The CASE Webinar

Future Journal Publishing Model

CASE
Council of
Asian Science Editors

Evolution of Scholarly Communication Models

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- Scholarly Communication History
- Scholarly Communication Models
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Introduction



Introduction

- Scholars are central to scholarly communication.
  - Scholars write and publish articles in scholarly journals.
  - Although scholarly journals are published and distributed by societies or publishers, their production depends heavily on scholars' voluntary participation.
  - In this sense, scholarly journals function as scholar-centered forums for communication.
    - Scholars contribute to journal publication in several roles: as authors who submit manuscripts, as peer reviewers who evaluate them, and as editors who manage the publication process.

Introduction

- Scholarly journals were created and developed in t he *print era*, but their nature has changed substanti ally in the *digital age*.
  - This shift reflects the broader digital transformation of s cholarly communication.
  - Both technological advances and financial pressures hav e shaped this transformation.
    - Rapidly rising subscription costs created strong pressure for change, w hile digital networks, online dissemination, and information technolog y accelerated new forms of scholarly communication.
    - The open access movement originated partly from financial concerns, but the desire for broader change in scholarly communication, togeth er with developments in information technology, expanded this agend a into open science.

Introduction

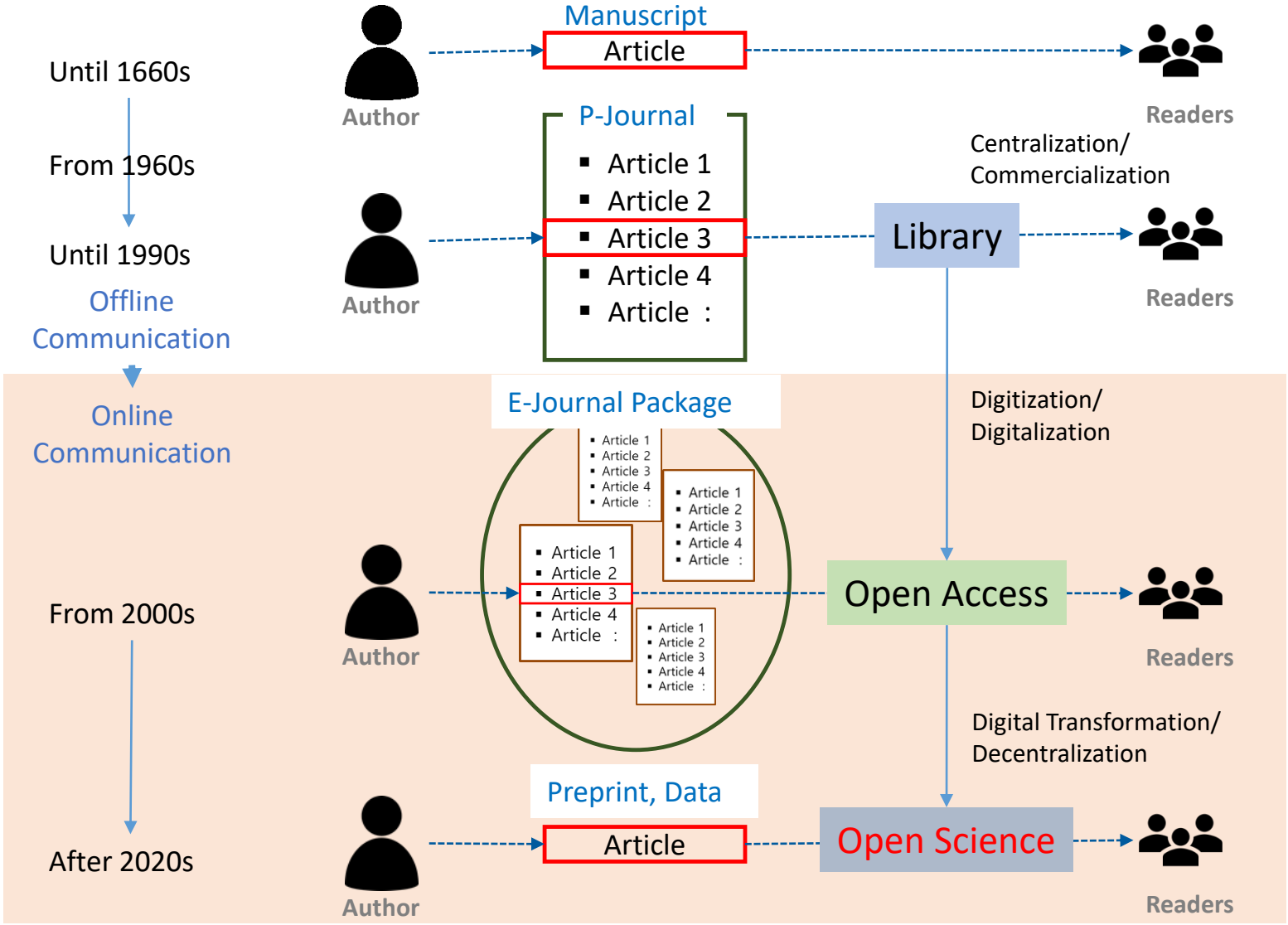
- Given these developments, reviewing the evolution of scholarly publishing models and anticipating their future direction can help identify a more sustainable path forward.
- I will examine the history of scholarly publishing and proposes an ideal model for its future development.

- *This presentation is a summary and updated version of the article below:*
  - *Seo TS. Evolution of scholarly communication models from publisher-driven to scholar/funder-driven: a narrative review. Sci Ed. 2026;13(2):78-84.*

