



Open Science Metrics and Scholarly Communications

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Open Science means taking science outside the scientific community to **ensure** that it responds to the needs of contemporary societies.

Audrey Azoulay
UNESCO Director-General



**Open science could help science
unleash its full potential and
take up the challenges facing
our contemporary societies.**

Audrey Azoulay
UNESCO Director-General



UNESCO #Education...
@UNESCO

In global emergencies like #COVID19, #OpenScience accelerates the pace of research critical to combating the disease.

To allow the free flow of research data & ideas, our draft Recommendation on Open Science sets path to remove major obstacles: on.unesco.org/2SjSOAn

9:35 PM · Oct 3, 2020 · Hootsuite Inc.

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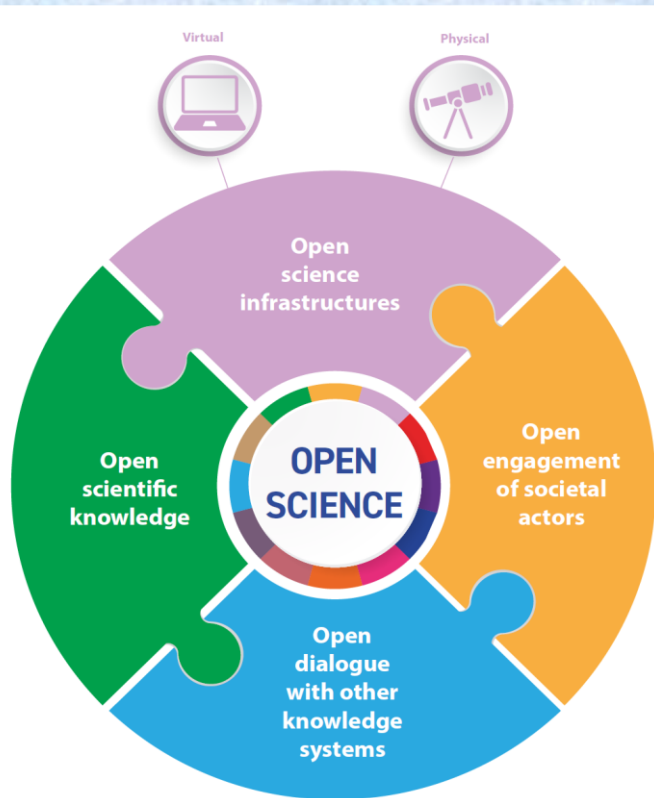


Kathy Watson @ · Oct 3, 2020
Replying to @UNESCO



Mohamed Ali ... · Oct 3, 2020
Replying to @UNESCO

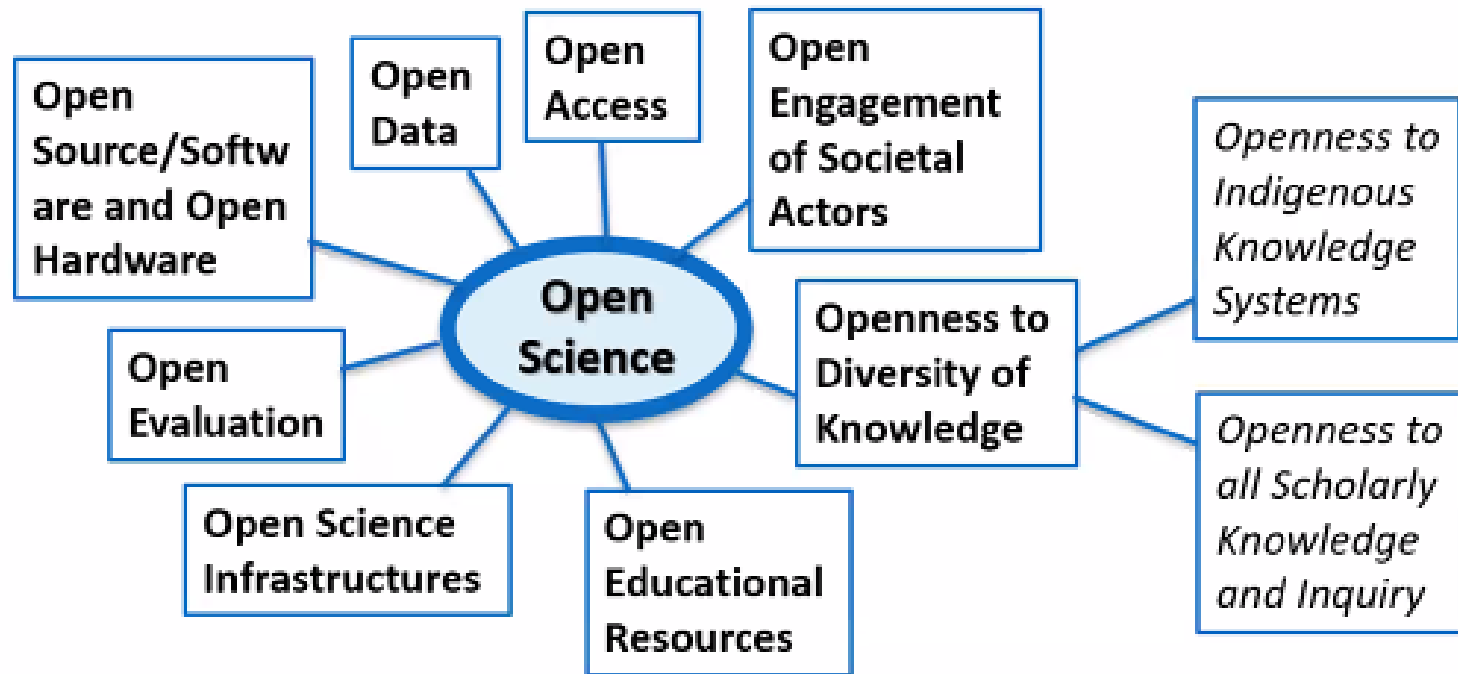
UNESCO Recommendation on Open Science



- **UNESCO Recommendation on Open Science** was adopted in November 2021, by 193 UNESCO Member States.
- **Open Science Infrastructure** is one of the key elements.
- **Open Science Infrastructures** refer to shared research infrastructures (virtual or physical, including major scientific equipment or sets of instruments... and digital infrastructures) that are needed to support open science and serve the needs of different communities.
- Open innovation testbeds including incubators, accessible research facilities, open license stewards, as well as science shops, science museums, science parks and exploratories, are additional examples of open science infrastructures providing common access to physical facilities, capabilities and services.
- Open science infrastructures are often the result of community-building efforts, which are crucial for their long-term sustainability and therefore should be not-for-profit and guarantee permanent and unrestricted access to all public to the largest extent possible.

Definition of Open Science

Open Science is a complex of elements, including:



UNESCO

Natural Science Sector

Source: UNESCO Recommendation on Open Science

Open Science to Society

Open Science embodies the movement to transform and **democratize the entire scientific process.**



Open Science allows scientific information, data and outputs to be more widely accessible and more reliably harnessed with the active engagement of all the stakeholders.

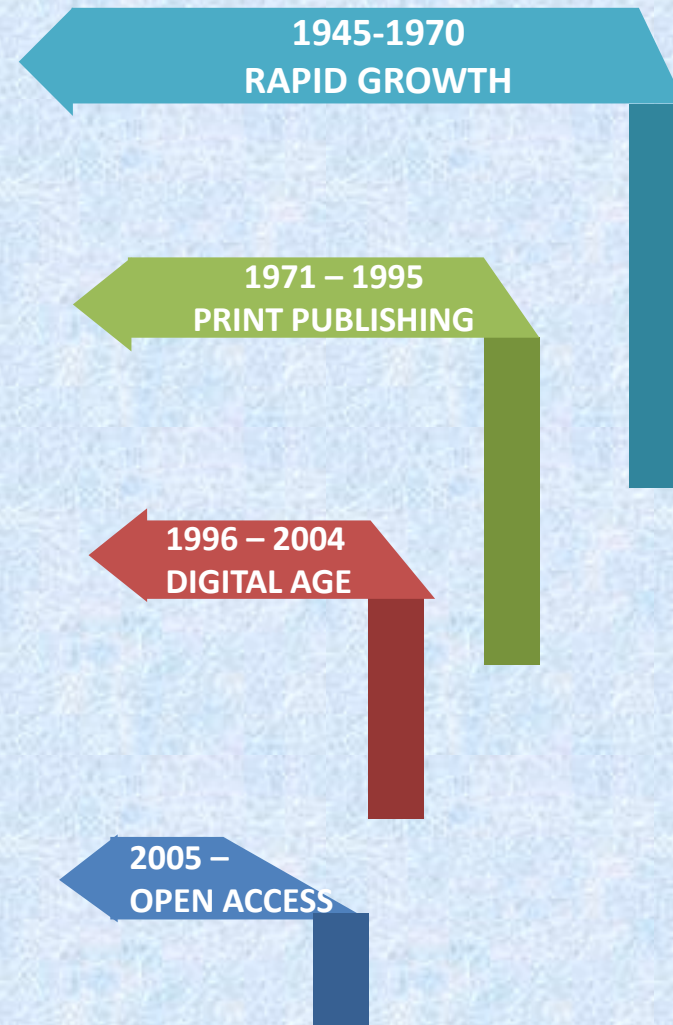
Open Science can be a true game changer in **bridging the science, technology and innovation gaps** between and within countries and fulfilling the **human right to science.**

