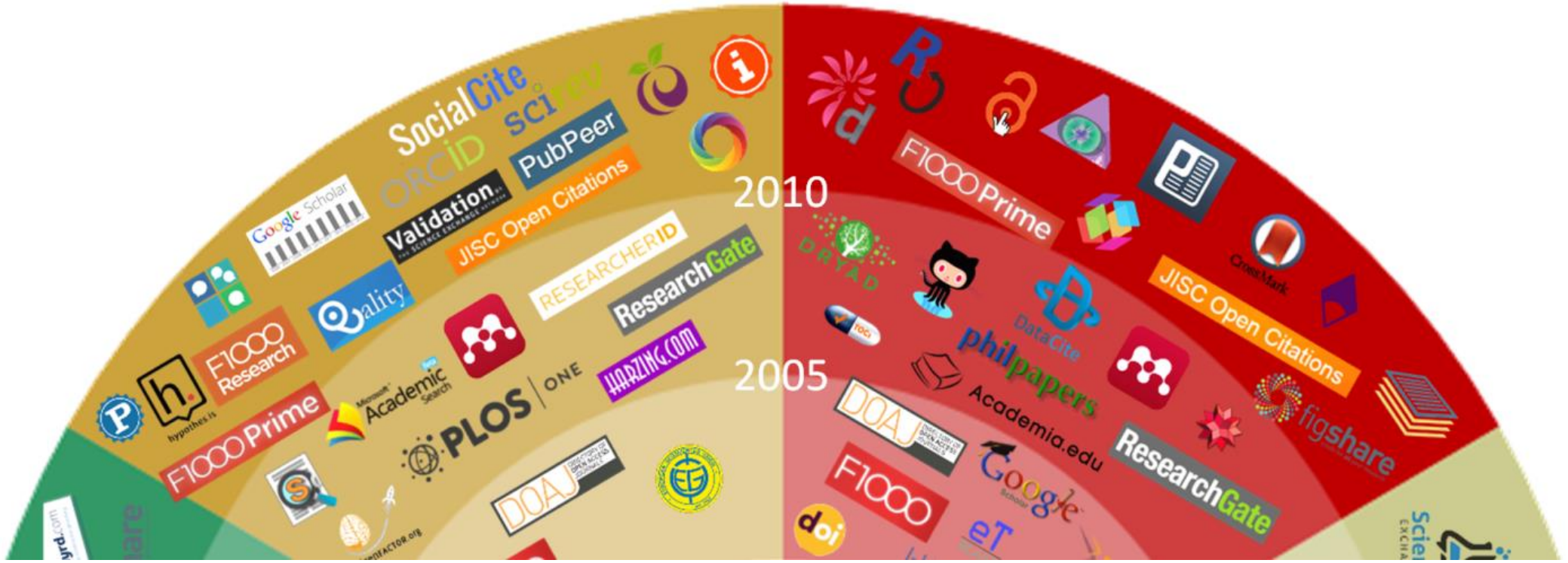


Innovative research practices and tools

Research integrity as catalyst and outcome

https://doi.org/10.6084/m9.figshare.5047705

Bianca Kramer & Jeroen Bosman, Utrecht University Library

World Conference on Research Integrity (WCRI), Amsterdam, May 29 2017

@MsPhelps
@jeroenbosman

Good and open research practices

- involve public / patients in drafting research proposals
- openly share project proposals
- share hypothesis before starting research
- search for OA literature
- extensively search for existing data before generating your own
- use easily attainable software to allow anyone to reproduce your results

Good and open research practices

- store data in the most open format possible
- executable, forkable publications, including text, code & data
- cite OA versions of literature & provide data and code citations
- acknowlegde contributor roles in a publication
- translate research objects in world languages
- publish preprints, encourage feedback / open peer review