Scholarly Communication History



Scholarly Communication History



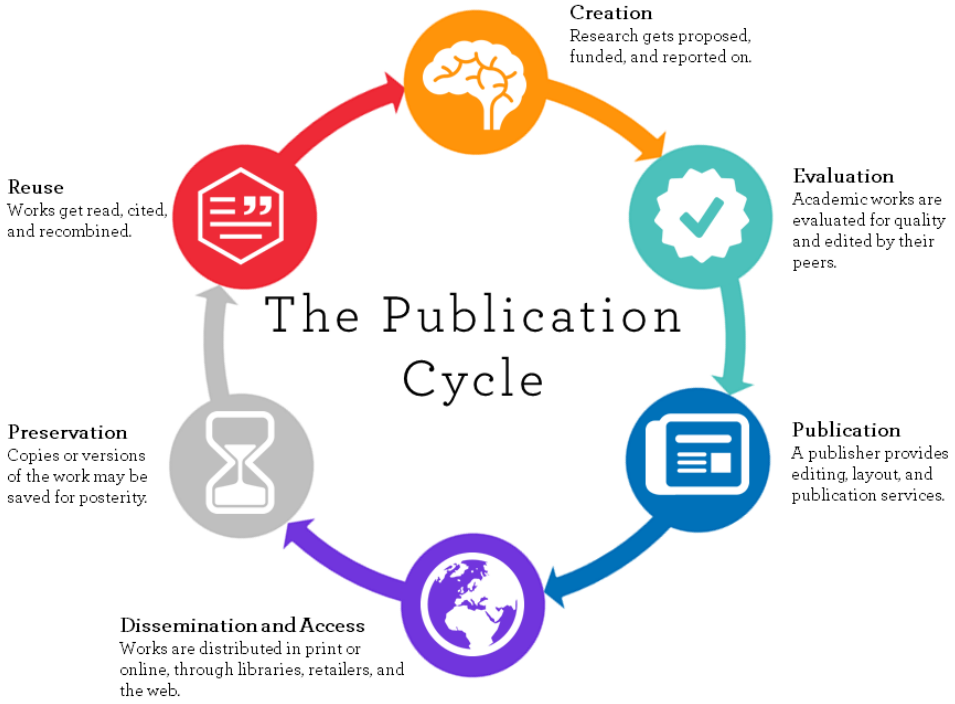
Scholarly Communication History

Scholarly Communication Model History

Time period	Key characteristic	Medium	Issue	Model
Until the 17th century	Handwriting and verbal communication	Manuscripts on paper	Restricted accessibility	Scholar-driven
17th to 20th centuries	Journal subscription	Print journals	Expensive subscriptions; JIF-dependent assessment	Publisher-driven; publisher/funder-driven
2000s	Open access	Digital journals	High APCs; slow publication	Publisher/funder-driven
2020s	Open science	Digital articles and data	Lack of review	New model

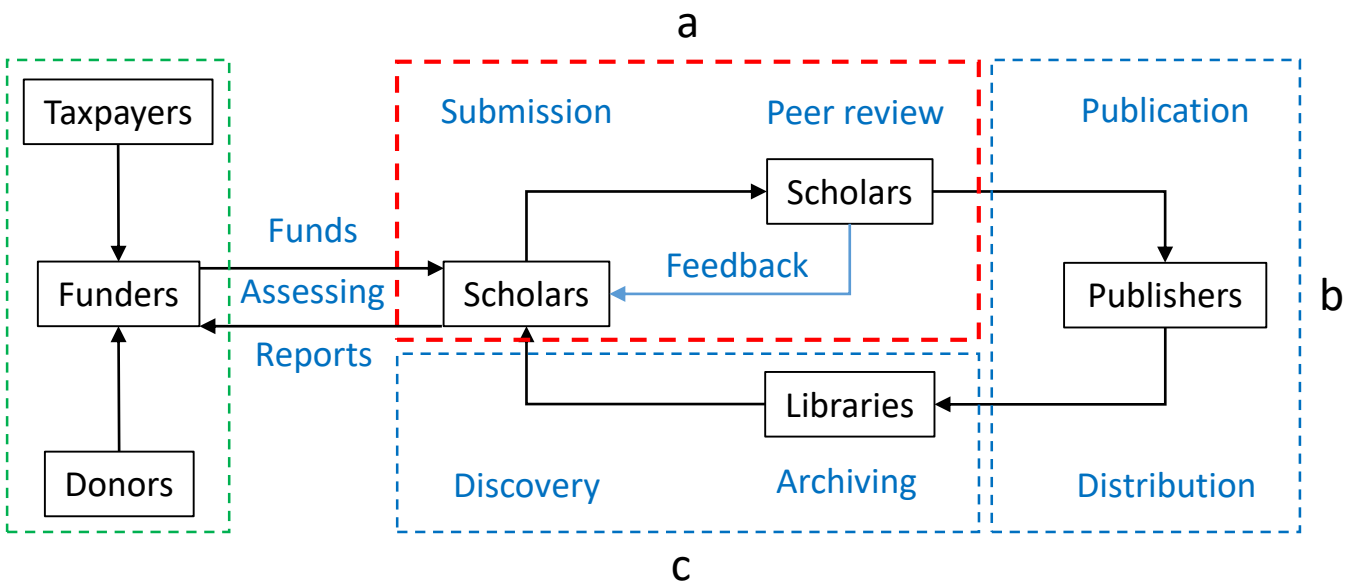
JIF, journal impact factor; APC, article processing charge.

