

Current Situation and Trend of Diamond Open Access in China

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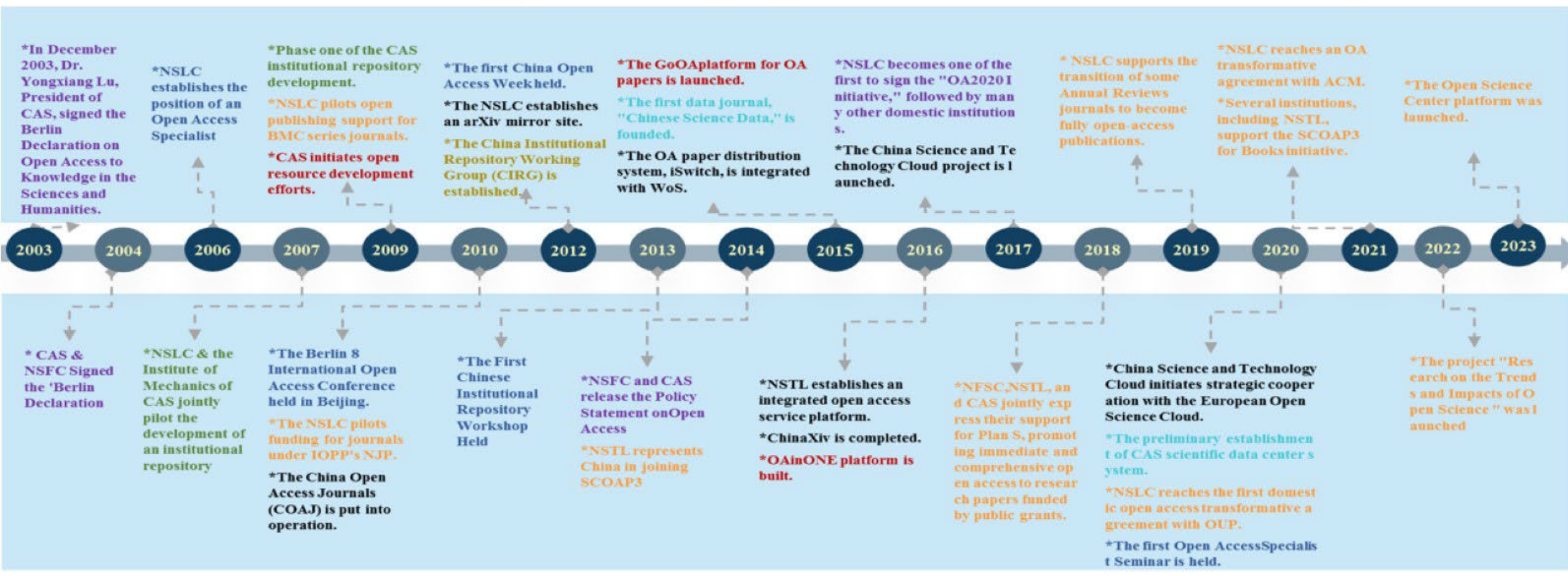
National Science Library, Chinese Academy of Sciences

2024.12



Preface

China has been actively promoting Open Access for more than 20 years.



Preface

China stands as a **prominent contributor** to scientific research output and plays a vital role in the **global Open Science** ecosystem. The Chinese scientific community and publishing industry have deeply integrated into global **Open Science practices**. Over the past two decades, China has been involved in **Open Science**, particularly in OA (Open Access) publishing, achieving significant accomplishments and becoming an essential force in international **Open Science and OA publishing**.

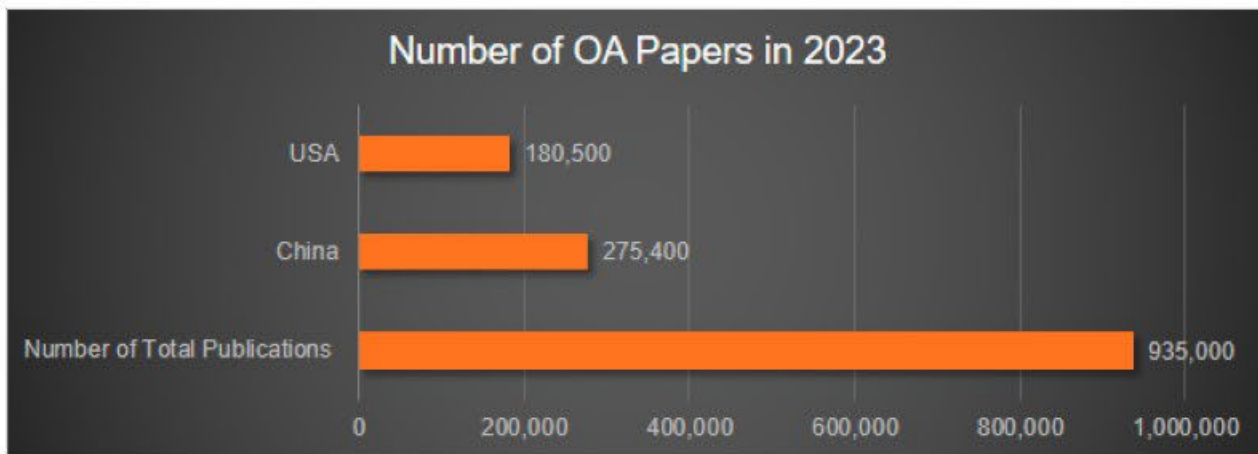


Outline

- 1. The Current State of OA Publishing in China**
- 2. China's Policies and Actions to Promote Diamond OA**
- 3. China's Development of Infrastructure to Support Diamond OA**
- 4. China's Strategy for the Development of Diamond OA**