Good and open research practices

publish pre-publication history (version + reviews)

make re-use and licensing guidelines explicit

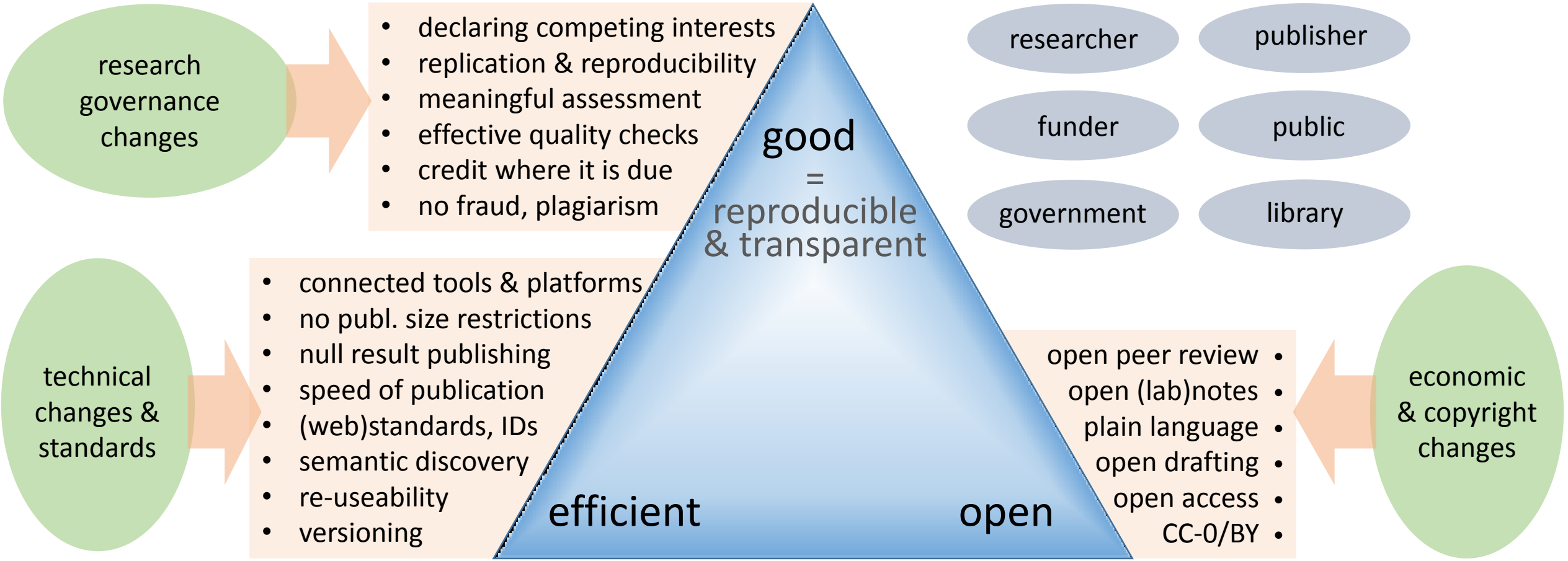
communicate analyzed data with: experts, non-expert scientists, lay-public

refuse to be part of all male of all white panels

assessment of scientists based on a variety of contributions, not just H-index

use metrics of commercial /social applications to assess research

Three goals for science & scholarship (G-E-O)

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Version, modify, and discuss existing protocols

You can "clone" protocols in order to be able to modify existing protocols from other scientists. You can also ask questions and comment on step-level or on the entire protocols.

Getting Started

The Resource Identification Portal was created in support of the Resource Identification Initiative, which aims to promote research resource identification, discovery, and reuse. The portal offers a central location for obtaining and exploring **Research Resource Identifiers (RRIDs)** - persistent and unique identifiers for referencing a research resource. A critical goal of the RII is the widespread adoption of RRIDs to cite resources in the biomedical literature and other places that reference their *generation* or *use*. RRIDs use established community identifiers where they exist, and are cross-referenced in our system where more than one identifier exists for a single resource. Some examples are shown below, which are linked to metadata about each resource:

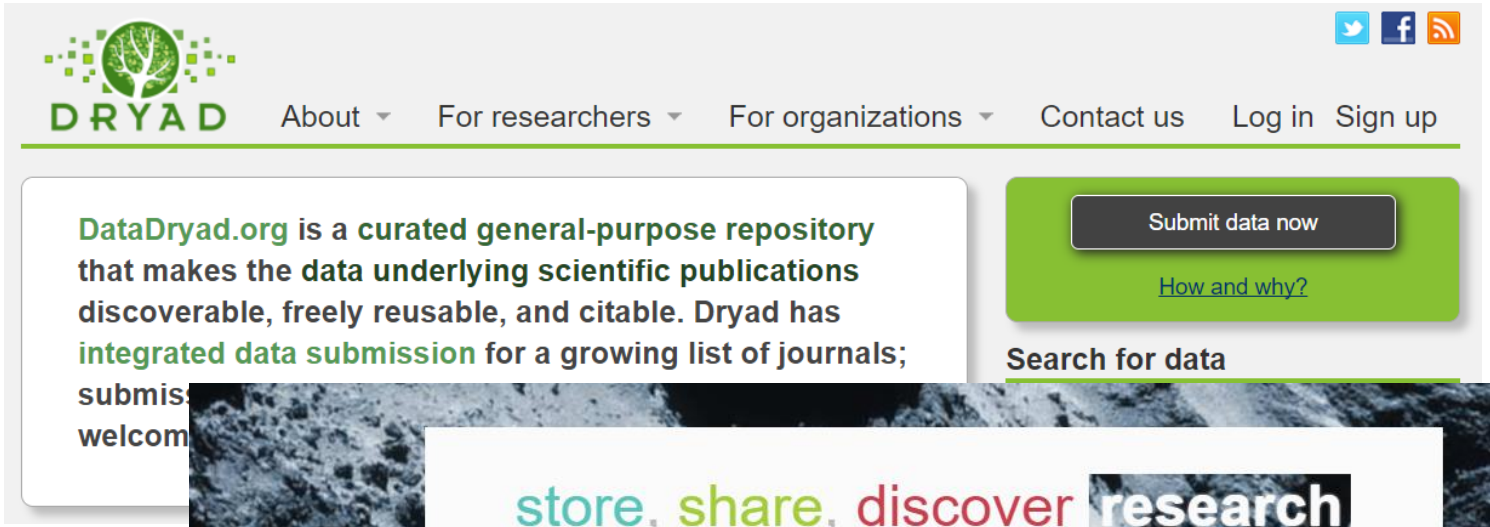
Antibody: RRID:AB_90755

Organism: RRID:RGD_4139885

Cell Line: RRID:CVCL_0033

Tool: RRID:SCR_007358


OPEN DATA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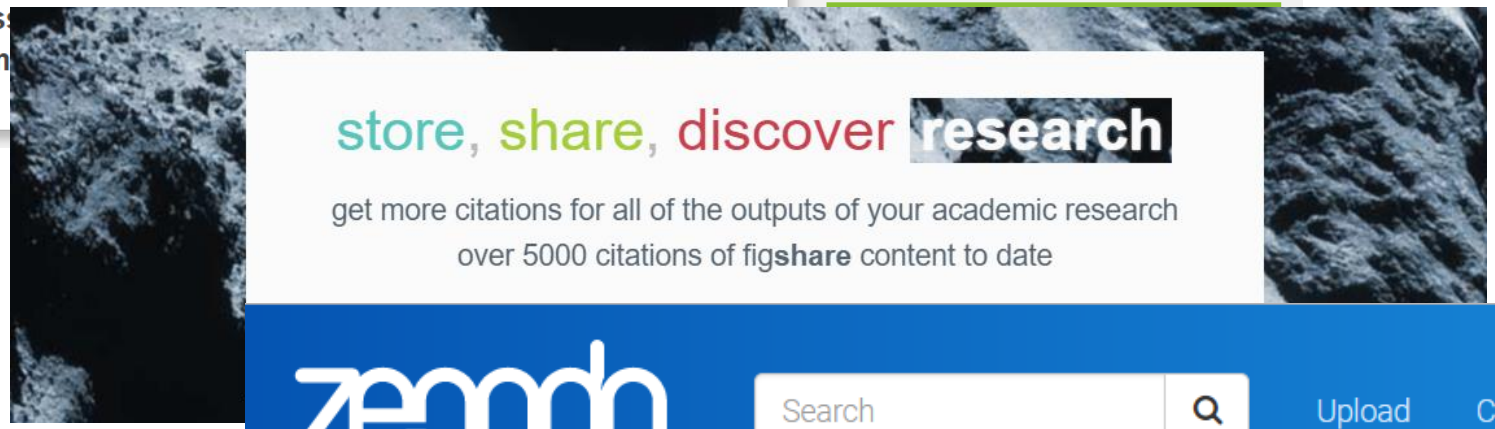
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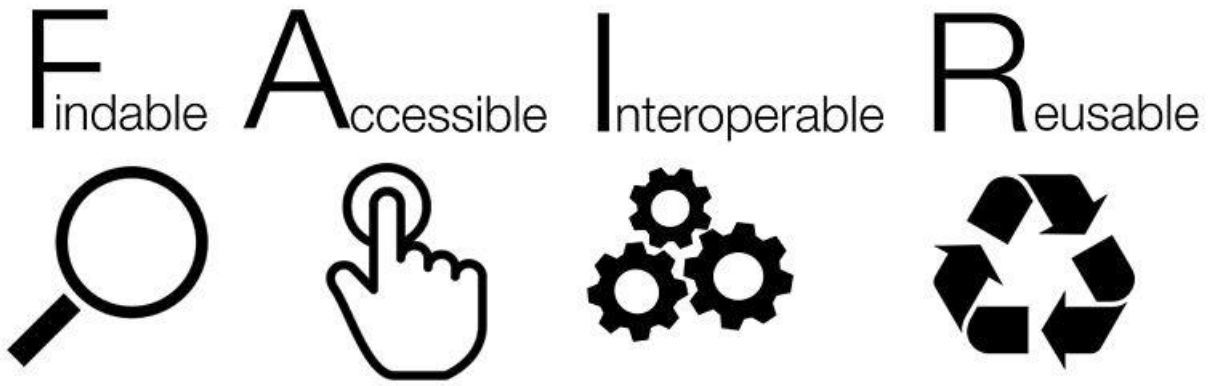
Findable
Accessible
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Reusable

