



Open research information for responsible research assessment

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Universiteit
Leiden
The Netherlands



Dutch research institutions and Elsevier initiate world's first national Open Science partnership

Tuesday 19 May 2020

VSNU, NFU, NWO and Elsevier have agreed publishing, reading and open science services to support Dutch research and innovation ambitions

The Association of Universities in the Netherlands (VSNU), The Netherlands Federation of University Medical Centres (NFU), The Dutch Research Council (NWO) and Elsevier, a global leader in research publishing and information analytics, have formed a novel partnership that includes publishing and reading services as well as the joint development of new open science services for disseminating and evaluating knowledge. The partnership runs until 31 December 2024.

This has led to the agreement that VSNU, NFU, NWO and Elsevier are pleased to announce today, and which comprises:

1. **Open Access Publishing and Reading services.** This is a national deal that covers reading rights to quality, peer-reviewed content across Elsevier's extensive portfolio of journals and supports the aim of 100% open access publishing for all members of the consortium. From today, 95% of Dutch articles published in Elsevier journals can be made immediately open access through this agreement. The vast majority of Elsevier's journals already offer an immediate open access option and, as part of this agreement, the company has committed to work towards immediate open access options across all remaining titles.
2. **Open Science Services for Research Intelligence and Scholarly communication.** Elsevier will work with the Dutch partners to co-develop new services that help disseminate and evaluate knowledge. The parties will undertake a number of pilot projects to refine and adapt these services to meet the needs of the Dutch Research Institutions and to support the broader ambition of public engagement with science. These pilots will be conducted according to the collaboration principles as mentioned above.

President of Delft University of Technology: “This deal is ... a **prelude to a public knowledge base** for information about scientific output”

President of Dutch Research Council: “This agreement is ... a **major breakthrough** for open science in general”

Minister of Education, Culture and Science: “This deal ... represents a **beautiful step toward Open Science**”

Leiden Madrics

HOME CONTRIBUTORS ABOUT



Sarah de Rijcke
Professor of Science,
Technology, and
Innovation Studies



Elsevier and the Dutch Open Science goals

May 20, 2020 • Science & Society • 1 comment • 6 min read

The VSNU, NFOU, NWO and Elsevier have announced a national deal that bundles Open Access and data services. Is the deal consistent with Dutch Open Science goals, and will undesirable platform effects be avoided?



ScienceGuide

Dutch open science deal primarily benefits Elsevier

Analysis | door Sicco de Knecht

29 juni 2020 | The 'unique' deal between Elsevier and Dutch universities is built upon a very specific definition of open access and open science. A definition that mostly serves the publishing company.



Foto: Actualitté (CC BY-SA 2.0)

POLICY FORUM | SCIENTIFIC PUBLISHING

In pursuit of open science, open access is not enough

Claudio Aspesi¹, Amy Brand^{2,3}

+ See all authors and affiliations

Science 08 May 2020:
Vol. 368, Issue 6491, pp. 574-577
DOI: 10.1126/science.aba3763

As OA continues to gain ground, some publishers are seeking to protect their profitability by accelerating investment in research infrastructure and data analytics, and by bundling these and other offerings with journal access. For example, Elsevier announced a controversial framework agreement in late 2019 with several Dutch academic and funding bodies that ties a presumed zero increase in spending for content access with prefunded open access for affiliated authors and a commitment to partner on the development of new research intelligence tools and services. Although the details are not public, the implication is that these universities are contributing institutional metadata for Elsevier product development in exchange for OA publication by their researchers (5). Ownership of the data may remain with the universities, though it is unclear whether they maintain perpetual access rights to analyses based on that data (6).

Outline

- Responsible research assessment
- Open metadata of scholarly outputs
- Open Knowledge Base (OKB) for the Netherlands



Responsible research assessment

Bibliometrics: The Leiden Manifesto for research metrics

Diana Hicks, Paul Wouters, Ludo Waltman, Sarah de Rijcke & Ismael Rafols

22 April 2015

Use these ten principles to guide research evaluation, urge Diana Hicks, Paul Wouters and colleagues.

PDF Rights & Permissions

Subject terms: Careers · Research management · Publishing



The Hong Kong Principles for assessing researchers: Fostering research integrity

David Moher, Lex Bouter, Sabine Kleinert, Paul Glasziou, Mai Har Sham, Virginia Barbour, Anne-Marie Coriat, Nicole Foeger, Ulrich Dirnagl

Published: July 16, 2020 • <https://doi.org/10.1371/journal.pbio.3000737>





RoRI Working Paper No.3 The changing role of funders in responsible research assessment:

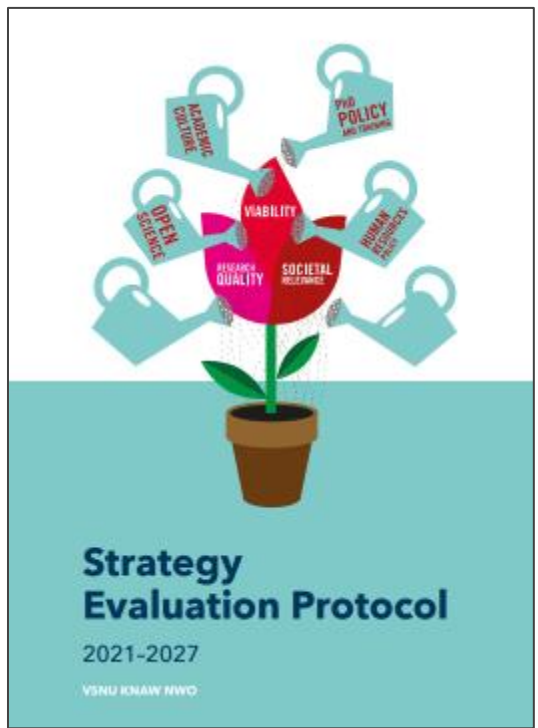
progress, obstacles and the way ahead

Stephen Curry, Sarah de Rijcke, Anna Hatch, Dorsamy (Gansen) Pillay, Inge van der Weijden and James Wilsdon
November 2020