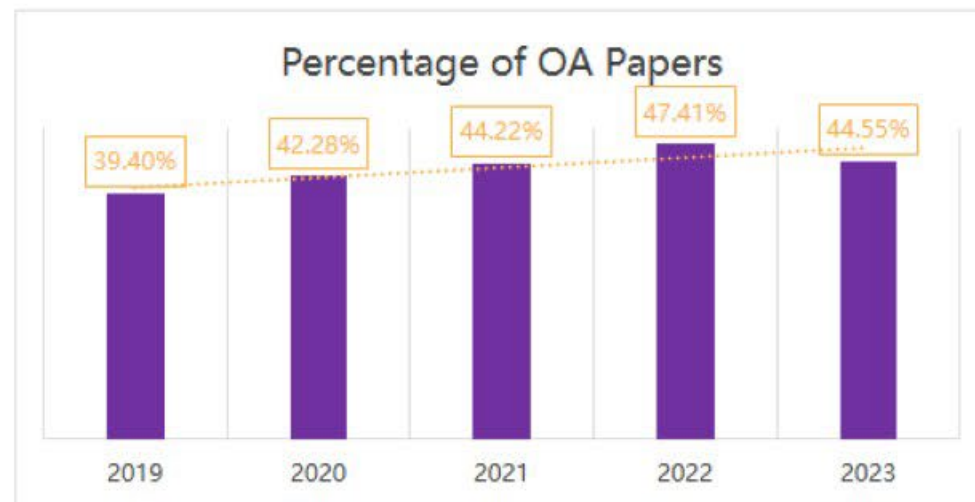
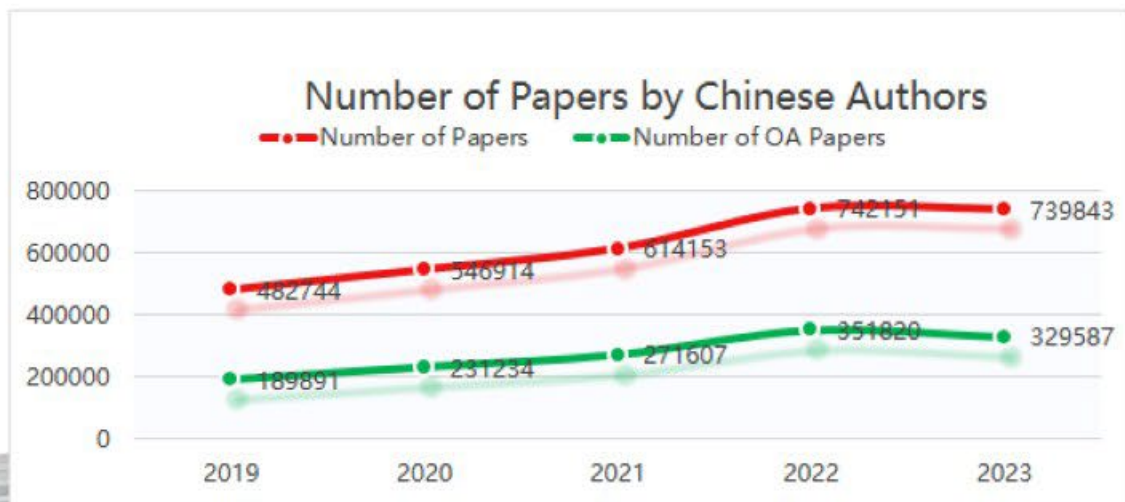