Contributor Roles

casrai

A high-level classification of the diverse roles performed in the work leading to a published research output in the sciences. Its purpose to provide transparency in contributions to scholarly published work, to enable improved systems of attribution, credit, and accountability.

Jupyter Notebooks

Project Jupyter is an open source project was born out of the IPython Project in 2014 as it evolved to support interactive data science and scientific computing across all programming languages. Jupyter will always be 100% open source software, free for all to use and released under the liberal terms of the modified BSD license

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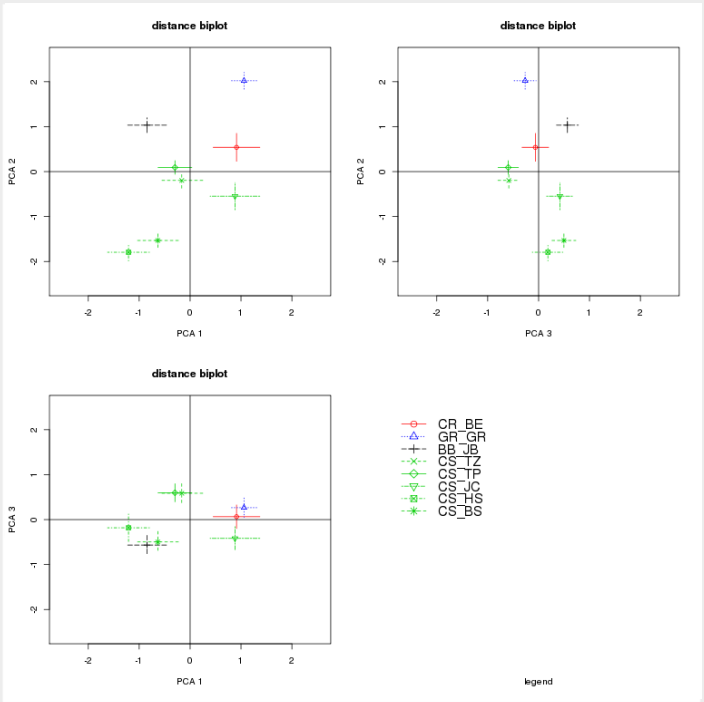

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New Results

Cooperation And Liaison Between Universities And Editors (CLUE): Recommendations On Best Practice

Elizabeth Wager, Sabine Kleinert, Michele Garfinkel, Volker Bähr, Ksenija Baždarić, Michael Farthing, Chris Graf, Zoë Hammatt, Lyn Horn, Susan King, Debra Parrish, Bernd Pulverer, Paul Taylor, Gerrit van Meer

