses in our current relationship with the evaluand and the support we offer to their community

- **Economic.** Does the economic situation present a barrier for the evaluand to invest in building community skills and technology?
- **Political and legal.** Are there national policies regarding open science, open infrastructure, research evaluation, or persistent identifiers?
- **Cultural and Social.** What importance is attached to the role of the individual in research? How are intellectual freedom, the value of collaboration, or the benefit of mandates and authority perceived?
- **Priority and value.** How will this evaluand use identifiers to strengthen their research information ecosystem? Will they act and maintain commitment and can we commit resources to a prolonged engagement?



From Context to Strategy

Our evaluation is intended to be action-oriented and geared toward providing a robust foundation for a clearly articulated, actionable strategic plan.

- What would success look like and how could it be measured? Do we have the necessary information sources to understand progress?
- What barriers are there to our desired goals? What warning signs should we look for?
- What are the time-sensitive actions we could take?
- What dependencies are there in our plan? Do we have the right partnerships or support in place within the evaluand community?



Learnings

- Need to train staff in evaluation process
- Information sources are sparse, analysis requires a lot of consultation; local language knowledge and cultural appreciation is critical
- Where open science policies are in place, awareness of identifiers (but not always best practice adoption) is often present
- **There is no silver bullet solution.** Technology implementation requires awareness and skills building.
- **Open is not free.** Each actor in the community must invest in open infrastructure to realize the value and return of open science.





Want Better Data?

Help make open research information a reality!

- Encourage the adoption of open identifiers
- Use identifiers in your work and help us improve our services



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