Scholarly Communication Models



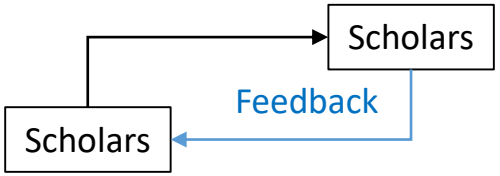
Scholarly Communication Models

Current Scholarly Communication Model

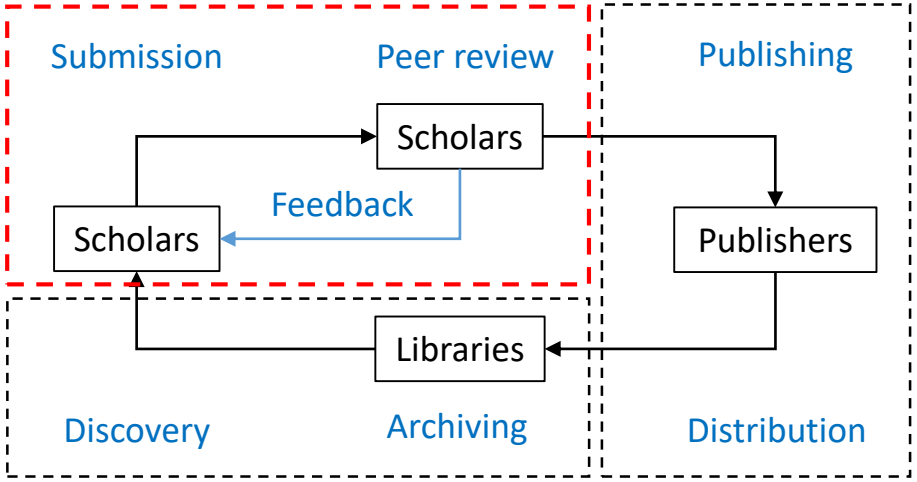


Scholarly Communication Models

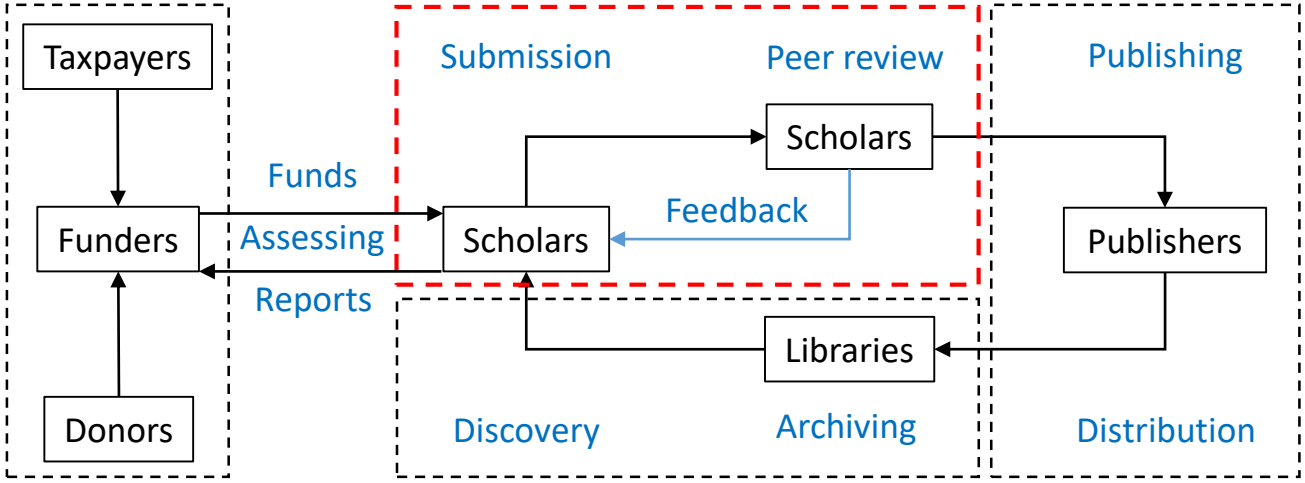
a. Scholar-driven



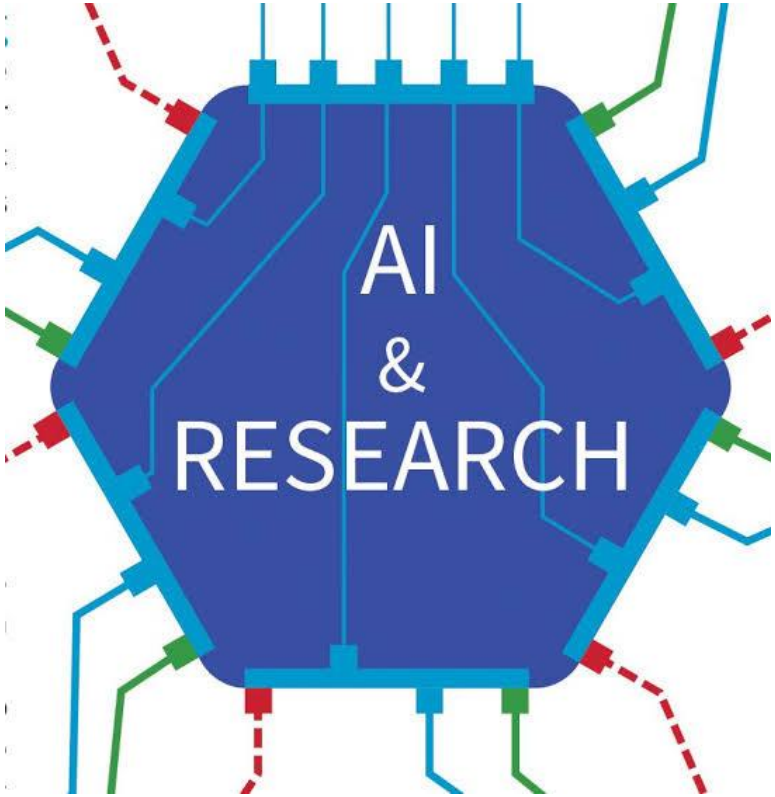
b. Publisher-driven



c. Funder/Publisher-driven

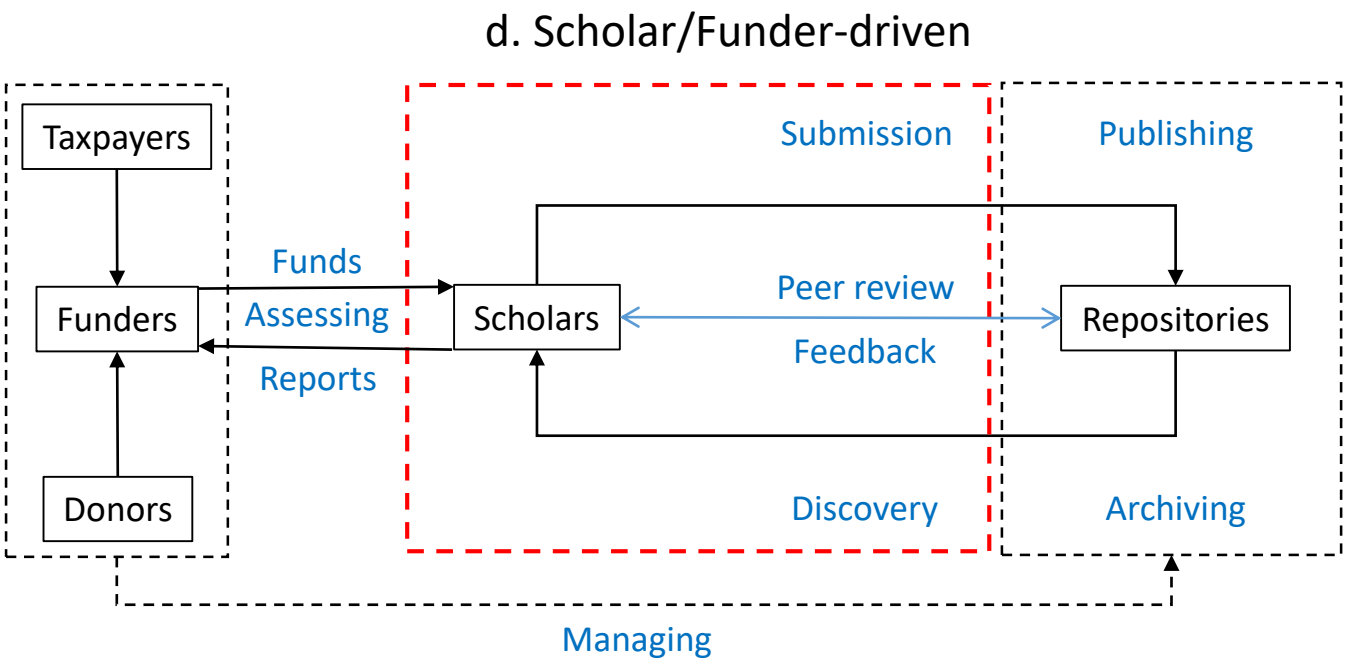


Future Scholarly Communication



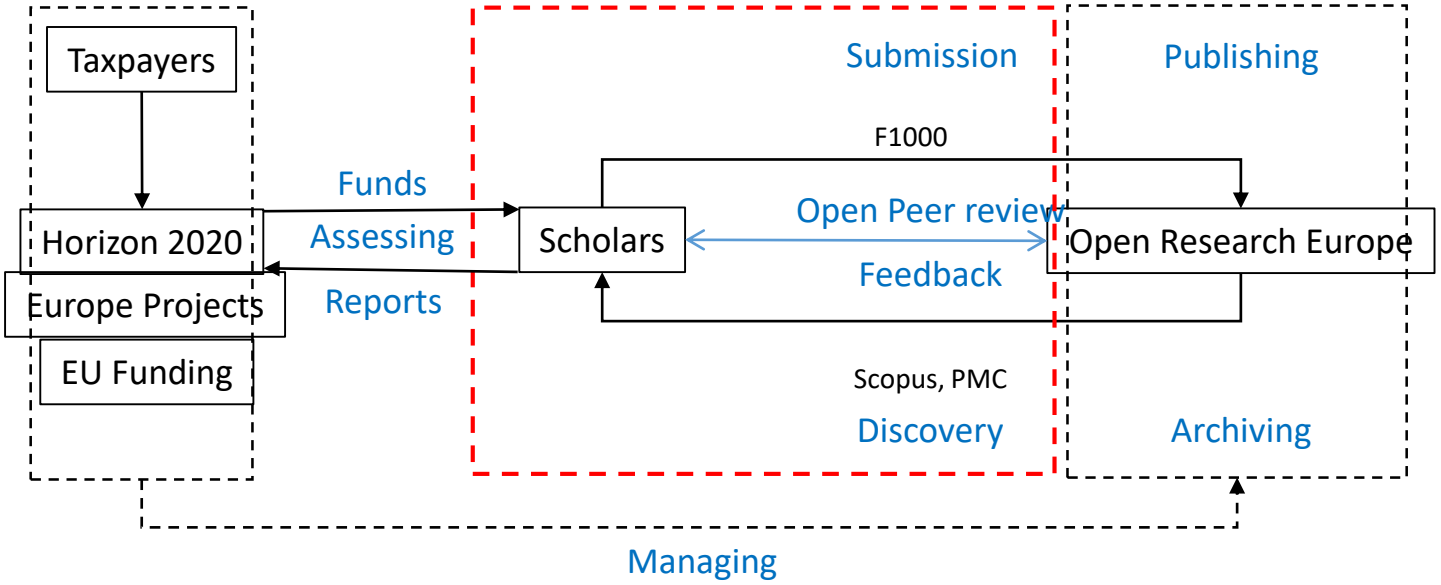
Future Scholarly Communication

Desired Future Scholarly Communication Model



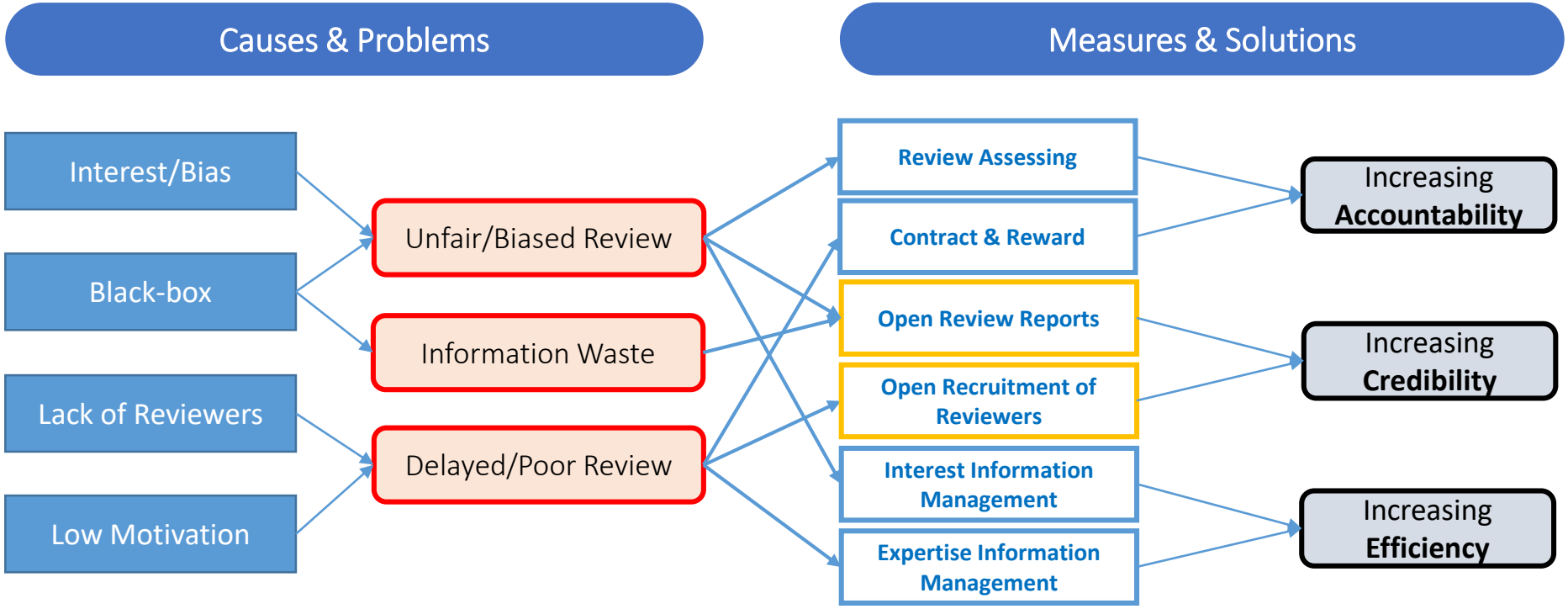
Future Scholarly Communication

Open Research Europe (ORE) Model