1.1 Global Performance of OA Papers Published by Chinese Authors



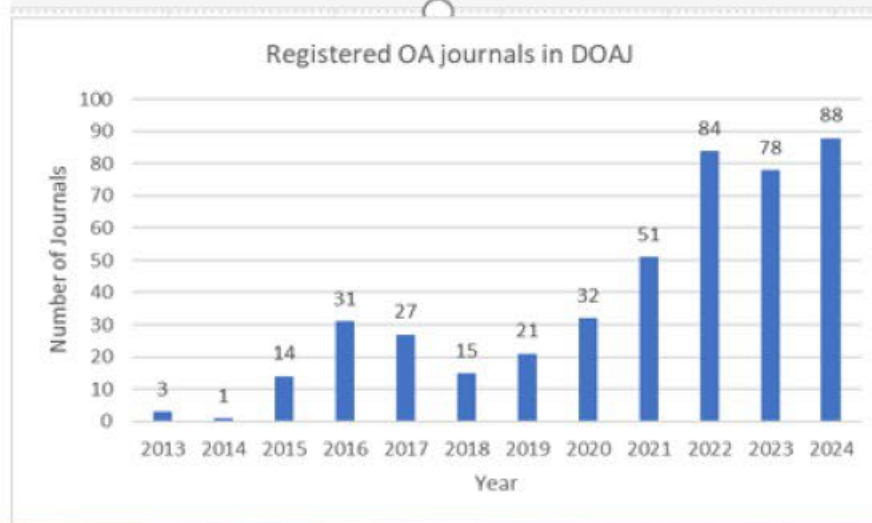
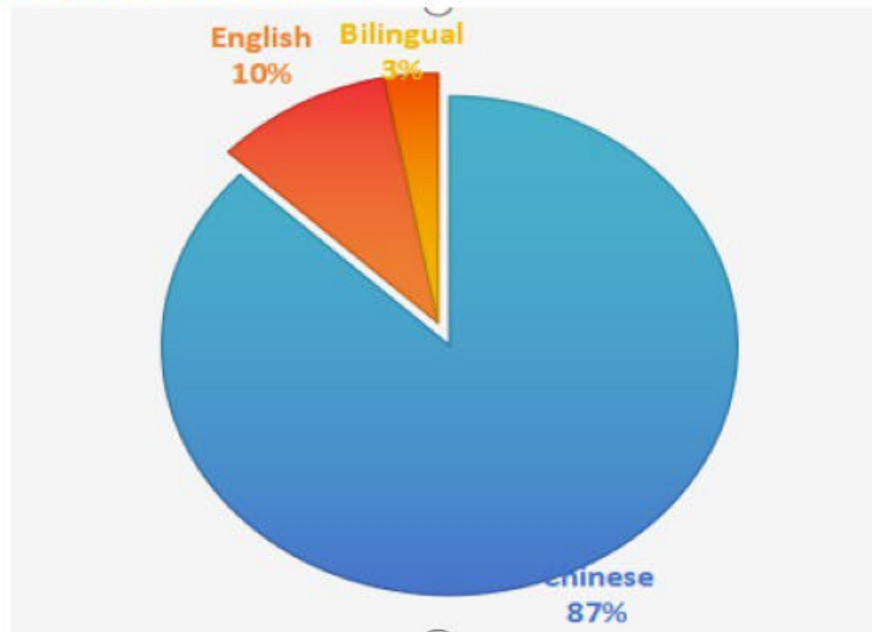
China ranks first globally in both the number and proportion of OA papers.

The number and proportion of OA papers by Chinese authors are **generally increasing**.



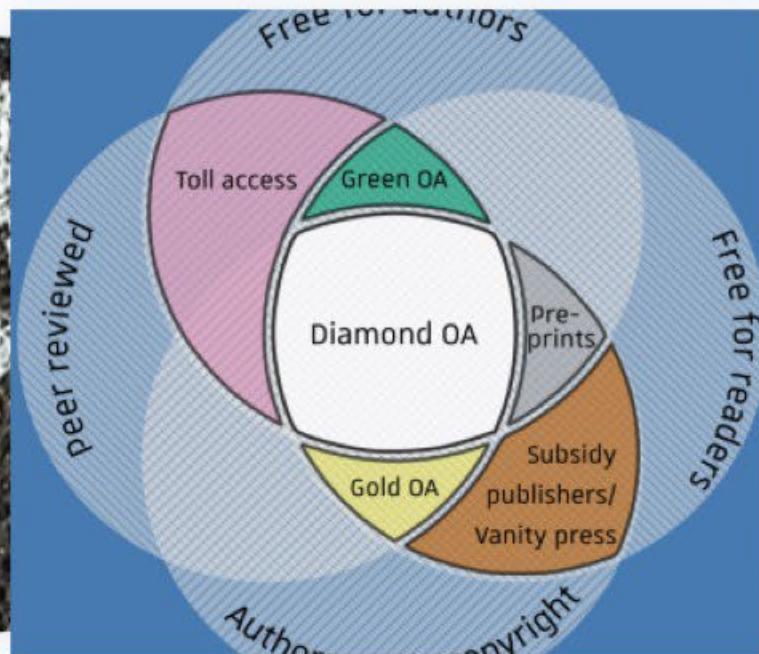
1.2 The Current Landscape of OA Journals Based in China

- **The Landscape of OA Journals:** **5,211** STM journals based in China, with **87%** are **in Chinese**, approximately **10% in English**, and about **3% are bilingual** (Chinese-English).
- **The OA Percentage:** Approximately **36.5%** (over one-third) journals adopt the OA model, and this number **continues to grow**.
- **The Proportion of OA Model:** English journals **significantly higher than** that of Chinese journals.



1.3 Open Access (OA) Models for STM Journals Based in China

- **The Ways to Achieve OA:** China-based Journals act OA through various ways. Given China's unique circumstances, it is **not feasible to simply apply the international OA publishing classification models directly.**



Diamond OA diagram (© J. Farquharson)

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2.1 NOT Commercial Business: Public Interest Activity Supporting Scientific and Technological Innovation

- **Average:** Each journal receives an average annual funding of at least \$20,000 from the government agencies or institutions (public funding).
- **Diamond OA:** Vast majority of journal' s operational costs are funded and supported by the government agencies and institutions (public funding).

Journals of China:
All belong to
Diamond OA?



DOAS
DIAMOND Open Access Standard



2.2 Substantial funds in the development of STM journals

Key STM Journal Foundations

China STM Journal Excellence Action Plan

- ◆ Over two phases spanning ten years, **nearly \$300 million** has been invested to support STM journal development.
- ◆ Approximately **200 English journals, 200 Chinese journals, and 240 newly established journals** have received public financial funding.

Chinese Academy of Sciences Boutique Journals Program

- ◆ The Chinese Academy of Sciences (CAS) is major publisher of scientific journals.
- ◆ In 2024, CAS invested over **\$2 million** in journal development, with funding provided to **30 English journals and 40 Chinese journals**.