Open Science is increasingly recognized as a **critical SDGs accelerator.**



Timeline of Key Developments in Scholarly Publishing

- Post Second World War research funding dramatically increased and confirmed the role of commercial publishers as powerful actors in scientific publishing.
- **1964: Journal Rankings And Impact Factor (I_f) Metrics Introduced By The Science Citation Index.**
- The cost of print journal subscriptions continued to rise year over year resulting in the Serial Pricing Crisis. Academic publishers started exploring pricing models for digital publishing.
- **1991: The University Licensing Project (TULIP) was Established. Elsevier And Nine University Libraries Explore Digital Publishing.**
- Biomed Central explored a new pricing model (Article Process Charge (APC)) which charged authors to enable free access to individual articles. Libraries are no longer purchasing tangible objects (books, journal issues); they negotiate digital licenses to access online content.
- **2002: Budapest Open Access Initiative Releases A Public Statement Of Open Access Principles**
- The Open Access movement continues to move forward. Publisher business models evolve to respond to demand for freely accessible research without barrier or restriction: hybrid, lay-over, new content licenses. The research ecosystem moves beyond Open Access to Open Science.
- **Four Functions Of Publishing Re-organized: Registration, Certification, Dissemination, Preservation. 2012: F1000 Research, PEERJ, and ELIFE are Launched.**



Source :

<https://www.eosc-portal.eu/sites/default/files/KI0518070ENN.en.pdf>

Open Science Movement

- The many advantages of Open Science Movement include:
 - Greater availability and accessibility of publicly funded scientific research outputs;
 - Possibility for rigorous peer-review processes;
 - Greater reproducibility and transparency of scientific works;
 - Greater impact of scientific research.

Source: Global Open Access Portal (GOAP), UNESCO

Scholarly Innovation and Research Outcomes in Commercial Platform

RESEARCH OUTPUTS



ARE THEY TRULY ACCESSIBLE FOR ALL?

Open Access Publishing: Bridging Digital Divide

Technological Changes

- The advent of technologies has proliferated the heavy and incredible growth of scholarly research conducted at universities and institutions around the world.
- The findings and recommendations of the research outcomes generally published in the scholarly journals, but the access to academic publishing is restricted to subscribers of articles.

Open Access Publishing

- The research product is generally government funded and the fruits are enjoyed by the private players as the researchers publish and handover their research outcomes to private publishers without any expectation.
- To access the published work, the researcher again has to pay to the aggregators to retrieve the academic content on purchase mode.

Open Access Publishing: Bridging Digital Divide

Technological Changes

- The problem took the shape of *International Academic Movement* and proposed new model for academic publishing called *Open access publishing*.
- The principles of open access are set out in *Berlin Declaration 2003*. It emphasizes on free and open online access to academic information such as publications and Research data

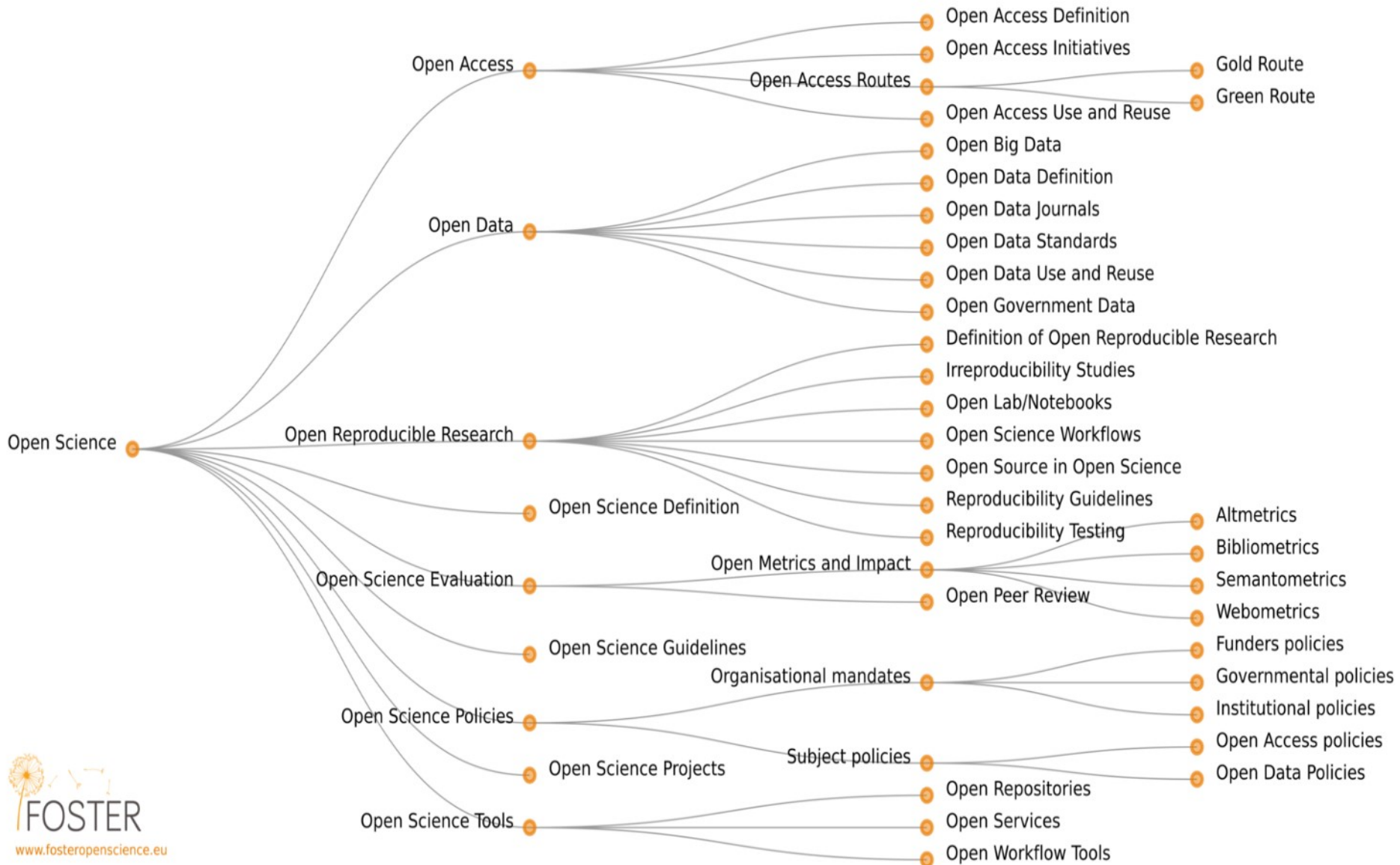
Open Access Publishing

- When anyone can read, download, copy, distribute, print or use it in education or another way within the legal agreements, the publication is called 'open access', as there are no financial, legal or technical barriers.
- The recommendations of the *Budapest Open Access Declaration*—including the use of liberal licensing (such as CC BY)— is widely recognized in the community as a means to make a work truly open access.

Open Publishing : Alternatives to Traditional Publishing Approaches



Open Science Taxonomy



Definitions

- Open Science represents a new approach to the scientific process based on cooperative work and new ways of diffusing knowledge by using digital technologies and new collaborative tools (European Commission, 2016)
- “to make the primary outputs of publicly funded research results – publications and the research data – publicly accessible in digital format with no or minimal restriction” (OECD, 2015:7)
- Open Science is about extending the principles of openness to the whole research cycle, fostering sharing and collaboration as early as possible thus entailing a systemic change to the way science and research is done.

(Source: www.fosteropenscience.eu/content/what-open-science-introduction).

Open Science

- Open Science is the movement to make scientific research and data accessible to all.
- It includes practices such as:
 - Publishing Open Scientific Research,
 - Campaigning for Open Access & generally making it easier to publish, and
 - Communicate Scientific Knowledge.
 - Other ways to make science more transparent and accessible during the research process. This includes
 - Open Science Notebook,
 - Citizen Science,
 - Aspects of Open Source Software,
 - Crowdfunded Research Projects.