Future Scholarly Communication

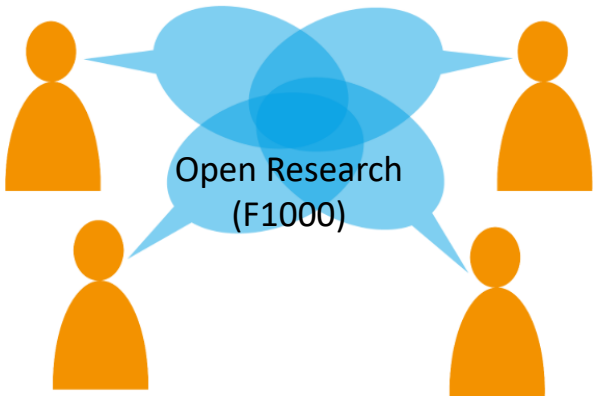
Problem-solving Model for Journal Publishing



* Source: Dong-Hoon Choi, Tae-Sul Seo, Development of an open peer review system using blockchain and reviewer recommendation technologies, Science Editing, 8(1), 104-111, 2021. (https://doi.org/10.6087/kcse.237)

Future Scholarly Communication

Candidate Systems for Future Scholarly Communication



- Increasing Credibility
  - Openness
  - Transparency
  - Post-publishing



- Increasing Accountability
  - Smart Contract
  - Coin Economy
  - Provenance



- Increasing Efficiency
  - Data
  - Intelligence
  - Reasoning

Future Scholarly Communication