Introducing 'SCOPE' A five-stage process for evaluating responsibly

- START with what you value**
 - Not with what others' value (external drivers)
 - Not with available data sources (the 'Streetlight Effect')
- CONTEXT considerations**
 - WHO are you evaluating? (Entity size)
 - WHY are you evaluating?
 - Do you need to evaluate at all?
- OPTIONS for evaluating**
 - Consider both quantitative and qualitative options
 - Be careful when using quantities to indicate qualities
 - Evaluate with the evaluated
- PROBE deeply**
 - WHO might your evaluation approach discriminate against?
 - HOW might your evaluation approach be gamed?
 - WHAT might the unintended consequences be?
 - Does the cost outweigh the benefit?
- EVALUATE your evaluation**
 - Did your evaluation achieve its aims?
 - Was it formative as well as summative?
 - Keep your approach under review



Room for everyone's talent towards a new balance in the recognition and rewards of academics



What kind of research intelligence do we need?

Responsible research assessment requires research intelligence to be

Transparent

Pluralistic

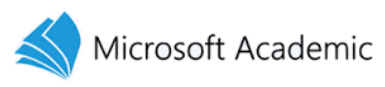
Democratic

This requires openness of scholarly metadata and research information



Open metadata of scholarly outputs

Openness of metadata of scholarly outputs



Open metadata initiatives



Initiative for Open Citations (I4OC)
<https://i4oc.org>

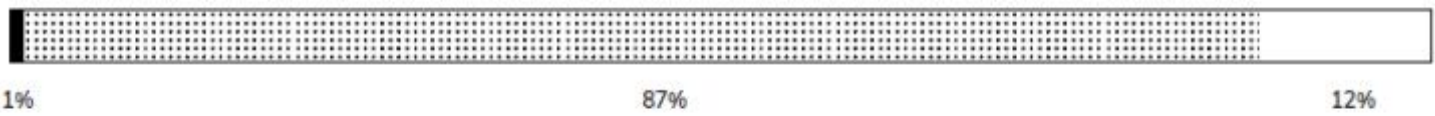


Initiative for Open Abstracts (I4OA)
<https://i4oa.org>

Openness of citations

I40C

How many citations are open today?



As of June 2021, the fraction of publications with open references has grown from 1% to 88% out of 55.4 million articles with references deposited with Crossref.



Advancing responsible research assessment

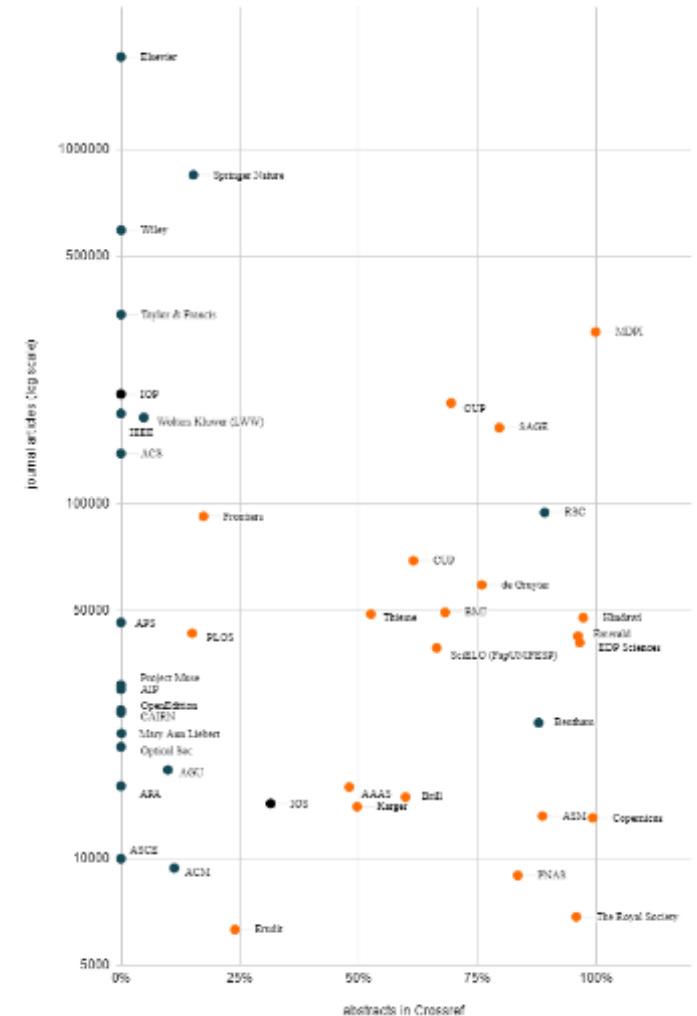
Elsevier signs Declaration on Research Assessment; implementation steps will include making reference lists of all articles openly available via Crossref