doi: https://doi.org/10.1101/139170

Abstract | Info/History | Metrics | Preview PDF

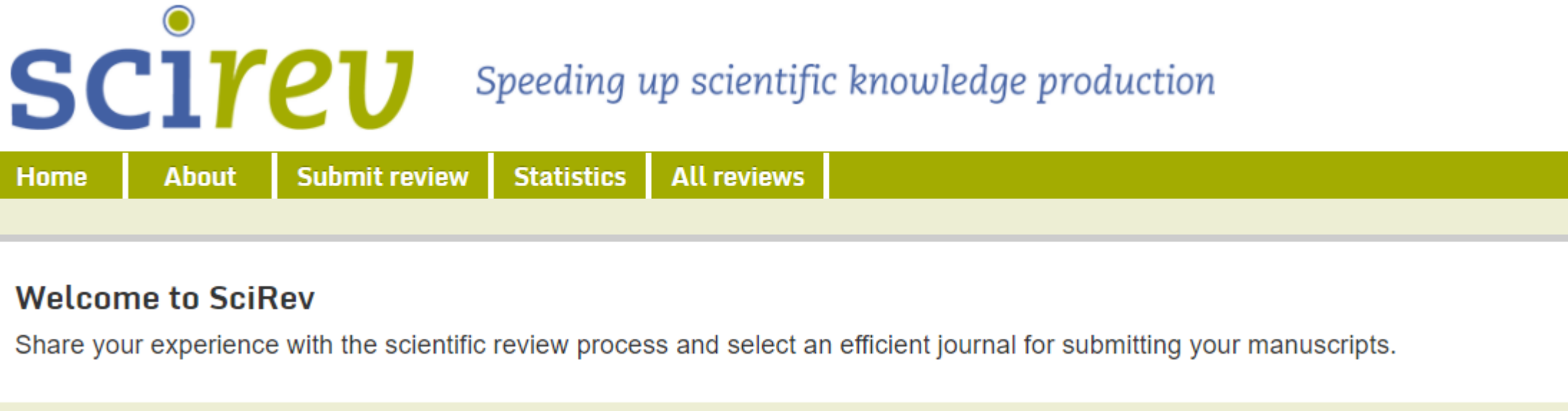
photo: Dari Drozhzhina