Provincial STM Journal Excellence Action Plan

- ◆ The provincial science and technology associations, and other relevant entities in China have successively launched support projects for STM journals, with a focus on the development of English-language journals.
- ◆ Beijing, Hunan, Shaanxi, Jiangsu, Shanghai, Sichuan, Chongqing, Hubei, and Guangdong all have dedicated journal fund projects, with an annual cumulative investment of nearly **\$3 million**.



2.3 China is Now the World's Largest Payer of APCs

- China has now become the **World's Largest Payer of Article Processing Charges (APCs)**. China paid a total of \$750 million in APCs in 2023, accounting for 28% of the global total.
- From 2015 to 2020, China's total APC expenditure reached \$1.355 billion, surpassing USA \$187 million during the same period.
- From 2021 to 2023, the **National Natural Science Foundation of China** (NSFC) has consistently **ranked first globally** for three consecutive years in supporting the publication of gold open access (OA) papers, significantly surpassing the number supported by any other fund.
- **Almost all of APCs are paid by Public Funding.**



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Scientific Data Repository

- A series of national-level **scientific data repositories** has been established, facilitating the submission, long-term preservation, and sharing of scientific data.
- Data platforms adopts the **FAIR principles** for data sharing, underpinning the public archiving and open dissemination of research data linked to publications.



■ Preprint Platform

- China has established several preprint platforms and formed the **Preprint Platform Development Alliance**. Member platforms share metadata.
- An innovative Academic Communication Model of **'preprint-open peer review-publication'** has been recognized by academic community.

Members of Alliance	Organiser
The National Preprint Platform	Institute of Science and Technology Information of China(ISTIC)
ChinaXiv	National Science Library , Chinese Academy of Sciences (NSLC)
Scienceaper Online	China Ministry of Education Science and Technology Development Center
biomedRxiv	Chinese Academy of Medical Sciences



国家预印本平台

2.7 million preprints



ChinaXiv
中国科学院科技论文预发布平台

37 institutions
240 journals
19 subject-specific preprint sub-platforms



学术世界
哲学社会科学预印本
PHILOSOPHY AND SOCIAL SCIENCES PREPRINT

450 social science journals

■ Open Publishing and dissemination Platform

- **Open publishing and dissemination platform** supported by China STM Journal Excellence Action Plan.
- **A comprehensive publishing solution** encompassing manuscript submission, peer review, editing and production, publication, metadata compilation, dissemination, and scientific evaluation.