F1000 Research Model

Article Submission

Basic check on each submission to ensure that all policies are adhered to.

Publication & Data Deposition

Article (with its source data) is **published within a week**, enabling **immediate viewing and citation**.

Open Peer Review & User Commenting

Expert **referees are** selected and **invited**.

Their **reports and names are published** alongside the article.

Together with the **authors' responses and comments** from registered users.

Article Revision

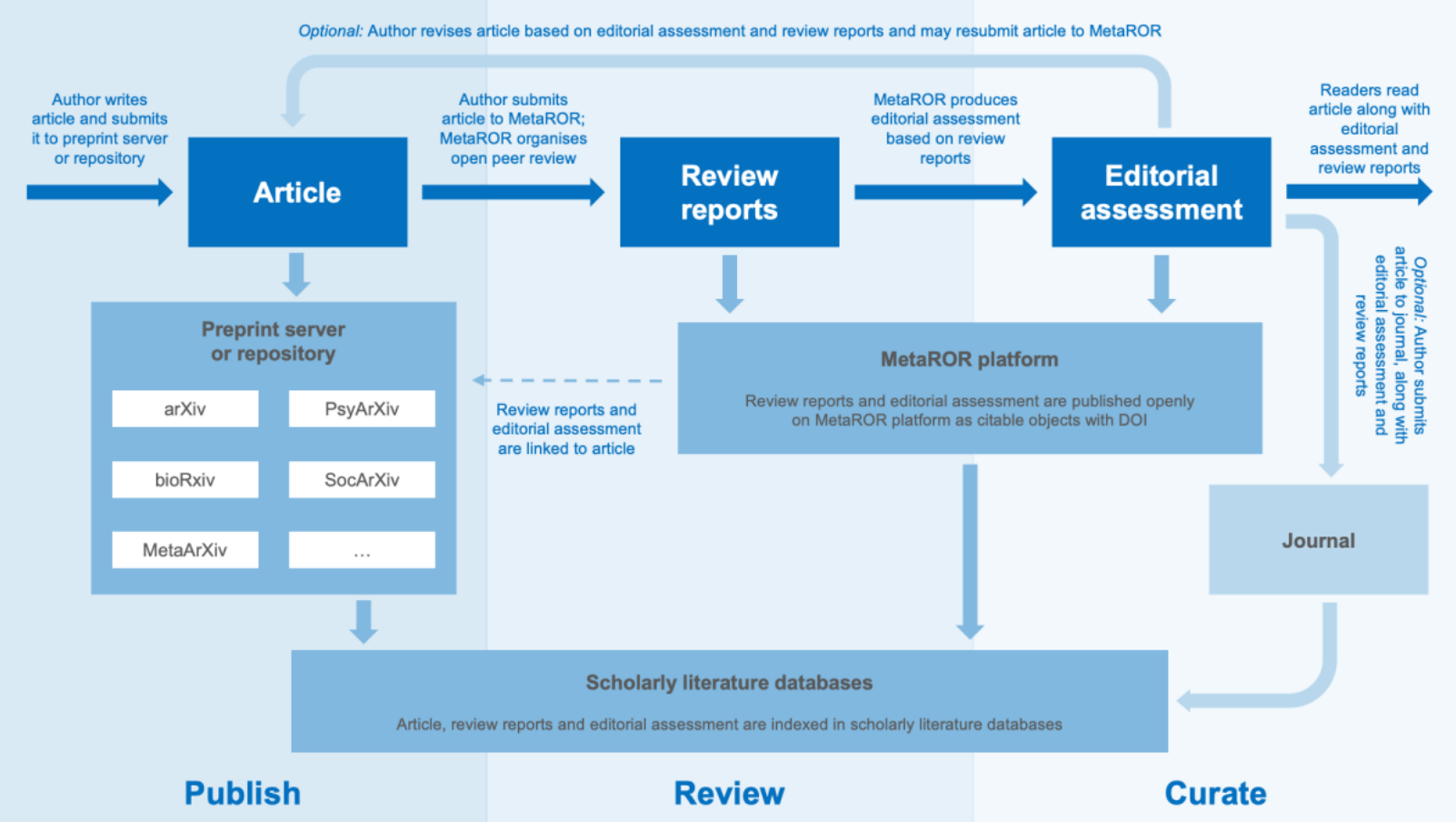
Authors could publish revised versions. **All versions of an article are linked** and independently citable.