Peer review models – dimensions of change


PRE
Peer
Review
Evaluation


THE
PRO
INITIATIVE
for open science

statcheck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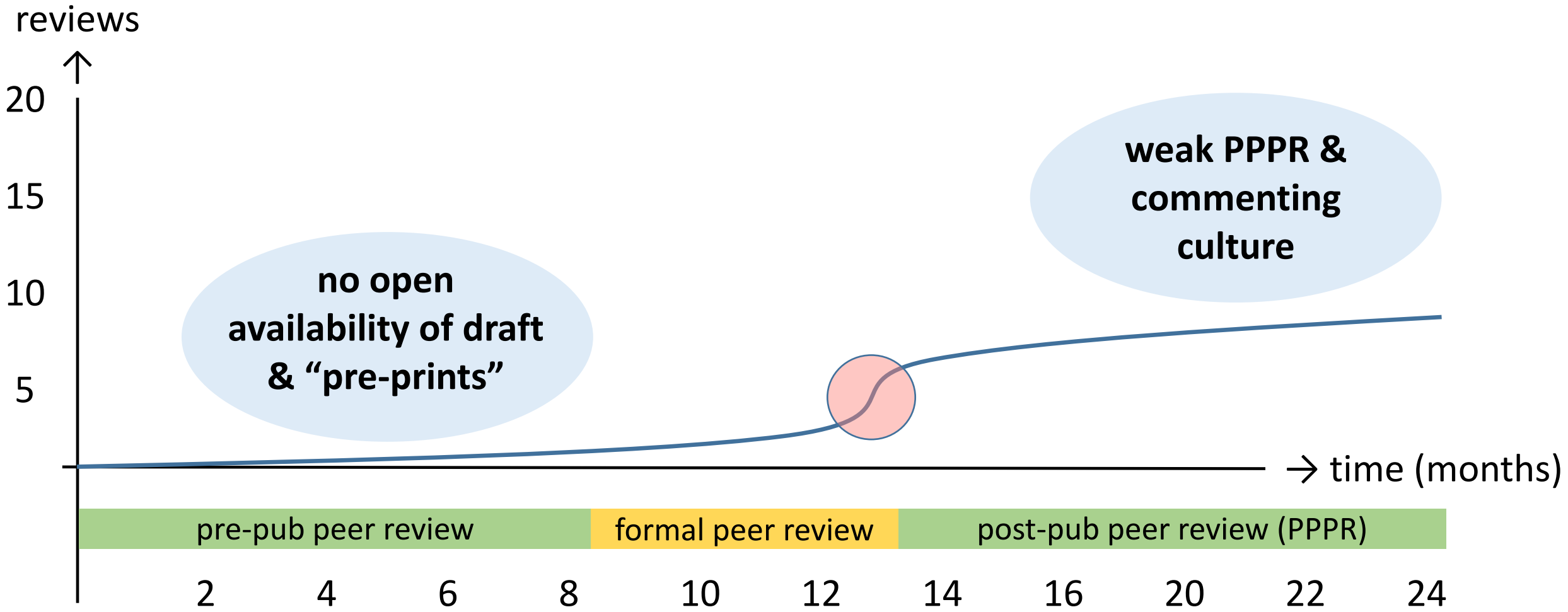
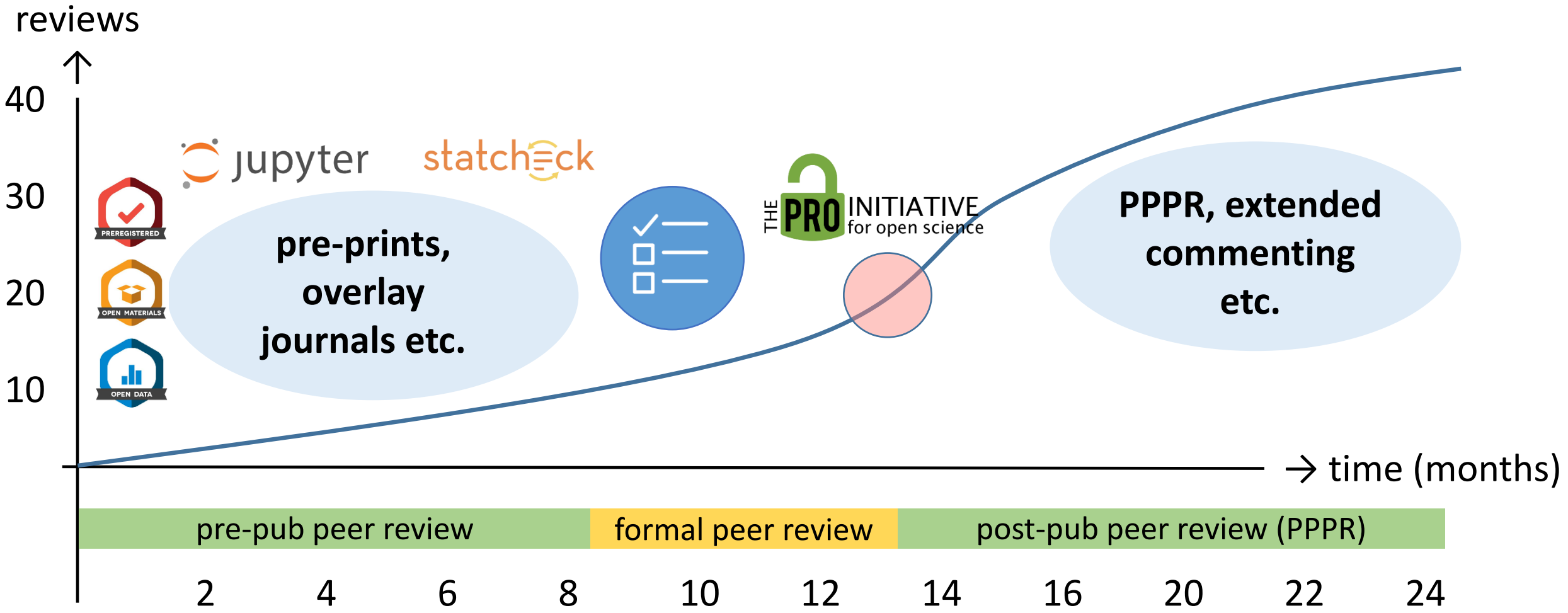
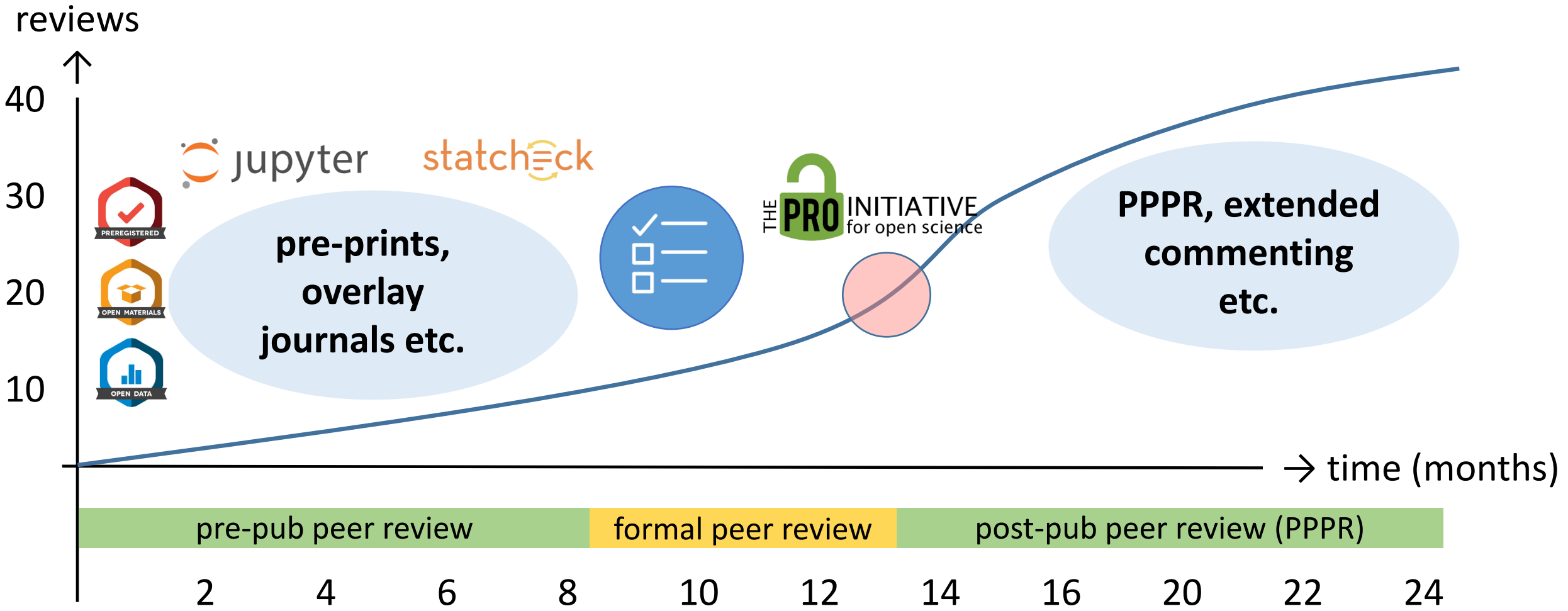
A life cycle model of peer review - limited