Openness of abstracts

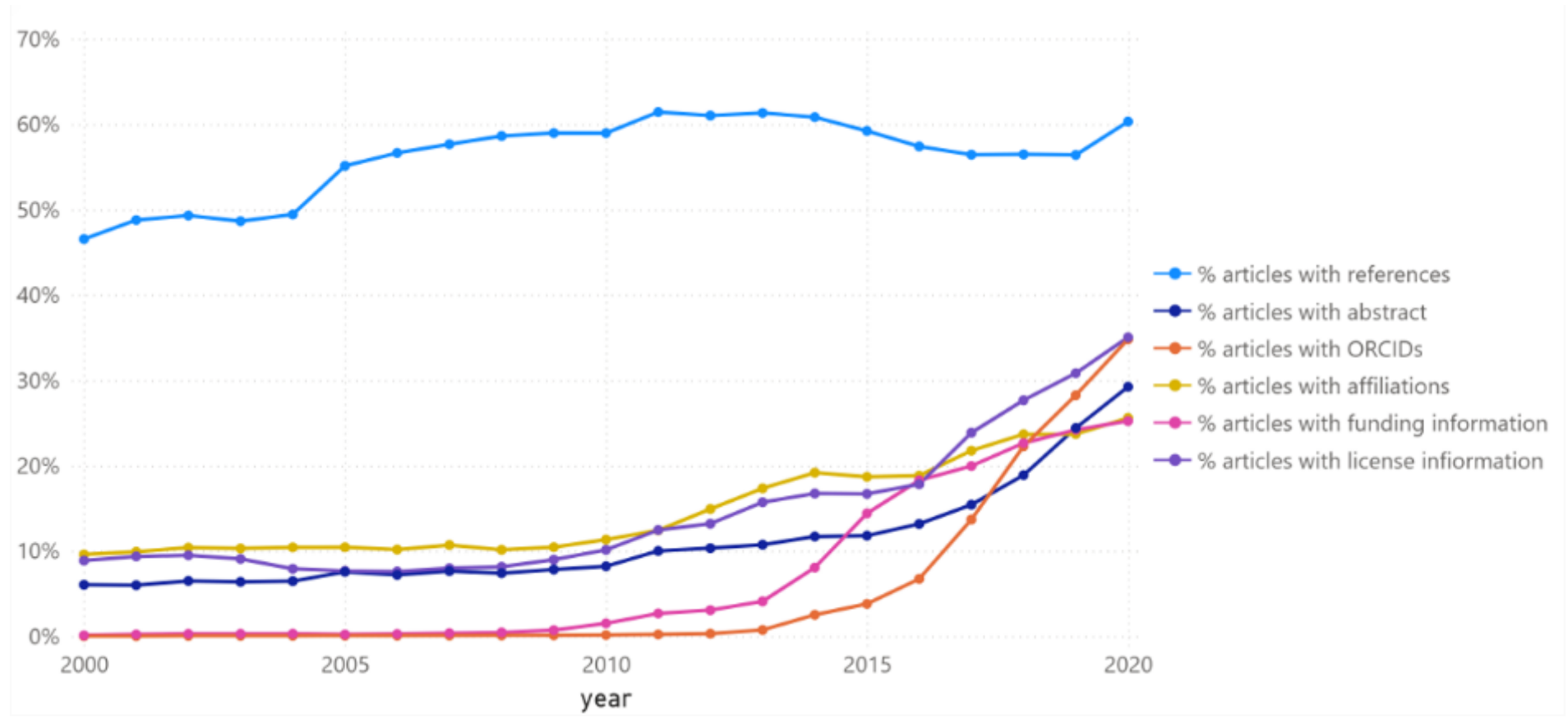
- Many medium-sized publishers have opened their abstracts in response to I40A
- Unfortunately no positive response yet from the four largest publishers



selected publishers - abstracts in Crossref
journal articles (2019-2021) per 2021-03-01



Open metadata in Crossref



From Microsoft Academic to OpenAlex



Next Steps for Microsoft Academic – Expanding into New Horizons

May 4, 2021



Editor's note, June 4, 2021 – the post has been updated with a more extensive FAQ to provide more details on the changes announced May 4.

For over seven years, Microsoft Research has been proud to have one of its AI research projects contribute to the open exchange of knowledge within the research community. We are now evolving our focus to explore how we can advance these AI technologies in Microsoft 365 to empower every person and organization to derive valuable insights from their content.

We remain confident in open and community-driven alternatives to MAS and are pleased to see the recent momentum across the academic ecosystem. Many of our open-source machine learning algorithms and annotated data repositories are available to the community today, and we will continue to provide guidance to key partners throughout this transition.

Microsoft Academic has been on a mission to explore new ways to empower researchers and research organizations to achieve more. The research project is characterized by two sets of technologies: one that reads all the Bing-indexed web pages and organizes the most up-to-date academic knowledge into a knowledge base called Microsoft Academic Graph (MAG), and the other that performs semantic reasoning and inference to serve that knowledge through the Microsoft Academic search website and API. We are proud that these data and web services have been found useful in numerous research projects around the world, and excited to see more community-driven, public efforts emerge.



OurResearch blog

News from the OurResearch team

MAG replacement update: meet OpenAlex!

- ☰ Last month, we [announced](#) that we're launching a replacement for Microsoft Academic Graph (MAG) this December—just before MAG itself will be [discontinued](#). We've heard from a *lot* of current MAG users since then. All of them have offered their support and encouragement (which we really appreciate), and all have also all been curious to learn more. So: here's more! It's a snapshot of what we know right now. As the project progresses, we'll have more details to share, keeping everyone as up-to-date as we can.