Source: Global Open Access Portal, UNESCO

Open Science: Importance

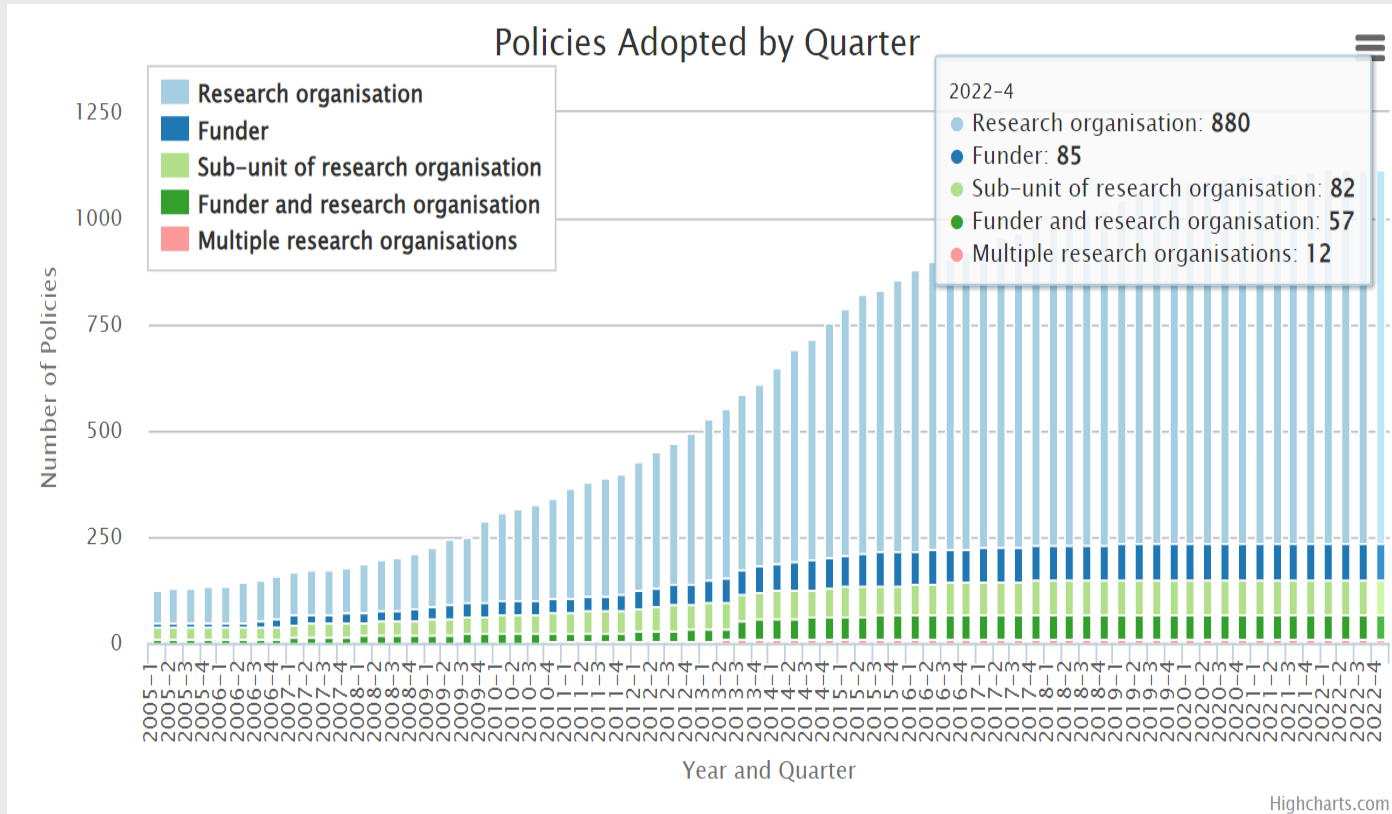
- To overcome the knowledge divides, we need more cooperation across disciplines and across borders to help governments develop more effective and inclusive policies, North and South. International networks, open data sources, co-creation of knowledge, open access to publishing and software – these are all vital to achieving this.

Irina Bokova | Director-General of UNESCO

*World Social Science Report 2016: Challenging Inequalities: Pathways to a
Just World*

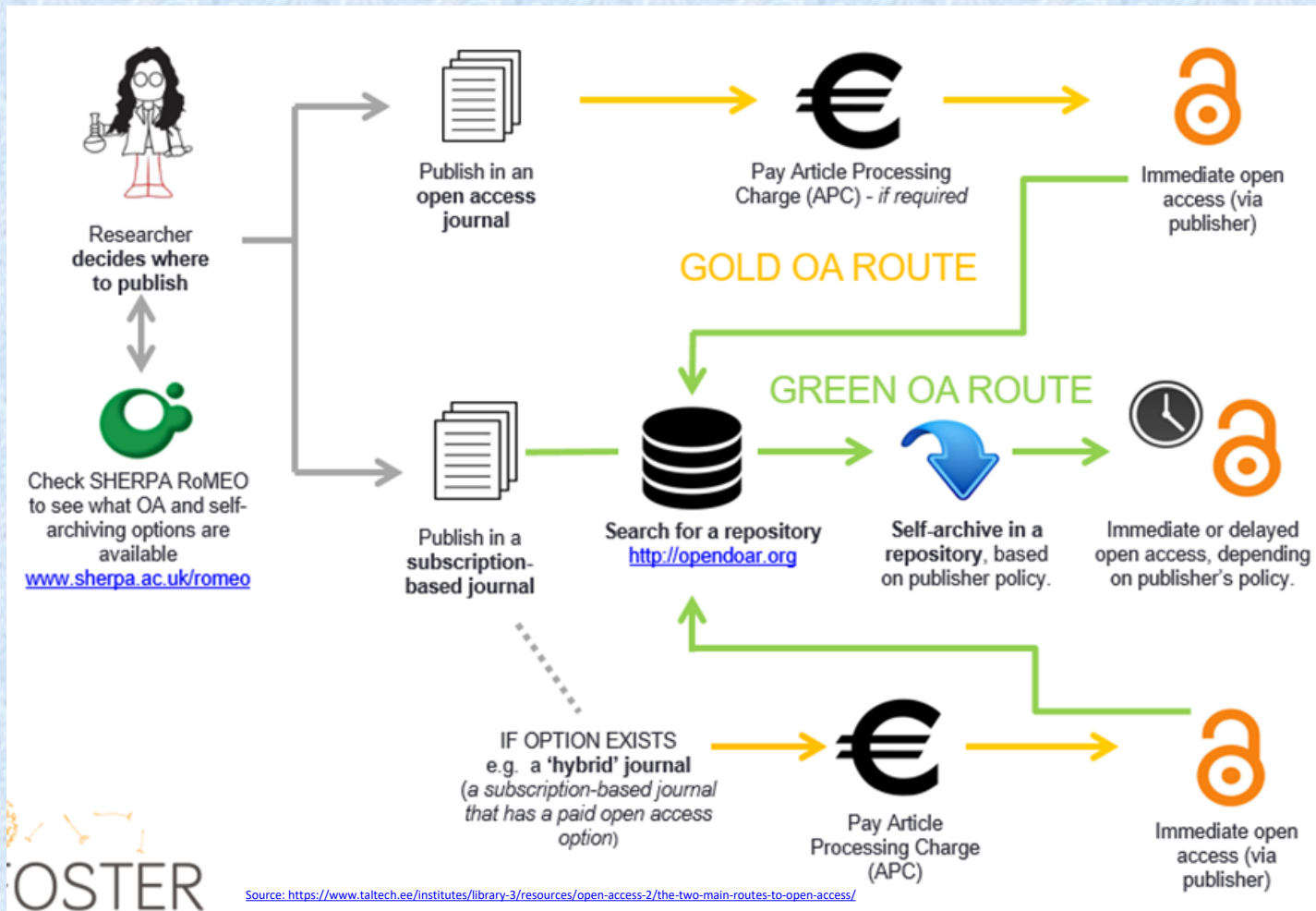
Growth of OA Policies Adopted Worldwide, 2005-2022

Number of items at this level: 0.



This list was generated on **Fri Jul 28 20:36:14 2023 BST**.

Routes of Open Access Publishing



Open Access to Information Promotes Rule of Law & Access to Justice

“If you have an apple and I have an apple and we exchange these apples then you and I will still each have one apple. But if you have an idea and I have an idea and we exchange these ideas, then each of us will have two ideas.”