SciEngine

569+
Journals

693220+
Articles

135078244+
Accesses



Frontiers

178+
Journals

40542+
Articles

47511317+
Accesses

SciOpen

134+
Journals

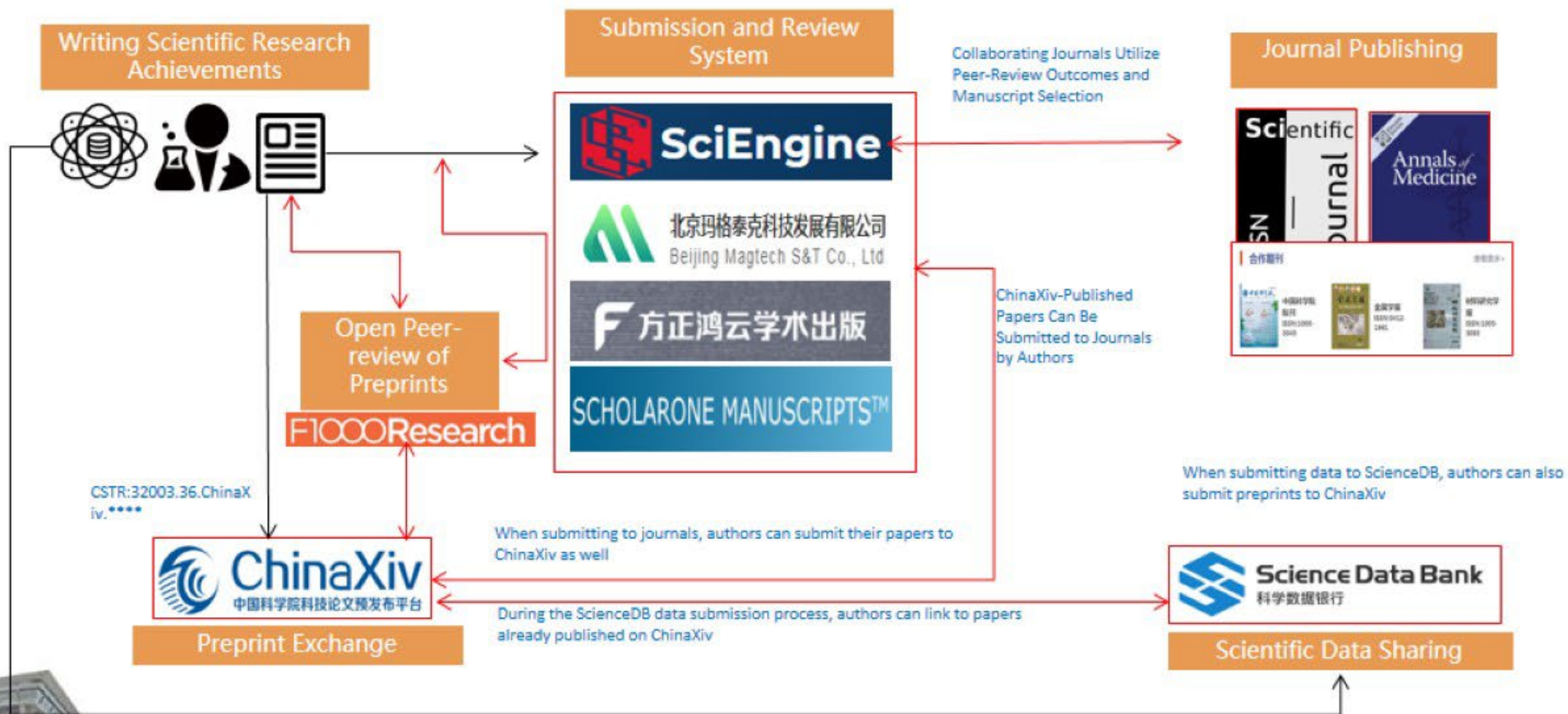
34500+
Articles

10100+
supplementary material



■ Open Publishing and dissemination Platform

- Integrate Open Access, data sharing, and preprint exchanges into the formal publishing process, supporting transparent, efficient, and openly shared academic communication.



■ Institutional Repositories

- China has established **three major institutional repository consortia** targeting universities, the Chinese Academy of Sciences (CAS), and Public National Foundation outcomes.

The CAS Institutional Repository Grid provides **114 research institutes** with support of the establishment of institutional repositories. (CAS-GRID)

Alliance of Institutional Repositories	Objective
CAS Institutional Repository Grid	CAS and its affiliated research institutes
The University Institutional Repository Alliance	China primarily targets universities
Basic Research Knowledge Base	National Fund outcomes

中国科学院机构知识库网格
Chinese Academy of Sciences Institutional Repositories Grid

期刊论文 10944篇 | 会议论文 13622篇 | 其他 13274篇 | 专利 11469篇

研究所名称	学者数	访问数	下载量	成果总量
半导体研究所	1633	12406079	3087717	22229
测量与地球物理研...	0	114368	208	2269
长春光学精密机械...	795	9070105	1362577	29917
长春应用化学研究所	0	4174220	226485	23443
城市环境研究所	0	100683	5176	590
成都山地灾害与环...	597	2623158	70075	15153
大连化学物理研究所	0	5233183	751335	42791
地理科学与资源研...	0	3001089	681774	57944
地球化学研究所	0	2723610	32933	12795

3.2 Open Scholarly Article Services

- Integrate scholarly service platforms for STM journals and Social Science journals with OA model.

The National Center for Philosophy and Social Science Documentation is the largest OA platform for social sciences in China, containing **2,406 social science journals**.

The National Open Platform contains **1,379 STM journals**.



国家哲学社会科学文献中心
National Center for Philosophy and Social Sciences Documentation

习近平向2024年“读懂中国”国际会议（广州... 习近平向2024世界传统医药大会致贺信 习近平在第四次“一带一路”建设工作座谈会上... 习近平：必须坚持守正创新 习近平对新时代马克思主义理论研究和建设工程...	2024-12-03 2024-12-03 2024-12-03 2024-11-30 2024-11-29
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习近平新时代中国特色社会主义思想

国家科技期刊平台

工程与技术科学 488 种期刊	社科与管理 174 种期刊	农业科学 160 种期刊	医药科学 310 种期刊	自然科学 245 种期刊
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3.3 Public Academic Platform for Supporting International Open Academic Communications



PubScholar aims to:

- Provide high-quality public academic resources for the science & technology community
- Provide basic services including academic resource retrieval, content acquisition, exchange and sharing
- innovate Open Scholarly Communication

The platform is mainly built by :

- National Science Library, CAS
- Computer Network Information Center, CAS
- China Science Publishing & Media LTD

<https://pubscholar.cn>

■ Pubscholar

<https://pubscholar.cn>

- **Collaborators :**
34 Global Resource Partners
458 China Cooperative Journals

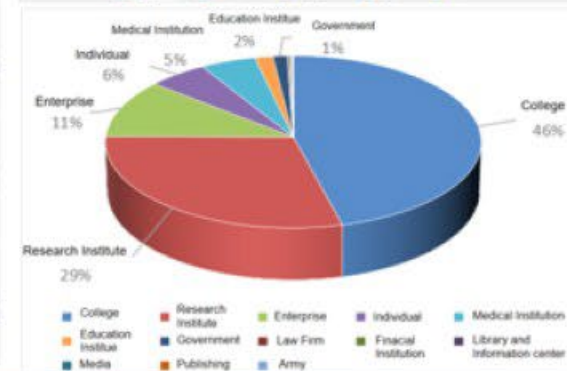
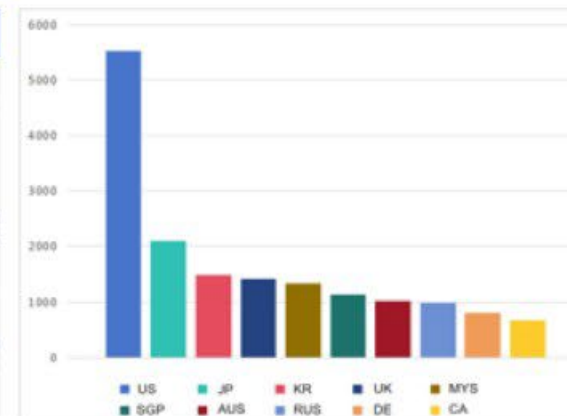
- **Resouces:**
Metadata in Total: 181 million
Full Text in Total: 86.4 million
Patents: 83 million
Preprints: 2.98 million
Dissertations: 1.07 million
Books: 0.12 million
Datasets: 0.52 million
Serves: 158 countries and territories