Articles that pass peer review are indexed in external databases such as **PubMed**, **Scopus** and **Google Scholar**.

* Source: Cheol-Heui Yun, Professor, SNU

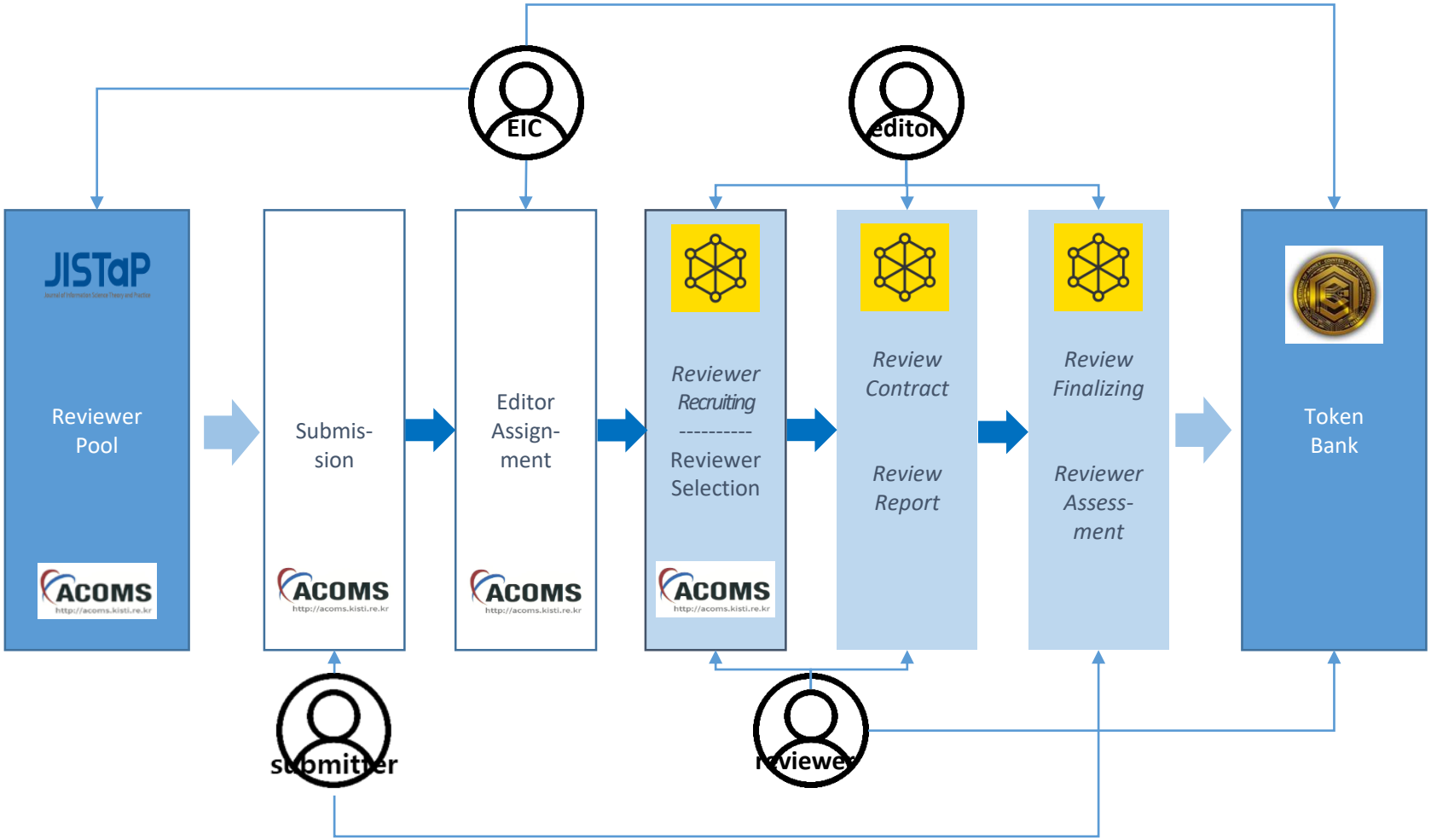
Future Scholarly Communication

MetaROR's PRC Model



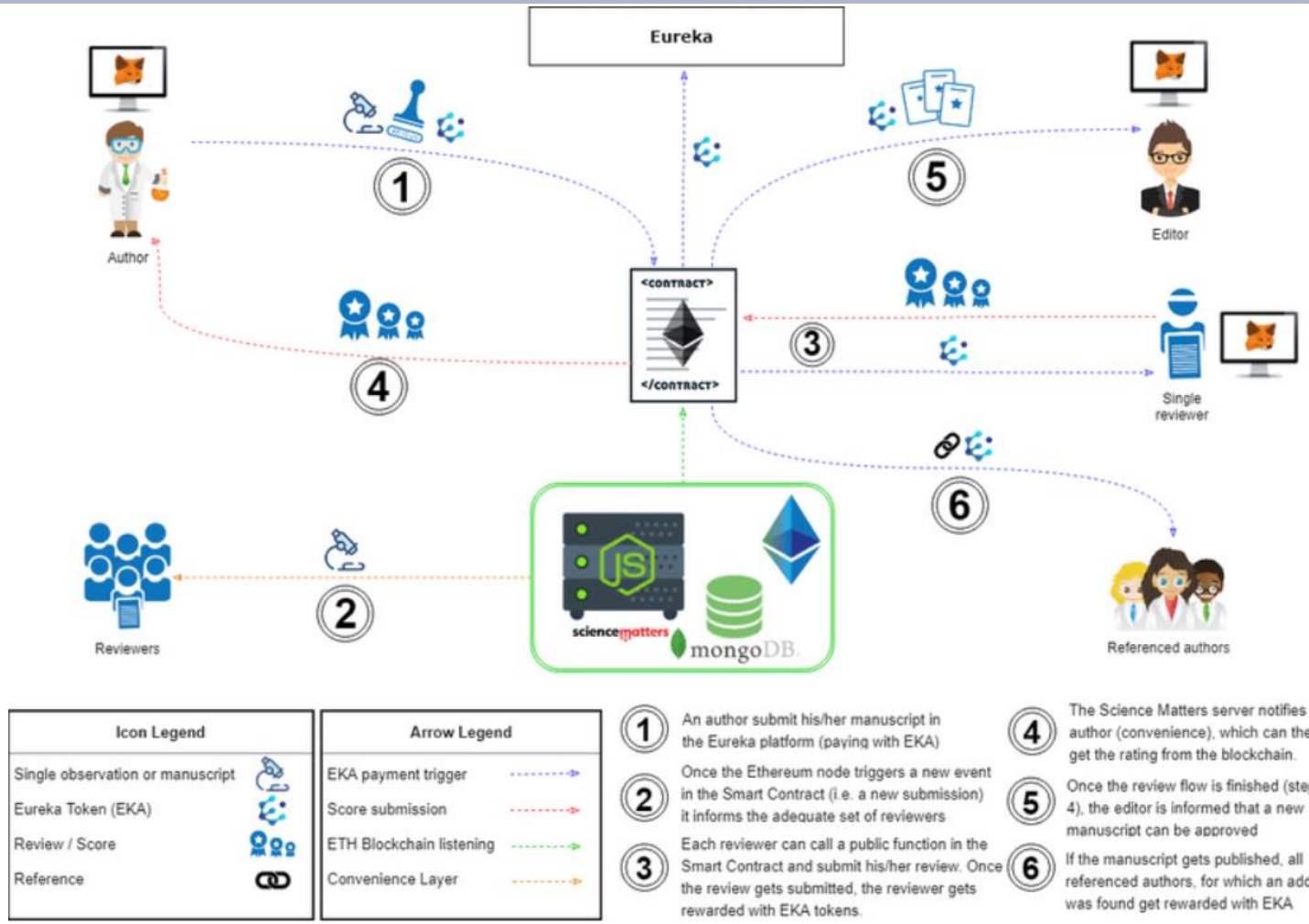
Future Scholarly Communication

KISTI's Blockchain Model



Future Scholarly Communication

Eureka's Blockchain Model



* Source: A. Schaufelbühl et al., "EUREKA – A Minimal Operational Prototype of a Blockchain-based Rating and Publishing System," 2019 IEEE International Conference on Blockchain and Cryptocurrency (ICBC), Seoul, Korea (South), 2019, pp. 13-14, doi: 10.1109/BLOC.2019.8751445.

Future Scholarly Communication

AI Model



* Source: Seo TS. Moments of scholarly communication: journal's journey to DX/AX. Korea Institute of Science and Technology Information (KISTI); 2026.