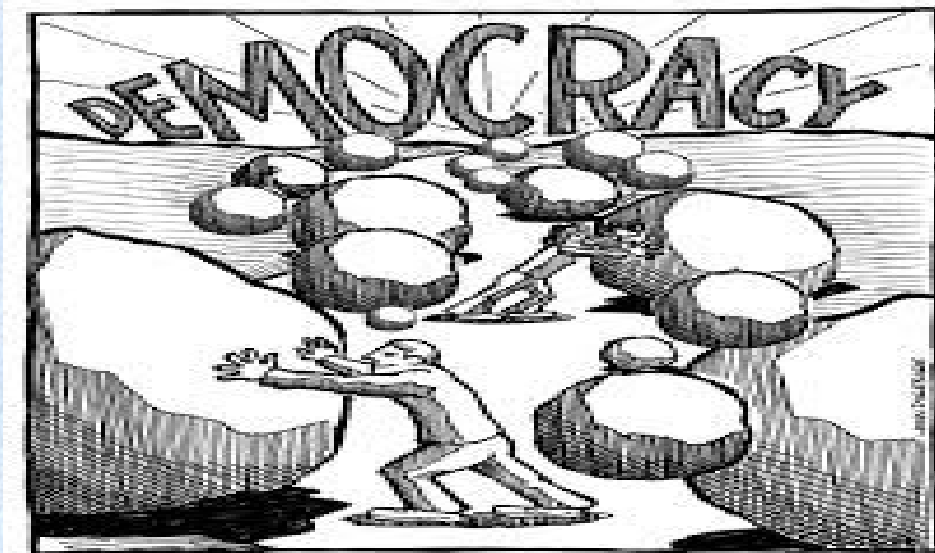
George Bernard Shaw

UN under Article 19 of the Universal Declaration of Human Rights (UDHR) states:

“Everyone has right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and import information and ideas through any media and regardless of frontiers”.

Principles: To Strengthen Democracy of Information

- ❖ Maximum Disclosure of Information
- ❖ Obligation to Publish & Dissemination
- ❖ Promotion of Open Government
- ❖ Limited Scope of Exceptions
- ❖ Processes to Facilitate Access



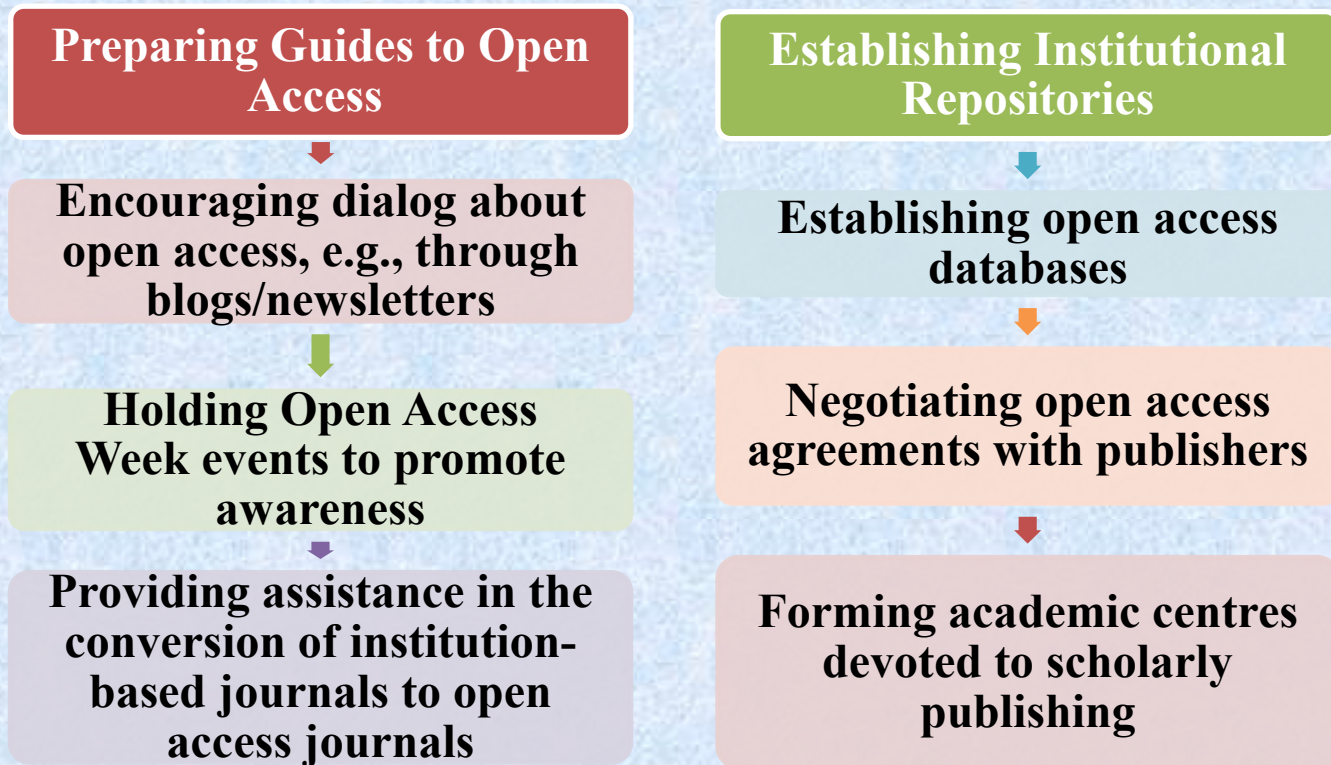
Impact of Open Information Dissemination: Individual and Community



Guarantee of Social, Economic & Political Justice

As enshrined in the Preamble of Indian Constitution

There are many ways that libraries and other institutions can support open access, ranging from simply providing information to enacting open access policies and establishing institutional repositories.



Copyright and Licensing

- Copyright plays a vital role in scholarly publishing world. It provides authors with a set of rights and enable them to utilize their work and recognized as the creator of the work. It includes moral and economic rights.
- Moral rights relate to the right to claim authorship for the work and object to any derogatory action in relation to their work; economic rights relate to issues of ownership in the use and reuse of materials.
- One of the important feature under *Berne Convention for the Protection of Literary and Artistic Works (1886)* is moral rights are not transferred even when authors transfer all economic rights.
- Although copyright is vested in the author, an author can grant all the rights that a publisher requires through licensing with copyright transfer as it is not necessary.

Licensing

When a copyright owner gives permission to a particular party to use the copyrighted work for a specific reason.



You can use my song called "Oo Oo Yeah Yeah"



Types of Digital Copyright License

Express Written Contractual License

An express contract is an exchange of promises in which the terms by which the parties agree to be bound are declared either *orally or in writing, or a combination of both*, at the time it is made.

Shrink Wrap Licenses

is an end user agreement (EULA) that is enclosed with *software in plastic-wrapped packaging*. Once the end user opens the packaging, the EULA is considered to be in effect.

Click Wrap Licenses

A click wrap agreement is a type of contract that is widely used with software licenses and online transactions in which a *user must agree to terms and conditions prior to using the product or service*.

Browse Wrap Licenses

Term used in Internet law to refer to a contract or license agreement covering *access to or use of materials on a web site or downloadable product*.

Bare or Implied Licenses

Occurs when a person enters or uses the property of another with the *express or implied permission of the owner or under circumstances that would provide a good defense against an action for trespass*.



Copyright & Open Licenses

The principal mechanism for exercising copyright and related rights is licensing. ”

Digital technologies emerged new Licensing models for scholarly publishing, contrast to traditional practices in academic and scholarly publishing, raises various important issues and concerns in relation to transfer of rights from author to publisher and bring new forms of licensing models in open publishing.

All Rights Reserved

Copyright

Its Mine. I do NOT allow you to take this material and repurpose.

You need to ask my permission

To use this

Open License

Its Mine. I DO allow you to take this material and repurpose.

Just remember to make proper attribution. You don't need to ask my permission to use this.

What is Open Licensing?

A legal document that give permission beyond copyright: **5Rs**

Retain

The right to make, own, and control copies of the content.

Reuse

The right to use the content in a wide range of ways (e.g., in a class, in a study group, on a website, in a video)

Redistribute

The right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend).



Revise

The right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language).

Remix

The right to combine the original or revised content with other open content to create something new (e.g., incorporate the content into a mashup).



How Open is Your Content?

The license you choose has a big impact on how your work will be shared and reused.



Classification of Open Licenses

Free or Open Licenses are subset of public copyright licenses. They include free and open source software licenses and free content licenses.



Classification of Open Licenses

Public-domain-equivalent License

are licenses that grant public-domain-like rights or/and act as waivers. They are used to make copyrighted works usable by anyone without conditions, while avoiding the complexities of attribution or license compatibility that occur with other licenses.