Resources Communities Terms About

396 journals

- Journal of Library and Information Science in Agriculture**
《农业图书馆学报》是由中华人民共和国农业农村部主管、中国农业科学院农业图书馆开发行。创刊于1984年，2020年正式由《农业图书馆》更名为《农业图书馆》。 Show
ISSN: 1002-1248, Frequency: 月刊
- journal of Computer Applications**
《计算机应用》创刊于1981年，是中国计算机学会会刊，以介绍计算机应用技术为重点，以促进计算机开发应用创新为目标。内容包括新闻、综述、论坛、... Show
ISSN: 1001-9081, Frequency: 月刊, Impact Factor: 1.144
- World Sci-Tech R & D**
《世界科技研究与开发》是由中国科学院主管、中国科学院文献情报中心主办的刊物。创刊于1979年10月，1993年经国家科委批准向国内外公开发行人，曾用名... Show
ISSN: 1006-6055, Frequency: 双月刊, Impact Factor: 0.375
- Food Science**
本刊作为中央级专业刊物，面向食品行业科研人员、企业工程技术人员和生产管理人员等专业领域的科研与实践活动，客观地展示了国内外食品行业的学术现状。... Show
ISSN: 1002-6630, Frequency: 半月刊, Impact Factor: 1.729
- Chinese General Practice**
《中国全科医学》杂志(CN 13-1222/R, ISSN 1007-9572, 旬刊)由国家卫生健康委大中心、中国科技馆、"HCCSE中国全科医学期刊(A+)"期刊,入选Scopus... Show
ISSN: 1007-9572, Frequency: 旬刊, Impact Factor: 1.967