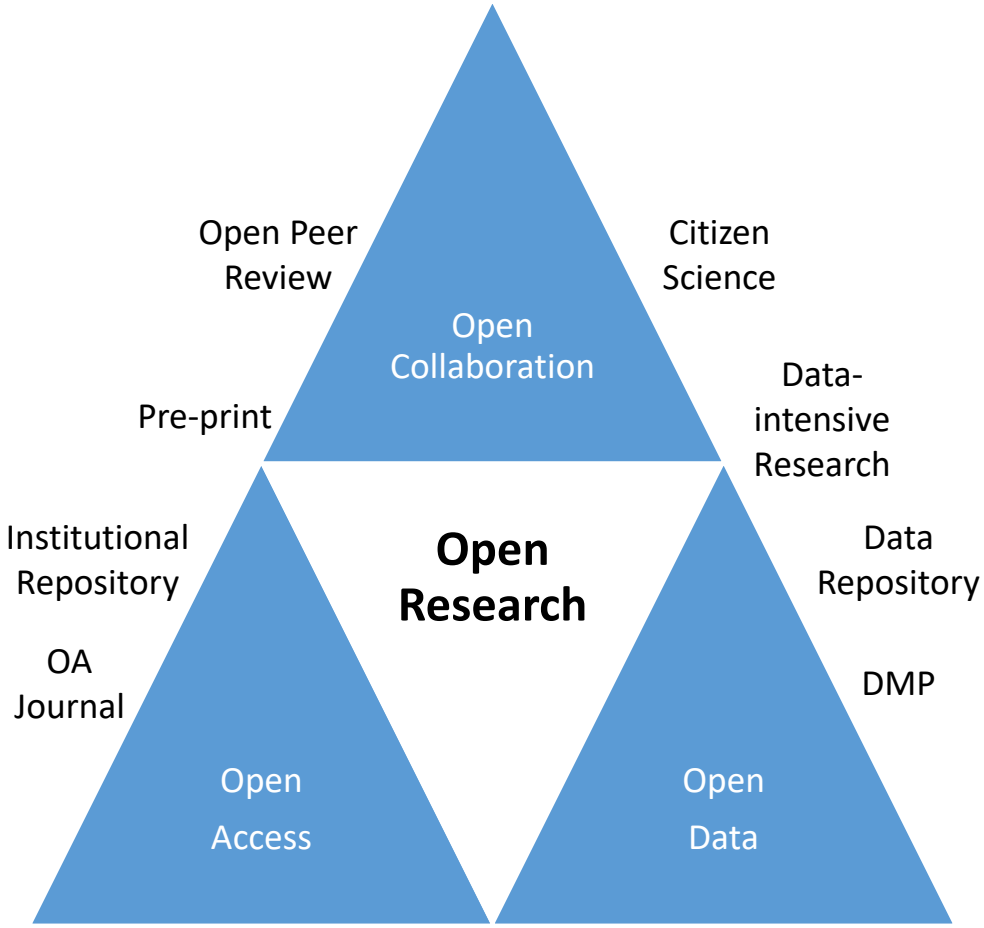
Concluding Remarks



Concluding Remarks

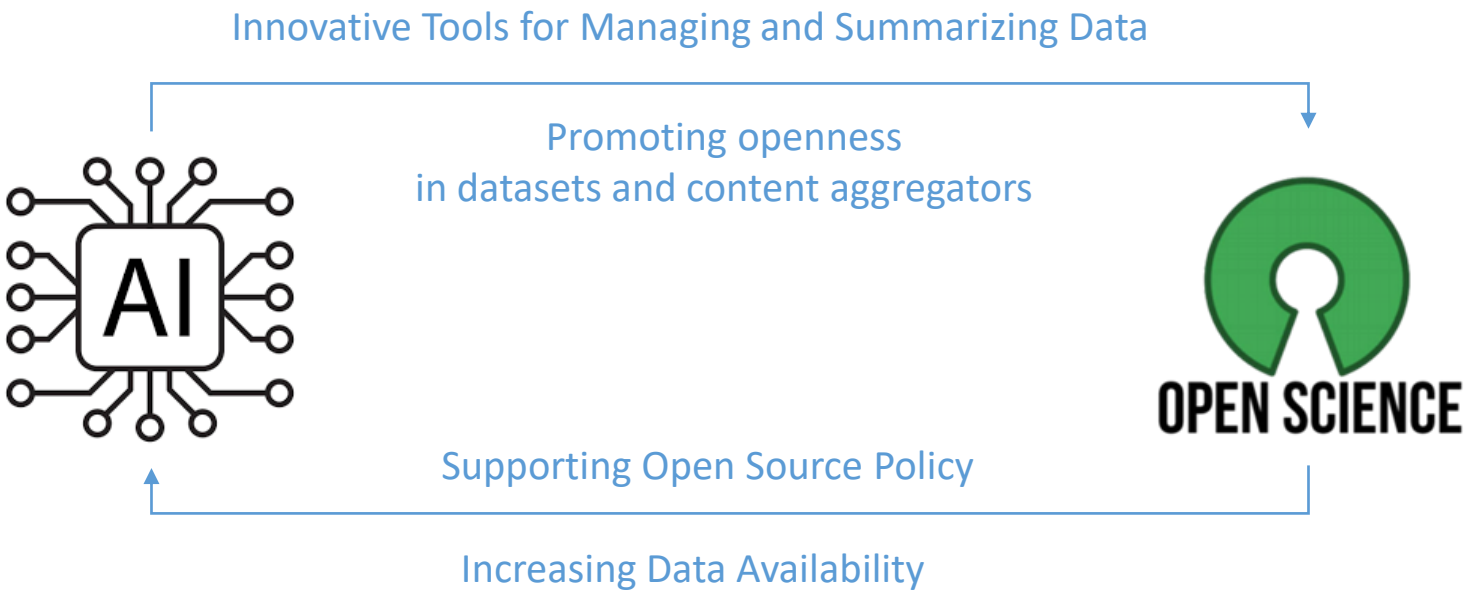
Open Science and Open Research





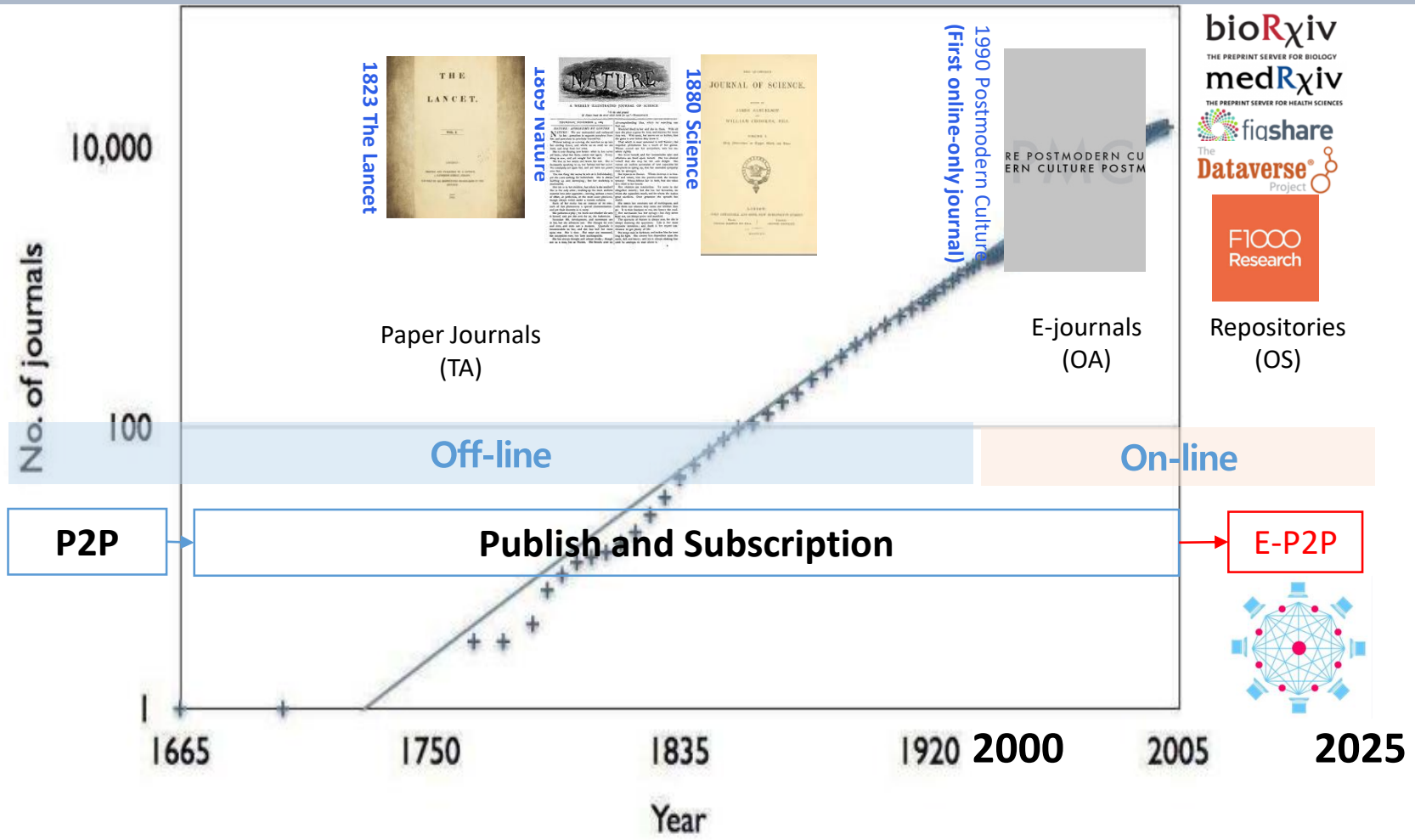
Concluding Remarks

Open Science and AI



Concluding Remarks

Open Science and Blockchain



Concluding Remarks

Recommendations for Editors and Funders

- Develop and strengthen journal data sharing policies.
- Consider introducing open peer review practices where appropriate.
- Support article-level metrics rather than journal-level indicators.
- Enhance interoperability with repositories and open science infrastructures.
- Monitor emerging funder-led publication platforms such as ORE.
- Align journal policies with open science and research assessment reform initiatives.

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THANK YOU