Ludo Waltman
Professor of Quantitative
Science Studies and
Deputy Director

**Open
Access**



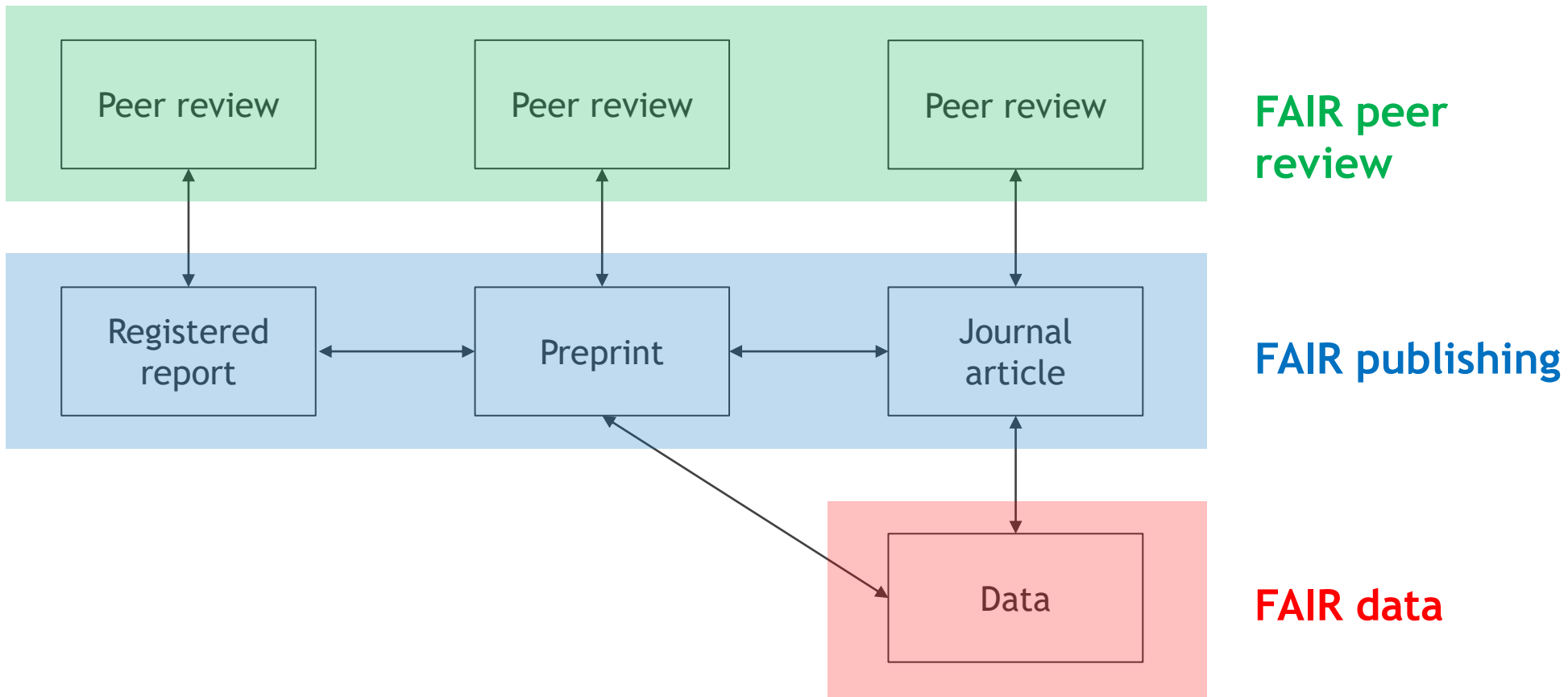
**Findable
Accessible
Interoperable
Reusable**