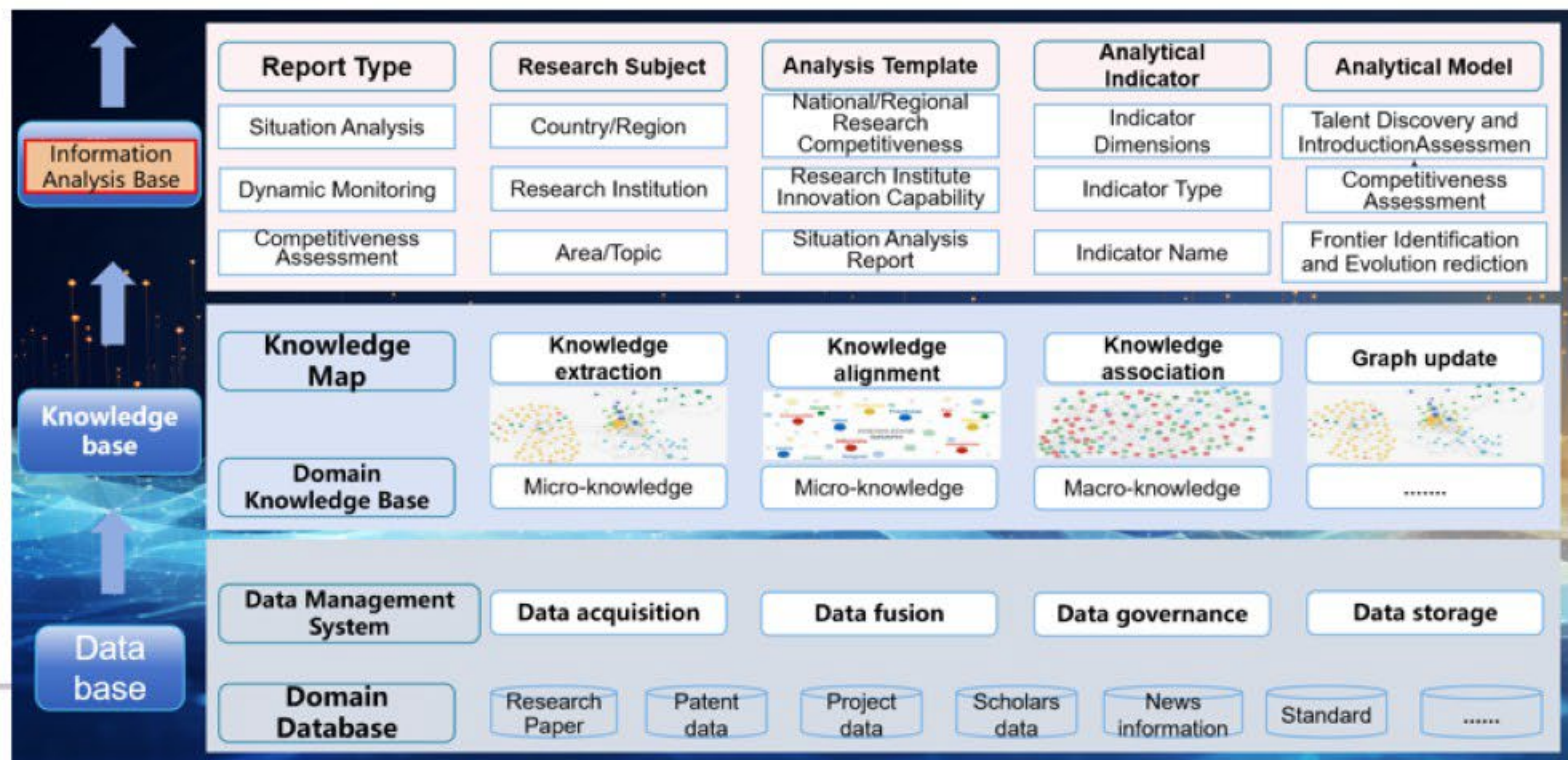
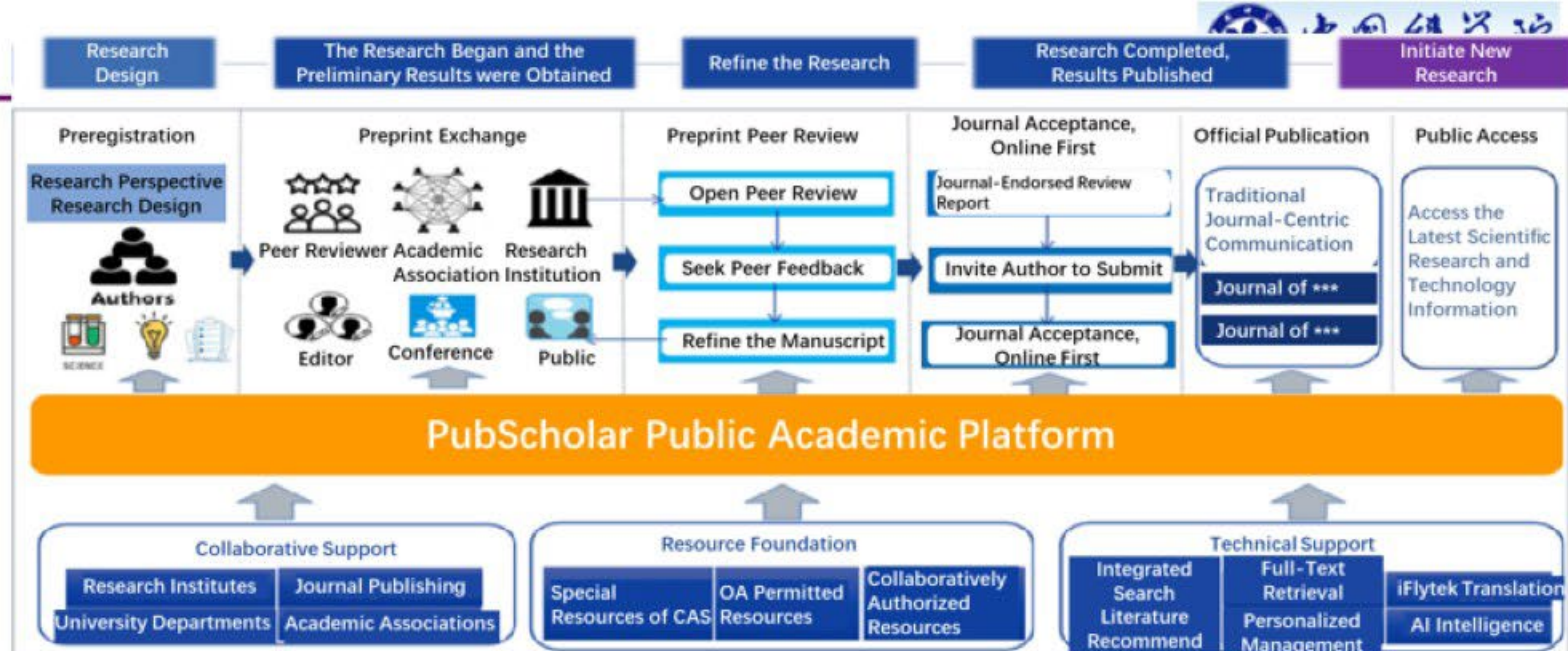
■ Pubscholar

Facilitate journal participation in open scholarly communication within specific subject areas

pubscholar.cn

Provide smart knowledge services

<https://pubscholar.cn>

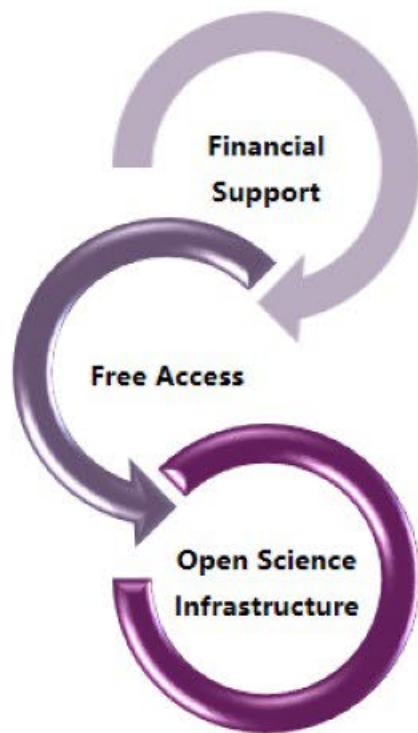


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4.1 Develop Publishing Ecosystem to Support Diamond OA Model



The development of China's journals has received **long-term support** from the public funding.