WTFPL license



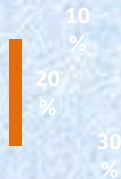
CC0 License

Against DRM 2.0

is a free copyleft license for artworks. It is the first free content license that contains a clause about related rights and a clause against DRM.



Unlicense



Classification of Open Licenses

Permissive Software License

Also called BSD-like or BSD-style license, a free-software license with minimal requirements about how the software can be redistributed.

- MIT License
- BSD licenses
- Apple Public Source License
- Apache License

Copyleft Software licenses

Copyleft type licenses are a novel use of existing copyright law to ensure a work remains freely available

- GNU General Public License
- Creative Commons Attribution Share-Alike
- Mozilla Public License

The Open Content License

is a share-alike public copyright license by Open Content Project in 1998. The license can be applied to a work to make it open content. It is one of the earliest non-software free content licenses.

Classification of Open Licenses

Open Publication License (OPL)

was published by the Open Content Project in 1999 as a public copyright license for documents. It is First public copyright license intended for contents (i.e., documents) rather than for software.

Open Database License (ODbL)

a copyleft ("share alike") license agreement allows users to freely share, modify, and use a database while maintaining this same freedom for others. ODbL is published by Open Data Commons, Open Knowledge International.

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Open Data Commons

is a set of legal tools to help you provide and use Open Data. The goals of the open-source data movement are similar to those of other "open(-source)" movements such as open-source software, hardware, open contents, open education, open educational resources, open government, open knowledge, open access, open science, and the open web.



Creative Commons

a non-profit organization that enables the sharing and use of creativity and knowledge through free legal tools. The CC movement is based on the notion of “some rights reserved”, providing a balance between creators and consumers of intellectual property. The concept allows clear indication of how work may be used, reused and distributed, while ownership remains in the control of authors and copyright owners.

Creative Commons Licenses which are considered Free

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CC0 is a legal tool for waiving as many rights as legally possible. Or, when not legally possible, CC0 acts as fallback as public domain equivalent license.

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BY-SA Attribution ShareAlike	✓	✓	✓	✓	✗
BY-ND Attribution NoDerivs	✓	✓	✓	✗	✓
BY-NC Attribution NonCommercial	✓	✓	✗	✓	✓
BY-NC-SA Attrib NonComm ShareAlike	✓	✓	✗	✓	✗
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Celebration of Promotional Weeks for Open Science

- International Open Access Week | October 2023 | Everywhere [<http://www.openaccessweek.org>]
- International Open Education Week | March 2023 | Everywhere [<https://www.openeducationweek.org>]
- International Data Week | November 2023 [<http://www.internationaldataweek.org>]: Theme for :: The theme of IDW 2021, IDW 2018 and IDW 2017 were respectively ‘Data to Improve Our World’, ‘Digital Frontiers of Global Science’ and ‘From Big Data to Open Data: Mobilising the Data Revolution’.

Open Access Books

OAPEN Library

<https://library.oapen.org>

- The OAPEN Library is a repository of peer reviewed open access books. It provides premium services to publishers, libraries, and funders in the areas of hosting, deposit, quality assurance, metadata enhancement, dissemination, usage analytics, and digital preservation.

Directory of Open Access Books

<http://DOABooks.org>

- DOAB is a directory of peer reviewed open access books and book publishers. It provides an indexing service with the aim of being a global and reliable source for OA book metadata and OA publishers.
- DOAB enhances discoverability and maximizes dissemination and visibility.
- All DOAB services are free of charge and all metadata is freely available (CC0).
- Unlike OAPEN, DOAB does not host books, but instead directs users towards the open access version.

Open Access Books Network

<https://hcommons.org/groups/open-access-books-network/>

- OABN is a space for passionate conversations about open access (OA) books. Researchers, publishers, librarians, infrastructure providers — indeed, anyone who is interested — can discuss any aspect of OA books here. This group was started by members of OAPEN, OPERAS, ScholarLed and SPARC Europe.
- Through the OABN you can join discussions, view an events calendar for open access books, participate in events, view past events and remain informed about open access books developments and news.

OA Books Toolkit

<https://www.oabooks-toolkit.org>



About OA ▾

The OA Books landscape ▾

About the Toolkit ▾

Support ▾

Resources ▾

OAPEN OA Books Toolkit



For authors

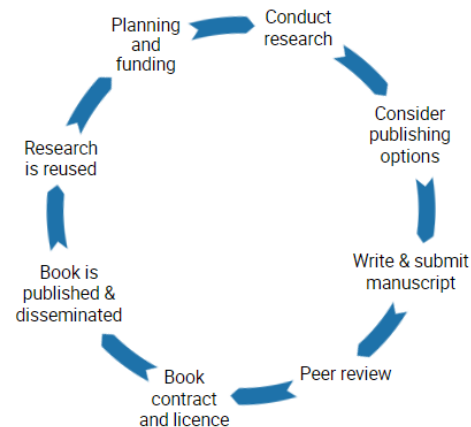
This toolkit aims to help book authors to better understand open access book publishing and to increase trust in open access books. You will be able to find relevant articles on open access book publishing following the research lifecycle, by browsing frequently asked questions or by searching with keywords.

Life cycle ▾

FAQ ▾

Keywords ▾

The OAPEN Open Access Books Toolkit covers specific topics related to open access books. Each article offers a quick and brief introduction to a particular aspect of open access book publishing. The toolkit also serves as a signposting tool: articles include a list of sources referenced, further reading and links to definitions of key terms.



Research life cycle

The toolkit makes use of a typical research lifecycle, consisting of the following eight stages. Click on each stage to find related articles.

- ▶ Planning and Funding
- ▶ Conduct Research
- ▶ Consider Publishing Options
- ▶ Write & submit manuscript
- ▶ Peer review
- ▶ Book contract and License
- ▶ Book is published & disseminated
- ▶ Research is reused

Open Access Scholarly Publishing Association

<https://oaspa.org>

- OASPA is a diverse community of organisations engaged in open scholarship with a mission to encourage and enable open access as the predominant model of communication for scholarly outputs.
- **Members**
- Approved members have been through a rigorous application review process and adhere to OASPA's Code of Conduct.
- Professional Publishers (Small)
- Professional Publishers (Medium)
- Professional Publishers (Large)
- Professional Publishers (Very Large) including ACS Publications, Cambridge University Press, Elsevier, Oxford University Press, SAGE Publishing, Springer Nature, Taylor & Francis, Thieme Group, Wiley
- Scholar Publishers
- Infrastructure & Services (Non-Commercial)
- Infrastructure & Services (Commercial)

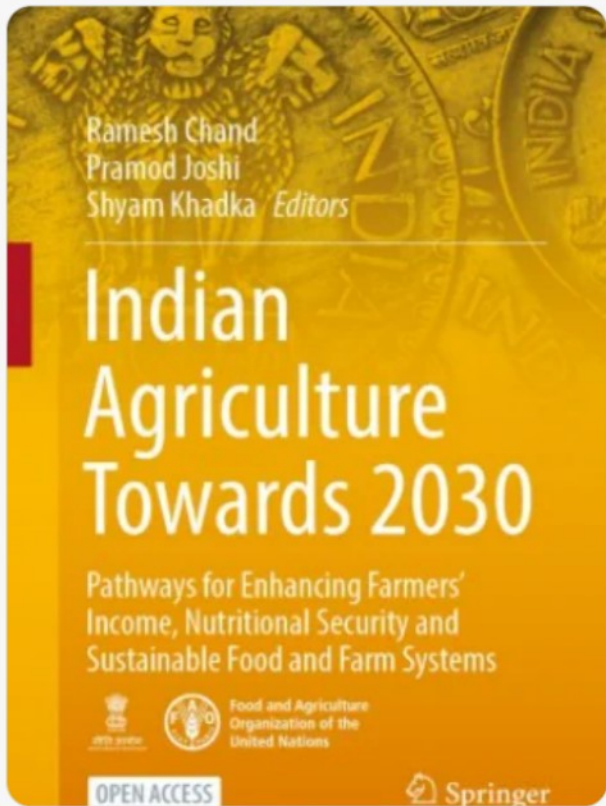
Book Publishing Charges of a Foreign Publisher

Source: <https://www.springernature.com/gp/open-research/journals-books/books/pricing>

Type	€ EUR	\$ USD	£ GBP
Monographs and edited collections (up to 400 pages)	13,000	15,000	11,000
Proceedings (up to 400 pages)	11,050	12,750	9,350
Springer Briefs and Palgrave Pivots (mid-length format)	7,000	8,000	6,000
Chapters in non-open access books (up to 40 pages)	2,170	2,750	1,870



Nupoor Singh @nupoorspringer · Mar 29, 2022
 Proud to be associated with this #openaccess book #Indian Agriculture Towards 2030.
 Read it on SpringerLink at bit.ly/3DgNGnr
 @Springernomics #India #agriculture #SDGs #food #Farming



NITI Aayog @NITIAayog · Mar 28, 2022
 #NITIAayog and @FAO will launch a book titled Indian Agriculture Towards 2030: Pathways for Enhancing Farmers' Income, Nutritional Security and Sustainable Food and Farm Systems.