Publications should be FAIR

October 26, 2020 · 3 min read

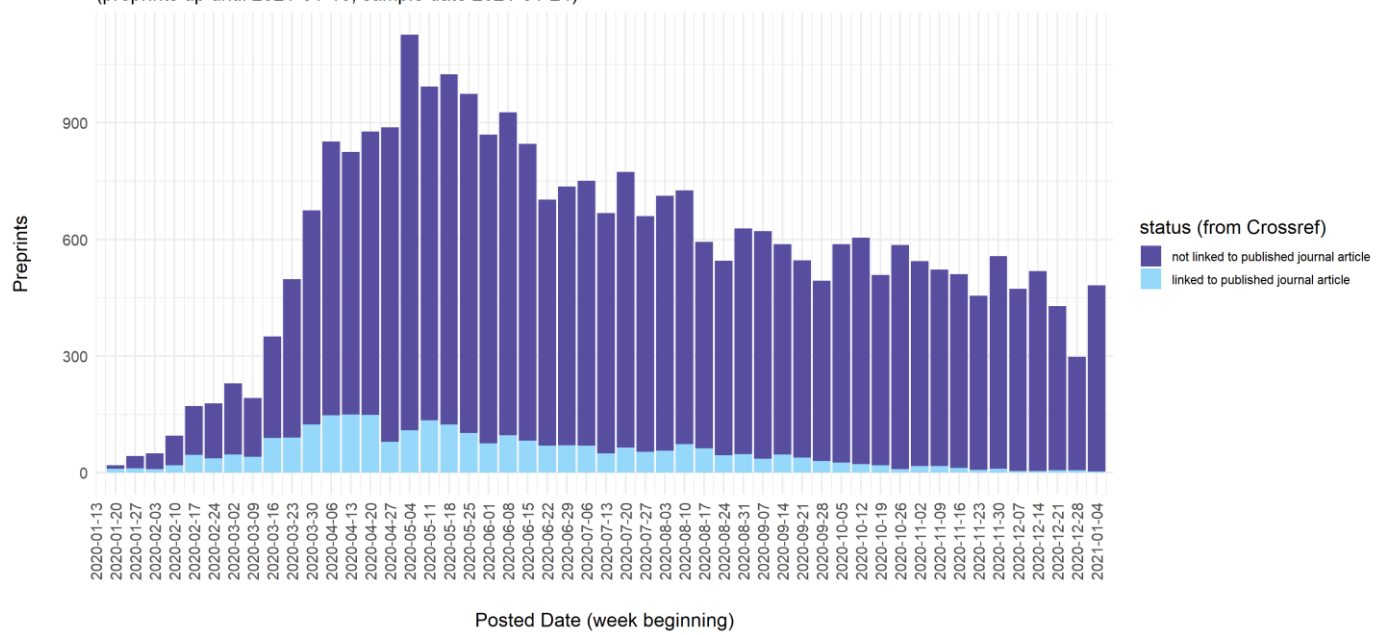
Scholarly data sets are increasingly expected to be FAIR (findable, accessible, interoperable, and reusable). To fully realize the benefits of open access to the scholarly literature, Ludo Waltman argues that publications should be FAIR as well.

FAIR data, FAIR publishing, FAIR peer review



Making scholarly communication more FAIR

COVID-19 preprints per week in Crossref
(preprints up until 2021-01-10, sample date 2021-01-24)



Source: https://github.com/bmkramer/covid19_preprints_published

The DocMaps Framework

 last released 5 months ago

Summary

DocMaps is a framework for capturing valuable context about the processes used to create documents, in a machine-readable way that can be expressed and interpreted in multiple formats depending on the use-case of the reader of the DocMap. The framework is designed to capture any amount of contextual data about a document — from a minimum assertion that a process took place, to a detailed history of every edit to a document.



Open Knowledge Base (OKB) for the Netherlands

Guiding principles for new research intelligence and scholarly communication services

Guiding principles proposed by the Dutch Taskforce on Responsible Management of Research Information and Data:

- Ownership of (meta)data
- Enduring access
- Trusted and transparent governance
- Interoperability as part of community owned governance
- Open collaboration with the market
- Community owned governance

Open Working

Open Working from 4TU.ResearchData & TU Delft Library (Since 2017)

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ABOUT THIS BLOG

DATA STEWARDSHIP

DATA CHAMPIONS

CONTACT

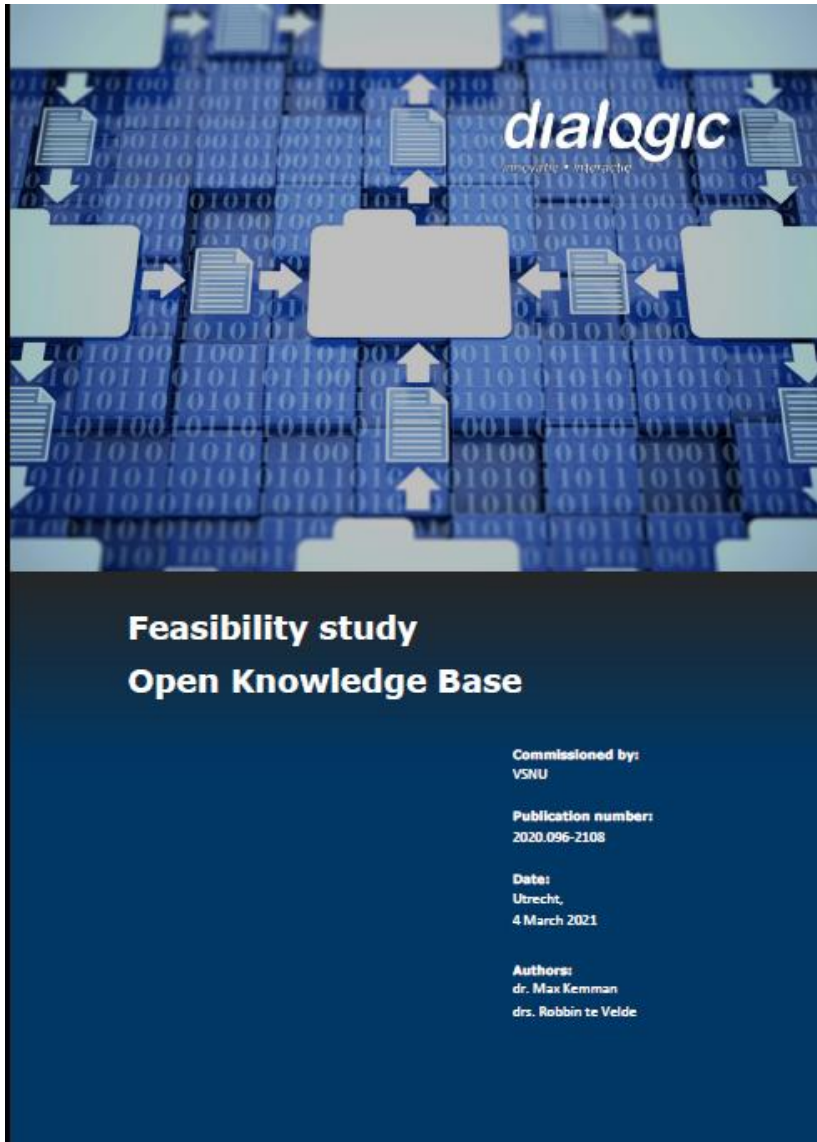
MAY 29, 2020

What is an Open Knowledge Base anyway?