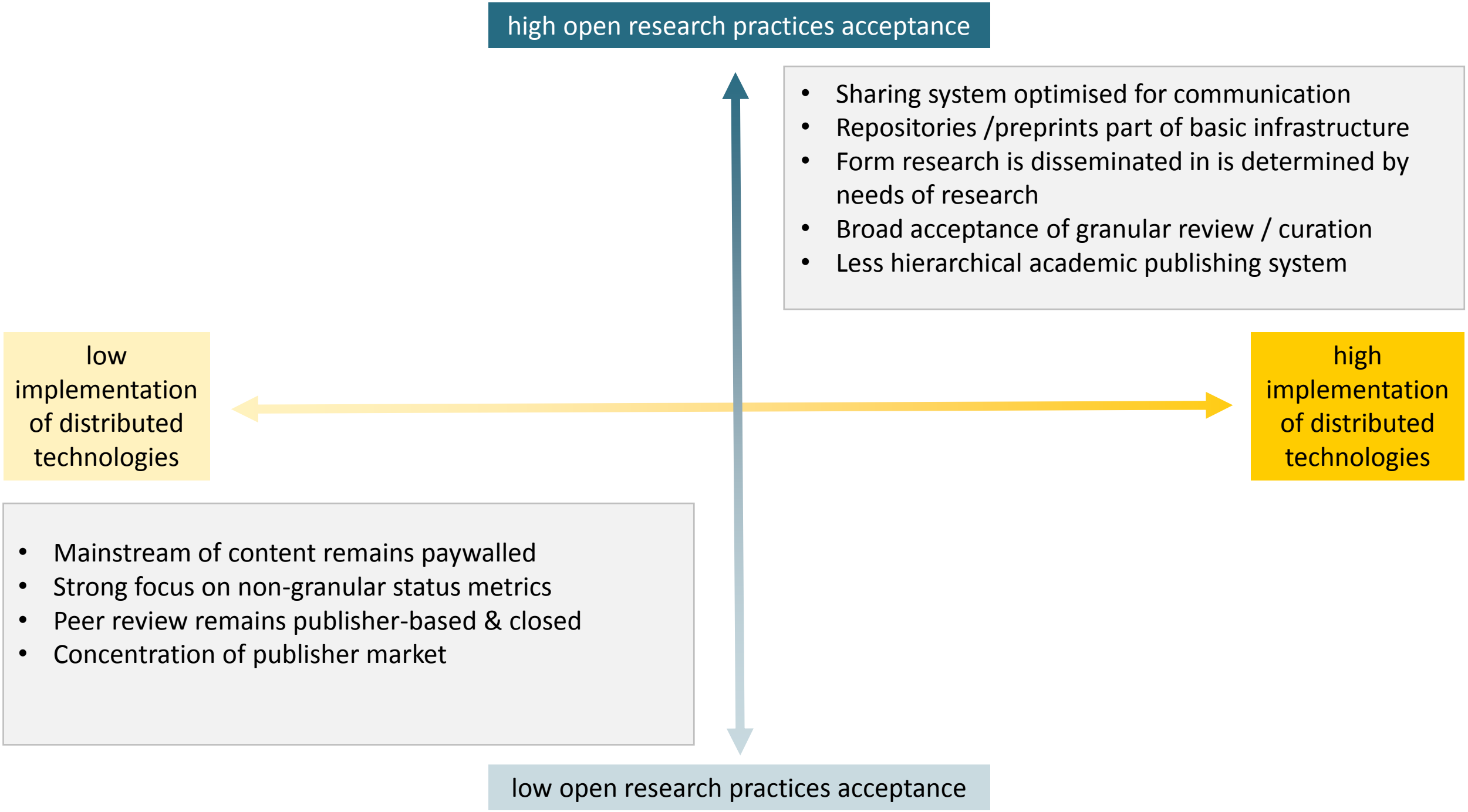


A life cycle model of peer review - enhanced



A life cycle model of peer review - quality




high open research practices acceptance
Sharing system optimised for communication
Repositories /preprints part of basic infrastructure
Form research is disseminated in is determined by needs of research
Broad acceptance of granular review / curation
Less hierarchical academic publishing system
low implementation of distributed technologies
high implementation of distributed technologies
Mainstream of content remains paywalled
Strong focus on non-granular status metrics
Peer review remains publisher-based & closed
Concentration of publisher market
low open research practices acceptance

Enabling and constraining contexts of open and reproducible workflows

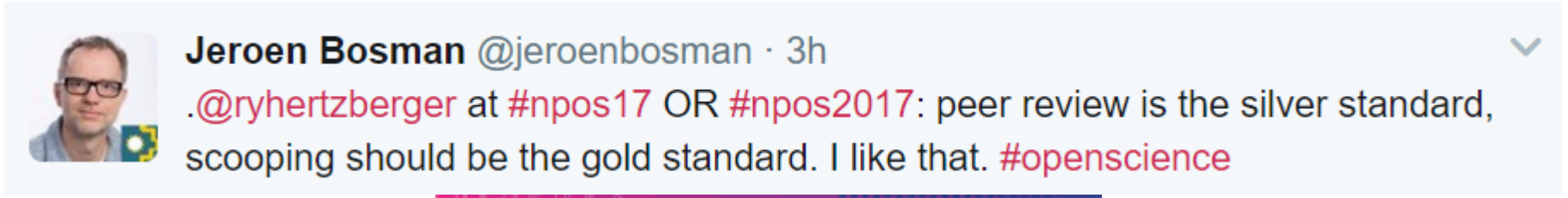
- assessment criteria
- publication culture
- learning curves
- agreements with collaborators
- uncertainty over effects & legitimacy

- political support at (inter)national level
- pressure from funders
- user-friendly and powerful tools
- interoperability
- role models
- attention for positive effects

Developments towards good, open and efficient research

Slow, difficult
Debunking impact factor thinking
Debunking data scooping myth
Changing version of record thinking

Fast, smooth, easy
Preprint adoption by publishers & researchers
Data management policies at funders
ORCID adoption



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