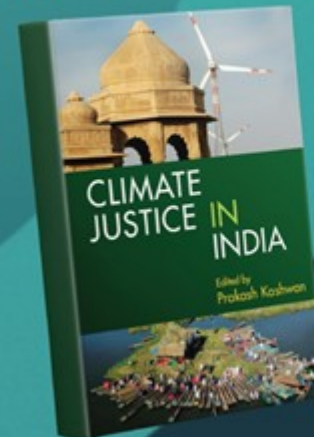


Dr Sushma Jansari @SushmaJansari · Jun 1
 Sooo happy today!! My 1st book was published!! #Chandragupta Maurya: The creation of a national hero in India @UCLpress!! ⚡ It charts his journey from unknown ruler to hero through the colonial period & into 21st century!
 Best part?! It's #OpenAccess so d/l it for FREE ⭐



29 42 288 30.8K

CAMBRIDGE UNIVERSITY PRESS



Our First Open Access Book From India

Global Mapping of OA Movements

GOAP

Google Translated to: Hindi Show original Options

GOAP Global Open Access Portal Beta version

Home GOAP GOAP के बारे में दुनिया भर में ओप... डोमेन-आधारित O... गैर-व्यावसायिक O... OA पर OER समाचार और विशे... अंगोता परियोजना ...

पॉलिसी एक्सप्लोर...

ग्लोबल ओपन एक्सेस पोर्टल

ग्लोबल ओपन एक्सेस पोर्टल (जीओएपी) दुनिया भर में ओपन एक्सेस संसाधनों की एक विस्तृत श्रृंखला तक निर्बाध पहुंच प्रदान करता है। पिछले पहलुओं पर आधारित, GOAP वर्तमान में सार्वजनिक रूप से उपलब्ध जानकारी से प्राप्त गतिशील सामग्री को शामिल करता है। GOAP में दुनिया भर के देशों में प्रमुख OA पहलों, शासनादेशों, घटनाओं और प्रकाशनों को उजागर करने वाले देश-वार ओपन एक्सेस प्रोफाइल शामिल हैं। इसके अतिरिक्त GOAP गैर-व्यावसायिक पत्रिकाओं को प्रकाशित करने की सुविधा के लिए वर्कप्रलो प्रदान करता है। GOAP कोविड-19, बिग डेटा और आर्टिफिशियल इंटेलिजेंस जैसे ट्रेंडिंग डोमेन के लिए ओपन जर्नल्स, रिपॉजिटरी, लेख और एफएक्यू जैसे महत्वपूर्ण संसाधनों का संग्रह करता है। प्रस्तुत एक अन्य महत्वपूर्ण विशेषता ओपन एक्सेस पर ओईआर है जो एलएमएस वातावरण में ओए पर ओपन एक्सेस शिक्षण संसाधन प्रदान करता है।

GOAP 2.0 यूनेस्को, रेडैलिक, भारतीय सांख्यिकी संस्थान और अमेरिका का एक सहयोगात्मक प्रयास है और इसे एक बहु-हितधारक सलाहकार समिति के मार्गदर्शन में पुनर्विकास किया गया था।

The Global Open Access Portal (GOAP.info) presents seamless access to a wide array of open access resources worldwide. Building on the past aspects, GOAP presently incorporates dynamic content sourced from publicly available information. GOAP includes country-wise Open Access profiles highlighting the key OA initiatives, mandates, events and publications in countries worldwide.

Asia and the Pacific



Introduction

India has seen rapid and drastic growth in digitized and born digital data. Major part of the information produced may be attributed to government research establishments such as CSIR (Council of Scientific and Industrial Research) laboratories, institutes of higher learning mostly universities, both central and state level universities and reputed institutes such as IITs (Indian Institute of Technology), IIMs (Indian Institute of Management). R&D organizations such as Regional Research Labs, Industrial R&D divisions also contribute to scientific data.

As of March 2021, DOAJ indexes 301 OA journals which are published in India. 98 OA digital repositories are registered in OpenDOAR. 18 OA policies are registered in ROARMAP which are at the institutional and funder levels.

In December 2014, India's Ministry of Science and Technology, the Department of Biotechnology (DBT) and the Department of Science and Technology (DST) released a new Open Access Policy. Under the new OA policy, researchers who receive or have received funding since 2012 or use resources from these departments are mandated to deposit, within two weeks after acceptance by a journal, copies of the final papers and supporting data in institutional repositories where the information can be accessed by the public. This is a big step for the promotion of open access scholarly communications in India as DBT and DST

<https://goap.info/oa/access-by-region/country/india>



Global Open Access Portal

UNESCO » Communication and Information » GOAP » Access by Region » Asia and the Pacific



GOAP

Access by Region

- ▶ Africa
- ▶ Arab States
- ▶ **Asia and the Pacific**
- ▶ Europe and North America
- ▶ Latin America and the Caribbean

Funding Mandates

Key Organizations

Thematic Areas

Open Access Community

Open Science Movement

Contributors and Disclaimer

Asia and the Pacific

Overview:

Open Access in Asia and the Pacific started in the form of subject gateways, informal collections of articles on web pages and directories. Subsequently the region witnessed the transition to Open Access journals and full text repositories and digital libraries. Research departments, institutions & universities and coordinating bodies of higher learning are the major contributors to Open Access though some dedicated OA publishers have also contributed. The region as a whole has seen rapid industrial advance with governments investing significantly in R&D. Such investment has shown a direct bearing on scientific productivity and reporting though not directly or always in Open Access journals. For example, the Global Innovation index (GII) report, 2014 shows that the Democratic Republic of Korea holds world's first rank in terms of Gross Expenditures on Research and Innovation (GERD) in 2011; Singapore, China, Malaysia, India and Hong Kong also rank among the top 50. The potential of publishing as shown in citation index for the region can be harnessed into Open Access publishing.

Asia Pacific hosts several digital OA repositories and digital libraries. The repositories often are based upon documents types such as theses and dissertations while many others are domain specific such as the AGRIS service in the Agricultural Domain. However, some countries have shown constant progress, some in spurts of activities and some others are yet to begin with repositories as is shown in the country-wise reports in Asia Pacific. The Directory of Open Access Repositories



RELATED INFORMATION

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MAJOR REGIONAL PROJECTS AND INITIATIVES

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- ▶ Asia Journals Online



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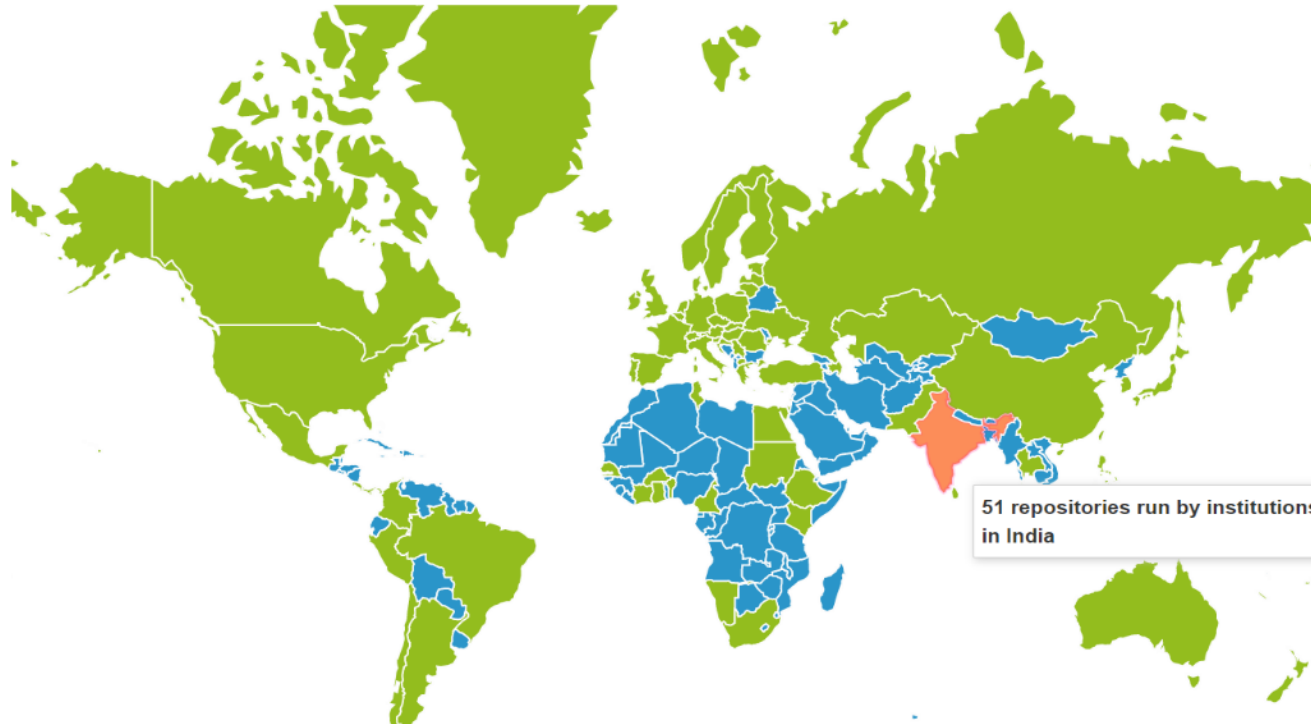
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Browse by country