The recent contract signed between the Dutch research institutions and the publishers Elsevier mentions the possibility of an Open Knowledge Base (OKB), but the details are vague. This blog post looks some more about definitions of an OKB within the context of scholarly communications and elements that need to be taken into account in building one.

Readers may also be interested in [contributing to the consultation](#) that is being run as part of the [Dutch Taskforce on Responsible Management of Research Information and Data](#). The VSNU will also be commissioning a feasibility study on the topic.

Authors: Alastair Dunning, Maurice Vanderfeesten, Sarah de Rijcke, Magchiel Bijsterbosch, Darco Jansen (all members of above taskforce)



dialogic
associate + interactie

**Feasibility study
Open Knowledge Base**

Commissioned by:
VSNU

Publication number:
2020.096-2108

Date:
Utrecht,
4 March 2021

Authors:
dr. Max Kemman
drs. Robbin te Velde

An Open Knowledge Base for the Netherlands

Report of a Community Workshop

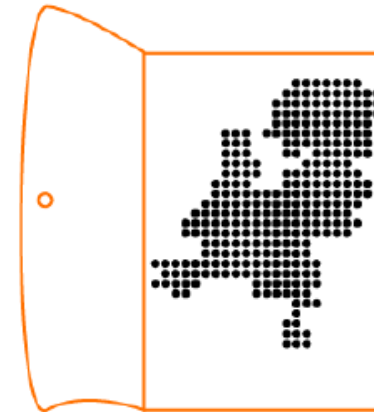
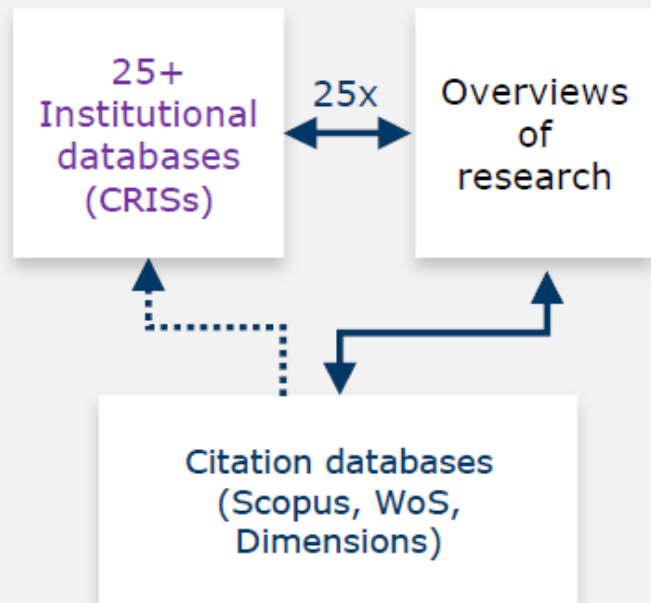
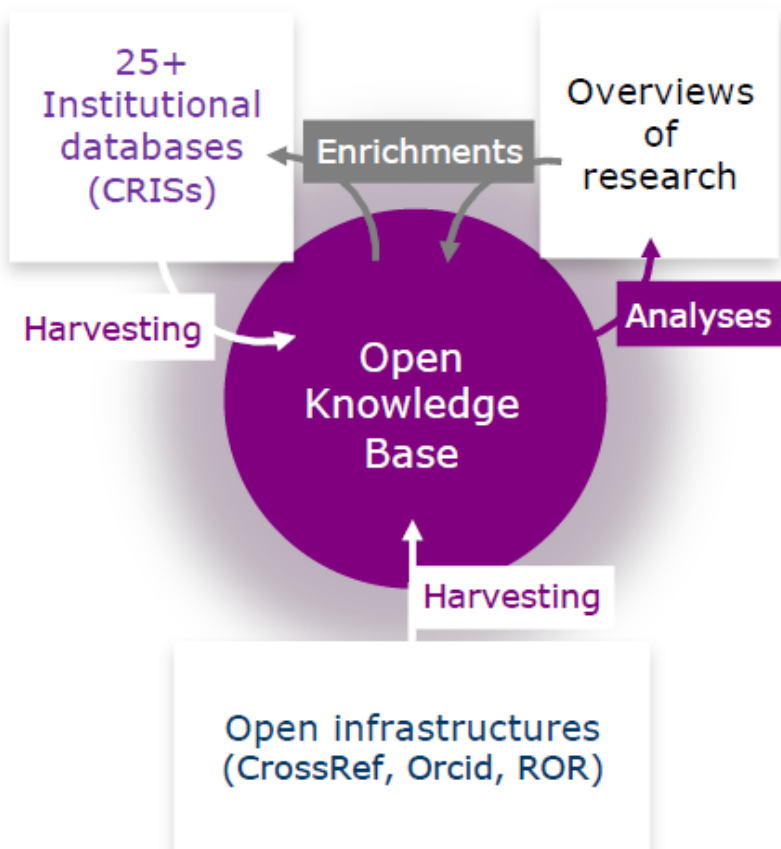


