RDA for Research Evaluation

Celebrating A Decade of Data
RDA community cross-fertilisation workshop

Version: July 2023

ABOUT THE WORKSHOP

The community cross-fertilisation workshop, 'RDA for Research Evaluation', brought chairs and members of RDA Working Groups (WGs) and Interest Groups (IGs) together with members of the wider research data community to share and discuss challenges, solutions and initiatives associated with Research Evaluation. This workshop was a collaboration with the Australian Research Data Commons (ARDC), with Liz Stokes (Skilled Workforce Development; ARDC) as guest co-host. The key findings of the workshop summarised herein will be used to direct the future strategy of the RDA community. Read more about the community cross-fertilisation workshop series in commemoration of the RDA's 10th Anniversary.

RESEARCH EVALUATION CHALLENGES

Culture and recognition challenges

- A change within the evaluation culture of primary actors is needed by e.g. i) research organisations and communities and ii) evaluators, reviewers (especially actors used to less current methods).
- Culture of research does not support, recognise and reward diversity of research contributions.
- Research evaluation should be based on quality, productivity and impact; however, evaluation tools do not currently support this.
- It is harder for less-well funded institutions to support good research data management practices.
- Mechanisms to recognise open science activities at the same level as publications are needed, e.g. making data FAIR and sharing of data.
- More recognition of RDA contributions is needed.
- There is a lack of motivation or incentives to submit and share data in institutions.
- Public central authorities sometime prohibit their researchers from sharing data.
- Open science networks need support building presence on a range of social media platforms.
- Distribution of tasks and responsibilities are not clear and the function of open science specialists needs evaluation (data scientists, data managers).

Challenges with evaluating non-traditional outputs

- Evaluation of research needs to evolve to recognise the diversity of outputs and there is a need to assess how to measure their impact.
- Non-traditional outputs e.g. research data and instruments are: i) not discoverable, recognised or rewarded; ii) less easy to evaluate. This results in over-emphasis on convenient assessment proxies for research credibility, quality and impact (e.g. journal impact factor, reputation).
- Tracking data citations and linking non-traditional outputs to traditional ones is challenging.

PARTICIPATING GROUPS & WORKSHOP LEADS*

Evaluation of Research IG
Nominated lead: Emma Crott

Outputs and achievements:
- *Successful BoFs: P19 & P20*
- *IG established*
- *Liaison with CoARA*
- *P21 session accepted*

See **community group card**

Sharing Rewards and Credit (SHARC) IG
Nominated lead(s):
Anne Cambon-Thomsen

Outputs and achievements:
- *A grid of evaluation of FAIR (Romain et al. DSJ).*
- *A survey on Open Science activities rewarding mechanisms*
- *P20 Draft recommendations*

See **community group card**

Data Policy Standardisation and Implementation IG
Nominated lead: Rebecca Taylor-Grant

Outputs and achievements:
- *Supporting output: Developing a Research Data Policy Framework for All Journals and Publishers*

See **community group card**

*Workshop leads collected challenges, solutions and initiatives in preparation for the workshop and explained them during the workshop on behalf of their group.

- There is a lack of suitable policy, tools, guidelines, training, funding and incentives enabling non-traditional outputs to be assessed and rewarded in time-constrained research assessment contexts.

Disciplinary challenges

- Identification of meaningful qualitative criteria beyond bibliometrics is needed to enable research impact measurement; this may add a burden on researchers and evaluators when qualitatively assessing outputs.
- Consideration of discipline-specific maturity assessment is needed.
- A common understanding across all disciplines of the meaning of open science is lacking.

- There is a lack of consensus on: i) what should be measured or evaluated; ii) what constitutes credible, trustworthy and quality research.
- Comparison across disciplines requires weighting aspects according to discipline relevance.
- Reconciliation of the need to protect sensitive data (e.g. medical) with the need to share openly.