Graphical

Text



- <https://www.re3data.org/browse/by-country/>
- India: 51 Data Repositories
- Brazil : 18 Data Repositories
- Russia : 23 Data Repositories
- China : 81 Data Repositories
- South Africa: 17 Data Repositories (as on 30 July 2023)

Indian National Initiatives

Open Access India

Indian Civil Society Actor for Open Science Movement

Open Access India

Advocating Open Access, Open Data and Open Education in India

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Home

Welcome to Open Access India!

The [Budapest Open Access Initiative](#) defined “Open Access” as making it freely available on the public Internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the Internet itself.

For creating awareness among the graduate students, early career researchers, professors, research managers and the policy makers on opening up of the access to the publicly funded research in India, ‘[Open Access India](#),’ a community of practice advocating [Open Access](#), [Open data](#), [Open education](#) in India has been formed initially as an online [Facebook group](#) on 8th July 2011.



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Delhi Declaration on Open Access

(Released on 14th February 2018)

The screenshot shows the homepage of the Delhi Declaration on Open Access. On the left, there is a logo for 'openindia' and text indicating the date (February 14, 2018) and the nature of the event (Advocacy, Conference, Definition, Open Access, Open Access Policy). The main content area features the title 'Delhi Declaration on Open Access' in orange, followed by a paragraph stating that the declaration was drafted by a group of researchers and professionals aiming to promote openness in science and research communications. Below this is a 'Preamble' section, which discusses the challenges in the South Asian region and the importance of open access. A quote from the 'Open Definition' is included, defining open access as 'free availability on the public internet, permitting any'. At the bottom of the main content, it mentions the Budapest Open Access Initiative (BOAI) and its definition of open access. On the right side, there is a search bar, a 'FOLLOW US' section with social media icons for Facebook, Twitter, YouTube, Google+, and LinkedIn, and a 'RECENT POSTS' section listing several articles. At the very bottom, a tweet from Open Access India is visible, mentioning a retweet by the World Economic Forum.

- Marked the 16th Anniversary of Budapest Open Access Initiative (BOAI)
- 120+ Signatories from the Global South
- Supported by the Knowledge Societies Division of UNESCO; IFLA RSCAO; Forum for Open Access in SAARC, etc.
- Online: <http://openaccessindia.org/delhi-declaration-on-open-access/>

Science, Technology, and Innovation Policy 2020 (STIP2020) (Draft)

Draft STIP Doc 1.4 Dec 2020

III. Chapters

Chapter 1: Open Science

- 1.1 National STI Observatory
- 1.2 Indian Science and Technology Archive of Research
- 1.3 Open Data
- 1.4 Open Access
- 1.5 One Nation, One Subscription
- 1.6 Indian Journals
- 1.7 Research Facilities
- 1.8 Open Educational Resources
- 1.9 Libraries
- 1.10 Learning Spaces

Priority Issues

To promote open science, the public will have the right to access all outputs from research funded by the central government or the state governments, either directly or through funding agencies, or institutions supported by the central government or the state governments (hereinafter referred to as “publicly funded research”). The right to access will include, but not be limited to, scholarly publications, research data¹ and resources such as research infrastructures², instruments, computing facilities, libraries, learning spaces, etc.

STIP2020

- **Priority Issues:** To promote open science, the public will have the right to access all outputs from research funded by the central government or the state governments, either directly or through funding agencies, or institutions supported by the central government or the state governments (hereinafter referred to as “publicly funded research”).
- The right to access will include, but not be limited to, scholarly publications, research data and resources such as research infrastructures, instruments, computing facilities, libraries, learning spaces, etc.
- Open Science Framework will be built to provide access to scientific data, information, knowledge, and resources to everyone in the country and all who are engaging with the Indian STI ecosystem on an equal partnership basis.

Advocacy for Open Science: Some Recent Success Stories

- Now proposed (in STIP2020)
- ***National STI Observatory***, as a central repository for all kinds of data related to and generated from the STI ecosystem will be established
- ***Indian Science and Technology Archive of Research (INDSTA)***, will be developed to provide access, specifically, to the outputs of all publicly-funded research (including manuscripts, research data, supplementary information, research protocols, review articles, conference proceedings, monographs, book chapters, etc.).
- Libraries: ***Libraries at public-funded institutions*** will be accessible to the public, subject only to reasonable security protocols. The public library system will be expanded to all districts with the help of technological interventions.

<http://shodhganga.inflibnet.ac.in>

Aligarh Muslim University

9588

Andhra University

9185

Punjab University

8832

V. B. S. Purvanchal University

8720

475280

FULL TEXT THESES

12112

SYNOPSIS/MRPs/PDFs/Fellowships

726

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828

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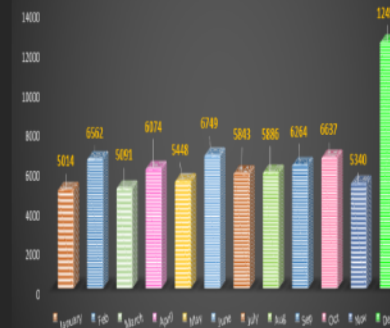
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Total Theses Submitted in the Year 2022
(Jan-Dec) = 77,358



Shodh
ganga
a reservoir of Indian theses

The Shodhganga@INFLIBNET Centre provides a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. The repository has the ability to capture, index, store, disseminate and preserve ETDs submitted by the researchers. [\[Read I\]](#)

In 2011, **Shodhganga: A Reservoir of Indian Theses** was launched by INFLIBNET Centre, to serve the mandates of the UGC Notification (Minimum Standards & Procedure for Award of MPhil/PhD Degree, Regulation, 2009) dated 1 June 2009, to facilitate open access to Indian theses and dissertations for global dissemination.

UNESCO Open Access (OA) Curriculum for Researchers | Library Schools



- In March 2015, UNESCO and CEMCA (Commonwealth of Learning) jointly launched an *Open Access Curriculum for Researchers*, and an *Open Access Curriculum for Library Schools*.
- 9 modules are freely available and downloadable online.

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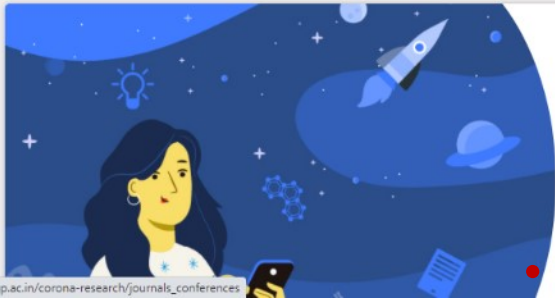
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Educational materials available for all subject areas like Technology, Social Science, Literature, Law, Medical, etc.

National Digital Library of India

- <https://ndl.iitkgp.ac.in>
- Integrates contents from different Indian OA repositories | A kind of Metadata Harvesting Service
- 100+ Million items are indexed/ hosted (as on 30-03-2023)

The screenshot displays the NPTEL website interface. On the left, there are three filter sections: 'List By Discipline' with options like Aerospace Engineering, Agriculture, Architecture, Atmospheric Science, Automobile Engineering, and Basic courses; 'List By content type' with Video Course and Web Course; and 'List By Institutions' with IISc Bangalore, IIT Bombay, IIT Delhi, IIT Guwahati, IIT Kanpur, and IIT Kharagpur. Below these is a 'Search by Keyword' section with a search box containing 'ex: Course Introduction' and a 'GO' button. At the bottom left is a 'Search within Video' section. The main area is titled 'Results' and shows a grid of video thumbnails. Each thumbnail includes a 'VIDEO' label, a 'New' badge, a course title, and links for 'Syllabus' and 'Course Content'. The thumbnails are: 1. NOC: Non-Conventional Energy Resources; 2. NOC: Experimental Stress Analysis: An Overview; 3. NOC: Semiconductor Optoelectronics; 4. NOC: Nuclear and Particle Physics; 5. NOC: Advanced Condensed Matter Physics; 6. NOC: Integrated Circuits, MOSFETs, Op-Amps and their Applications; 7. NOC: Probability Foundations for Electrical Engineers; 8. NOC: Electronics Enclosures Thermal Issues; 9. NOC: Mathematical Methods and Techniques in Signal Processing. A navigation bar at the top of the results section shows 'Prev 1 2 3 4 5 Next'.