Image adapted from original by Fien Robbe at the Noun Project under a CC BY License

Current situation



Proposal

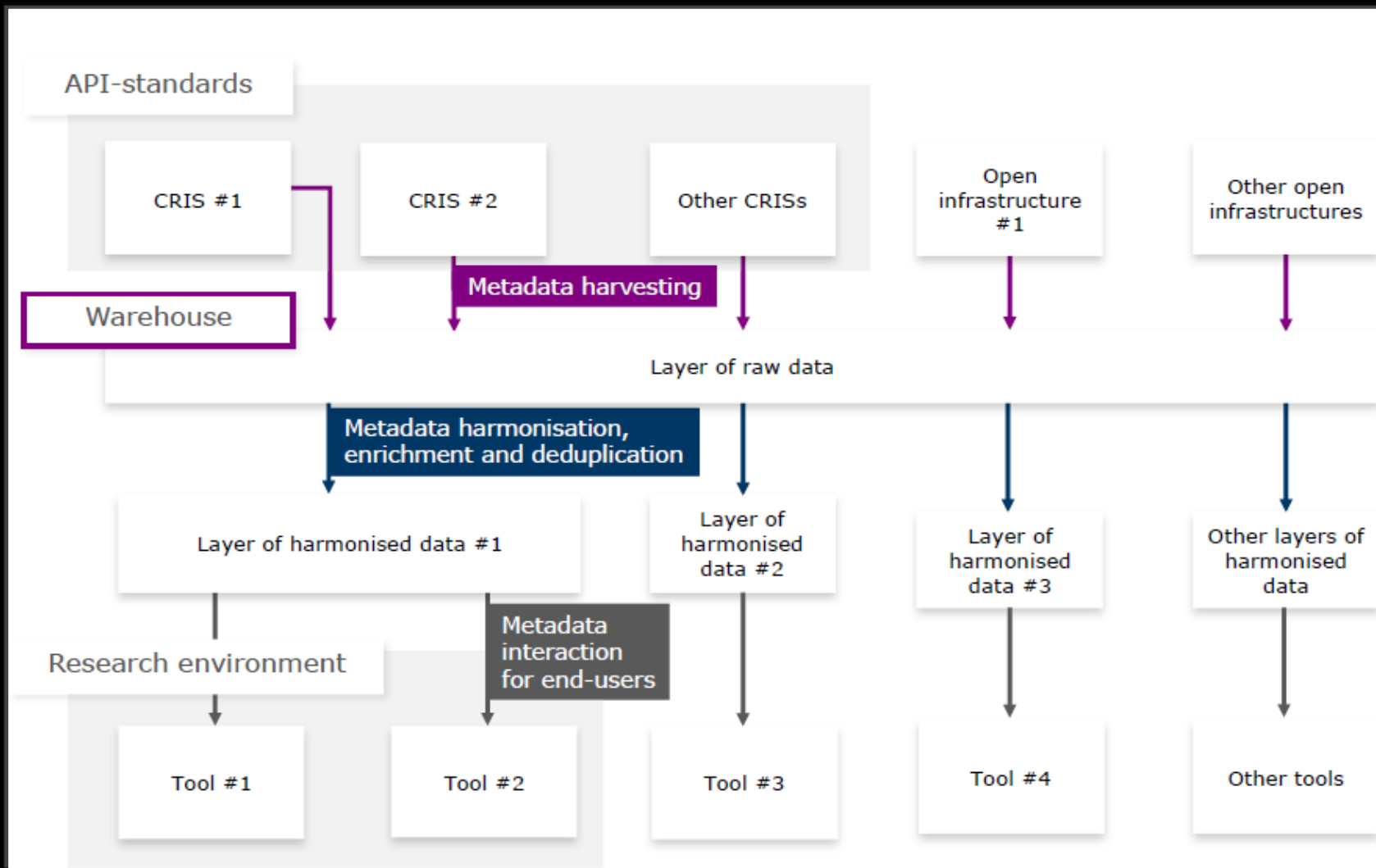


Aims and use cases of an OKB

- Aims of an OKB:
 - **Protect academic independence** by opening up the metadata and metrics underlying assessments of scholarship
 - **Improve and enhance the quality and coverage of metadata** available in the Dutch landscape of infrastructures on scholarly communications
- Prominent use cases:
 - Supporting the future development of the SEP 2021-2027 by providing frameworks for **more diverse indicators**, tracking a wider range of outputs and activities
 - Demonstrating a capacity to provide information on **open access performance** at the institutional and discipline level
- OKB proposal is both a **technological proposal** and a **governance proposal**

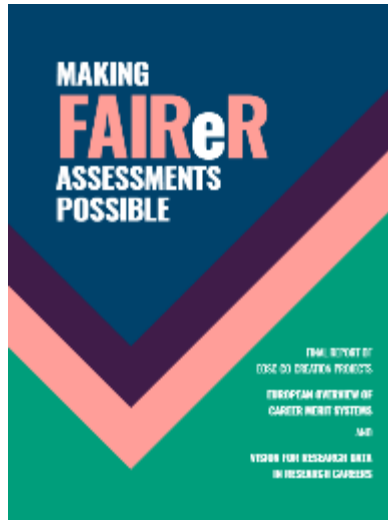
Three models for an OKB

- **API-standards model**
 - Standards and guidelines of metadata that each organization should provide through an openly available API
- **Warehouse model**
 - Centralized data warehouse where metadata is collected from API-endpoints and other open infrastructures, and is deduplicated and harmonized
- **Research environment model**
 - Expansion of the warehouse model with the addition of research intelligence services and tools that demonstrate the utility of the data stored in the OKB



What's next?