Aligning and implementing open science

- There is a need to: i) facilitate easy, non-burdensome open science practice; ii) align open science policies and evaluation across countries and organisations.
- Dialogue between stakeholders on open research evaluation is needed to avoid pitfalls and identify best practices.
- The financial aspect of implementing open science is a barrier and source of inequality.
- Open science practices are not embedded in funding criteria, specifically on publishing data.
- Automation of evaluation requires: i) open and non-proprietary evaluation tools; ii) manual benchmarking and verification of automated evaluation outputs.

SOLUTIONS TO ADDRESS THE CHALLENGES

Culture and recognition

- Recognition of potential biases in evaluation methods (especially less up to date ones), and recommendations for alternative approaches.
- Evaluation panels, at all career stages, should be educated and trained in the way assessment should be carried out to: i) remove or negate potential for bias; ii) value the specific institutional or research groups' mandates.
- Political pressure towards open science to encourage / obligate data sharing.
- Set examples / precedents: open science advocates should ensure they apply the open science practice they advocate for.
- Ongoing top-down pressure combined with internal community development and growth.

Community collaboration and discourse

- Increased presence of RDA groups at relevant events such as the EuroScience Open Forum.
- Leverage the diversity and expertise of the RDA community to identify issues, gaps and solutions, and to share/receive feedback.
- RDA plenary sessions on this topic; RDA award for best open science evaluation implementation.
- Sharing success and failure stories to stimulate exchanges via e.g: a register/database of stories and existing initiatives; an FAQ on open science in research evaluation; a series of webinars.

Surveys, audits, studies

- To establish evidence-based solutions, success and failure indicators are needed. A study to understand when and why something does not work could balance out the success-only bias.
- Survey on where/how research outputs (other than publications and citations) are included in institutional reporting; could provide a basis for funding allocations and career progression.
- An audit of existing frameworks and the extent to which they include/assess open science/data.
- Qualitative study into the pressures of sharing/publishing data from a range of stakeholders; this could be tailored to specific discipline and geographic contexts.
- A study to understand the relationship between open science and research integrity; this would of particular importance for research evaluation.
- A special issue of Data Science Journal (in collaboration with CODATA) on this topic.

Aligning and implementing open science

- Include non-traditional types of outputs (e.g., research data) in evaluation at different levels (projects; research institutes).
- Open should be made the default option; request reasoning if it is not open; query what could be open (e.g. metadata, aggregated data).
- Publishers and infrastructure providers (e.g. repositories) can facilitate open science by providing proper metadata and linkages.
- Allocate funds to open science in funding calls.
- Map resources/tools to research evaluation, to encourage collaboration between communities that maintain those resources.
- Restriction of outputs considered in evaluation to those that are open; noting that feasibility / acceptability is different between disciplines.

ACTIONS FOR THE RDA COMMUNITY

Share both success and failure stories and examples of solutions to challenges; identify opportunities and funding to develop a register of experiences.

Consider and propose mechanisms for mandating open research outputs in the evaluation process.

Propose sessions to the American Association for the Advancement of Science (AAAS), World Science Forum and ESOF meetings; RDA to consider a plenary session on research evaluation.

Propose Memoranda of Understanding, agreements and projects with programs and initiatives.

Set examples and precedents in open science practice.

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INITIATIVES & RESOURCES OF INTEREST

Fora, networks, partnerships, foundations, academies

- Coalition for Advancing Research Assessment (CoARA)
- Declaration on Research Assessment (DORA)
- The Latin American Forum on Research Assessment (FOLEC-CLACSO)
- Dutch initiative: "Room for everyone's talent"
- HuMetrics HSS
- RDA groups and associated outputs and initiatives, e.g. SHARC IG resources (open for community contribution): Examples of open science policies & Examples of rewarding or recognition initiatives/tools
- RDA Organisational and Regional Assemblies
- Global Research Council Responsible Research Assessment Working Group
- International Network of Research Management (INORMS)
- French National Open Science Plan
- Young Academy of Europe (YAE)
- Global Young Academy (GYA)
- The Belmont Forum
- International Association of Universities
- Wellcome Trust
- EuroScience Open Forum