Nearly 70% of China's STM journals have achieved **Free Access**.

China has established **Open Science infrastructure** covering the entire publishing process, supporting journals in implementing open access and integrating into the open academic communication system.

Public Interest Activity Supporting Scientific and Technological Innovation



4.2 Advancing Diamond OA through Open Science Strategy

- In November 2024, China, Brazil, South Africa and the African Union have jointly launched the Initiative on International Cooperation in Open Science with the goal to promote the **Global South's access to global scientific and technological innovation achievements**.
- The initiative aims to promote global cooperation on science, technology and innovation, work to **achieve an open, fair, impartial and nondiscriminatory environment** for global science and technology development, and advance the sound development of Open Science globally.



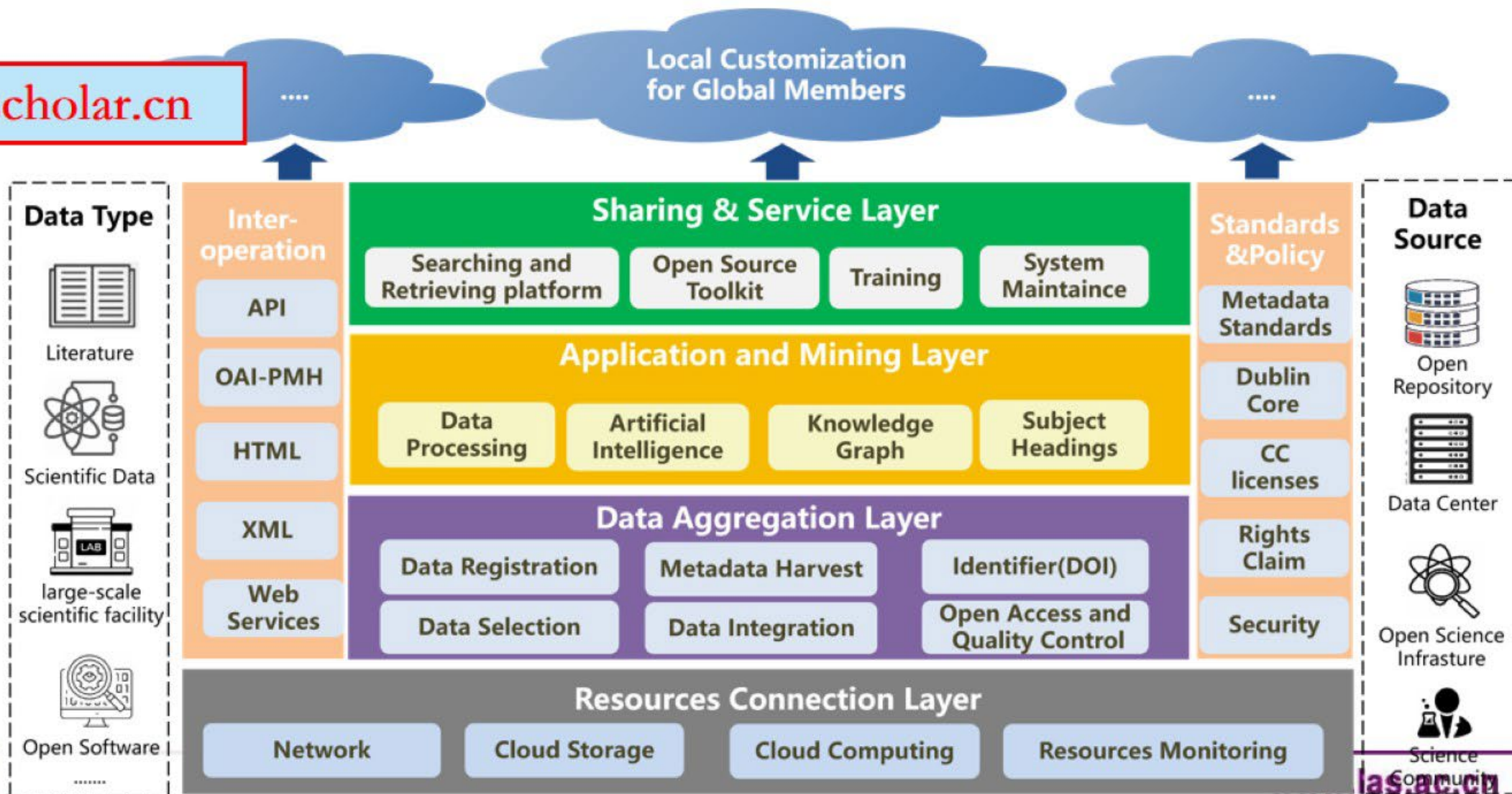
4.3 Create a national academic exchange platform and construct an open academic communication ecosystem based on PubScholar by CAS

- Adhering to a sustainable cooperative construction model and improving the PubScholar resource assurance system;
- Participating in the construction of global open science infrastructure and building a global knowledge and data sharing network;
- Promoting cooperative governance to support an open academic communication ecosystem.



Proposal for UNESCO Open Science Ten Year

<https://pubscholar.cn>



Contributing Chinese Insights and Solution to Global Open Science

- Engaging in international exchanges on open science and promoting cooperation among stakeholders in open science;
- Conducting policy research and practical exploration on open science to ensure alignment between Diamond OA and the Open Science strategy.



Thanks for your attention

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