- OKB is **technically feasible** and appears to get **strong support** from broad range of stakeholders
- Key recommendations:
 - Pursue (at minimum) the **warehouse model**
 - Need for **strong leadership**
 - Identification of necessary **expertise and resources** in public sphere
 - Positioning in **international landscape** of infrastructures
- Next steps will be determined by the Dutch research organizations



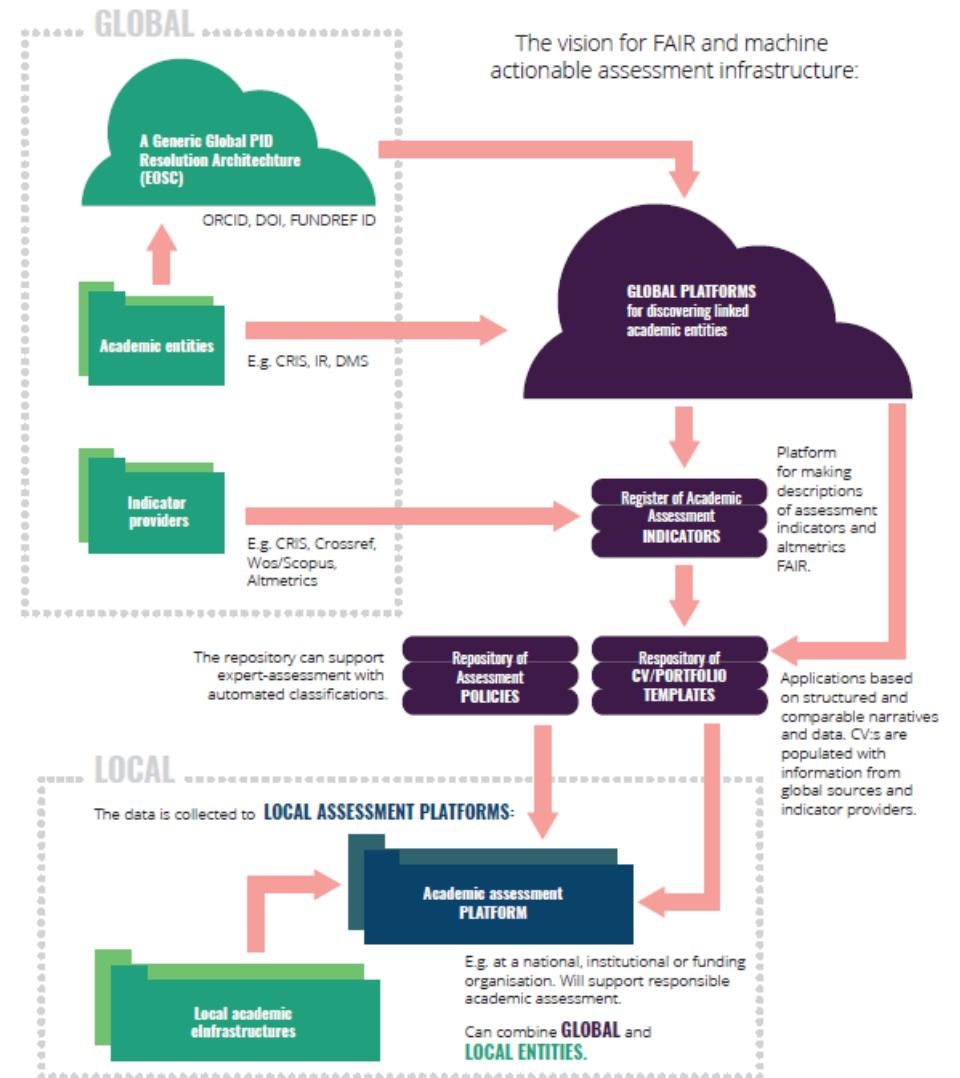
STEPS FOR REALISING THE VISION FOR FAIRer ASSESSMENTS



FAIRer ACADEMIC ASSESSMENTS

<p>Recognise and value diversity and disciplinary differences of academic work</p> <ul style="list-style-type: none"> ◆ Outputs ◆ Missions ◆ Impacts 	<p>Diversity needs to be represented in information supporting assessment</p> <ul style="list-style-type: none"> ◆ Data models and structures ◆ FAIR and transparent data ◆ Integrated infrastructure 	<p>Diversity of outputs, activities and missions need to be included among assessment criteria</p> <ul style="list-style-type: none"> ◆ Recruitment ◆ Promotion ◆ Funding
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◆ ALREADY EXISTING PLATFORMS ◆ RESEARCH INFRASTRUCTURE ECOSYSTEM ◆ LOCAL ASSESSMENT PLATFORMS





Conclusions

Conclusions

- Responsible research assessment requires **openness of metadata and research information**
- Scholarly outputs increasingly have **open metadata**, but some publishers are reluctant to support openness of metadata
 - Consider giving support to open metadata initiatives
 - Let's make scholarly publishing more FAIR
- The Open Knowledge Base for the Netherlands is an initiative to build a **national infrastructure for open research information**, aligned with new approaches to research assessment
 - Happy to share experiences and interested to hear about similar initiatives in other countries!



Thank you
for your attention!



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