Projects; programs

UK: UKRI Future Research Assessment Program

Europe

- Higher Education Leadership Initiative for Open Scholarship (HELIOS)
- European Research Area policy agenda
- ALLEA (All European academies)
- EuroScience

Global

- UNESCO Open Science Axes
- International Network for Governmental Science Advice (INGSA)

Publications and articles

- Hrynaszkiewicz et al. (2023). A survey of how biology researchers assess credibility when serving on grant and hiring committees
- DORA case studies
- DORA Rubric for Analysing Institutional Conditions and Progress Indicators
- UNESCO Recommendation on OpenScience

Funding/publishing/organisational associations

- Funding: ScienceEurope, cOAlition S,
- Organisational: European Universities Association, League of European Research Universities
- Publishing: OASPA; scholarly communication infrastructure providers e.g. COAR, OpenAIRE

WORKSHOP PARTICIPANTS

1. Ginny Barbour, Open Access Australasia; DORA, Australia. 0000-0002-2358-2440
2. Lesya Baudoin, Inserm, France.
3. Serge Bauin, le Centre national de la recherche scientifique (CNRS), France.
4. Anne Cambon-Thomsen, le Centre national de la recherche scientifique (CNRS), France. 0000-0001-8793-3644
5. Caroline Corbières, ENS Paris-Saclay, France. 0000-0002-4416-9479
6. Emma Crott, Australian Research Data Commons, Australia. 0009-0000-1416-184X
7. Laurence El Khouri, le Centre national de la recherche scientifique (CNRS), France. 0000-0001-5575-3876
8. Francoise Genova, RDA France/Observatoire Astronomique de Strasbourg, France. 0000-0002-6318-5028
9. Neko(ZIYI) He, China National GeneBank, P.R.China. 0000-0003-0024-2459
10. Iain Hrynaszkiewicz, PLOS, UK. 0000-0002-9673-5559
11. Joanna Janik, le Centre national de la recherche scientifique (CNRS), France. 0000-0001-7587-2995
12. Monica Marin, Research Institute for Quality of Life, Romania. 0000-0002-5064-9137
13. Marcel Meistring, Helmholtz Open Science Office, Germany. 0000-0001-6347-9926
14. Dagmar Meyer, European Research Council, Belgium. 0000-0002-2094-0230
15. Remedios Melero, Consejo Superior de Investigaciones Científicas (CSIC), Spain. 0000-0002-1813-8783
16. Ugo Moschini, Italian Institute of Technology, Italy. 0000-0002-8006-6039
17. Elizabeth Newbold, Science and Facilities Technologies Council (STFC), UK. 0000-0002-8255-9013
18. Ana Proykova, RDA Bulgaria/Sofia University, Bulgaria. 0000-0002-5808-1822
19. Claire Rye, New Zealand eScience Infrastructure (NeSI), NZ. 0000-0003-4630-7836
20. Hanna Shmagun, Korea Institute of Science and Technology Information (KISTI), Korea. 0000-0001-6271-2976
21. Graham Smith, Springer Nature, UK. 0000-0001-9520-0109
22. Rebecca Taylor-Grant, F1000, UK. 0000-0002-7614-0806
23. Marta Teperek, The Dutch Research Council (NWO), The Netherlands. 0000-0001-8520-5598
24. Mogens Thomsen, Inserm, France. 0000-0002-4546-0129

For more information about the RDA community cross-fertilisation workshop series, please contact:

- Connie Clare, Community Development Manager (connie.clare@rda-foundation.org);
- Kathryn Barker, Community Development manager Australasia (kathryn.barker@ardc.edu.au)

To become a member of the RDA, register here.