- NPTEL (National Programme on Technology Enhanced Learning) offers OpenCourseware and Open Educational Resources (OER) | www.nptel.ac.in
- An Initiative by seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras & Roorkee) and Indian Institute of Science (IISc) for creating course contents in engineering and science subjects.
- Accessible Worldwide, very popular in the Global South
- English Language Contents – Video Lectures and Textual Resources

Open Science Metrics

What is Google Scholar Citations?

- Google Scholar Citations lets authors set up a profile page that lists their publications and citation metrics.
- The citation metrics are updated automatically, and you can choose to have your list of publications updated automatically or update them yourself.
- You can make your profile public, so that it appears in Google Scholar results when people search for your name.

Why create a Google Scholar Citations author profile?

Set up a Google Scholar Citations profile to make it easier for yourself and others to quickly:

- Find your publications,
- Keep track of citations to your publications,
- Check who has cited your publications,
- Graph citations over time, and compute several citation metrics.

How to create your Google Scholar Citations Author Profile

You can sign up for a Google Scholar Citations profile:

- Sign in to your Google account, or create one if you do not have one.
- Go to **Google Scholar** and click on the My profile link.
- Follow the prompts to set up your profile:
 - Enter your university email address in the Email for verification field.
- Add your publications.
- Select the Article updates setting: Email me updates for review (otherwise Google Scholar may automatically add incorrect publications to your profile).
- Review and complete your profile: for example, upload a photo and double check the list of articles.
- Ensure you make your profile public if you want other people to be able to view it.
- Visit your email inbox and click on the verification link.

Sample GS Profile



Biswanath Dutta

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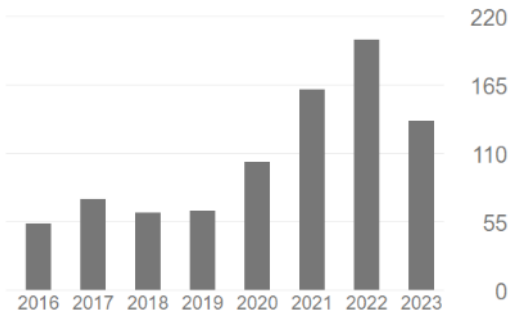
Associate Professor, [Indian Statistical Institute Bangalore](#)
Verified email at drtc.isibang.ac.in - [Homepage](#)

[Ontology](#) [Metadata](#) [Semantic Web](#) [Knowledge Graph](#) [Data Science](#)

TITLE	CITED BY	YEAR
GeoWordNet: a resource for geo-spatial applications F Giunchiglia, V Maltese, F Farazi, B Dutta The Semantic Web: Research and Applications: 7th Extended Semantic Web ...	99	2010
Faceted Lightweight Ontologies F Giunchiglia, B Dutta, V Maltese Springer-Verlag, Berlin, Heidelberg	93	2009
From knowledge organization to knowledge representation F Giunchiglia, B Dutta, V Maltese KO KNOWLEDGE ORGANIZATION 41 (1), 44-56	82	2014
Domains and context: first steps towards managing diversity in knowledge F Giunchiglia, V Maltese, B Dutta	73	2011
CODO: An Ontology for Collection and Analysis of Covid-19 Data B Dutta, M DeBellis In Proceedings of the 12th International Joint Conference on Knowledge ...	71	2020
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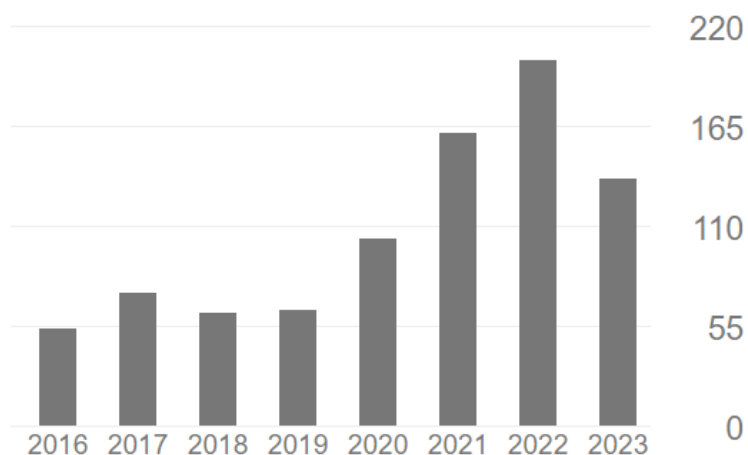
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not available	available

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h-index: The h-index is an author-level metric that measures both the productivity and citation impact of the publications, initially used for an individual scientist or scholar.

i10-index: developed by Google Scholar, the author i10-index is the number of articles published by an author that have received at least 10 citations.

Co-authors



Fausto Giunchiglia
Professor of Computer Science, ...



Animesh Dutta
National Institute of Technology ...



Feroz Farazi
Research Associate, University o...



Abed Alhakim Freihat
University of Trento



Clement Jonquet
Senior Researcher – INRAE (MI...



Sangeeta Sen
Phd student, National Institute of...



Anne Toulet
CIRAD (French Agricultural Rese...



Vincent Emonet
Data science developer, Institute...



Gautam Kishore Shahi
University of Duisburg-Essen, G...



Debashis Naskar
Phd Student of Computer Science



Frans Coenen
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Open Data Resources for Clean Energy and Water Sectors in India.

DJ Francis, AK Das

DESIDOC Journal of Library & Information Technology 39 (6), 2019

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REVIEW

Mandates: Department of Science & Technology, India

Open Access to Scientific Knowledge: Policy Perspectives and National Initiatives

AK Das

CSIR-NISTADS (ed): India - Science and Technology 3, 292-299, 2014

[\[PDF\] rclis.org](#)

REVIEW

Mandates: Council of Scientific and Industrial Research, India

Water-Related Technology Research in India: Insights from Four Core Journals.

DJ Francis, AK Das

J. Sci. Res. 8 (1), 38-46, 2019

[\[PDF\] academia.edu](#)

REVIEW

Mandates: Department of Science & Technology, India

A selective review of bibliometric studies on Indian physics and astronomy research output

AK Das, G Das, B Dutta

[\[PDF\] niscpr.res.in](#)

REVIEW



Rankings for Scientist
University, Subject,
Country, Region, World

World Scientist and University Rankings 2024

Indian Statistical Institute Bangalore

Biswanath Dutta

In Indian Statistical Institute Bangalore (40) **In India (79605)** **In Asia (404811)** **World (1353750)**



	Scores	Rankings			
Total H	19	#4	#12532	#85930	#454650
Last 6 year H	16	#2	#11927	#85268	#417883
Last 6 year H / total H	0.842				
Total i10	30	#4	#12541	#82929	#422800
Last 6 years i10	24	#2	#11587	#80470	#386250
Last 6 years i10 / Total i10	0.800				
Total Citation	1212	#4	#14862	#101275	#547633
Last 6 years Citation	734	#2	#15692	#108348	#537210
Last 6 years Citation / Total Citation	0.606				
Others * Edit Form					

**Citation Metrics of an Author
based on GSC data**

Ontology | Metadata | Semantic
Web | Knowledge Graph | Data
Science |

www.adscientificindex.com

Date : 21.09.2023

* Source and Methodology: <https://www.adscientificindex.com/scientist.php?id=336601>



- IRINS is web-based Research Information Management (RIM) service provided by the INFLIBNET Centre

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Faculty / Scientist
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Associate Professor	118
Assistant Professor	202
Librarian	1

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5090 Closed Access 908 Gold OA 603 Green OA 412 Bronze OA

Journal Articles **8033**

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Books / Chapters

Resources Impact

Impact

173220 Citations

133892 Citations

Departments

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Atal Bihari Vajpayee School of Management and Entrepreneurship	(8)
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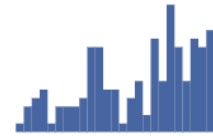
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 Professor
 Jawaharlal Nehru University

Publications 1994 - 2022



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122

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15

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11

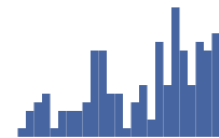
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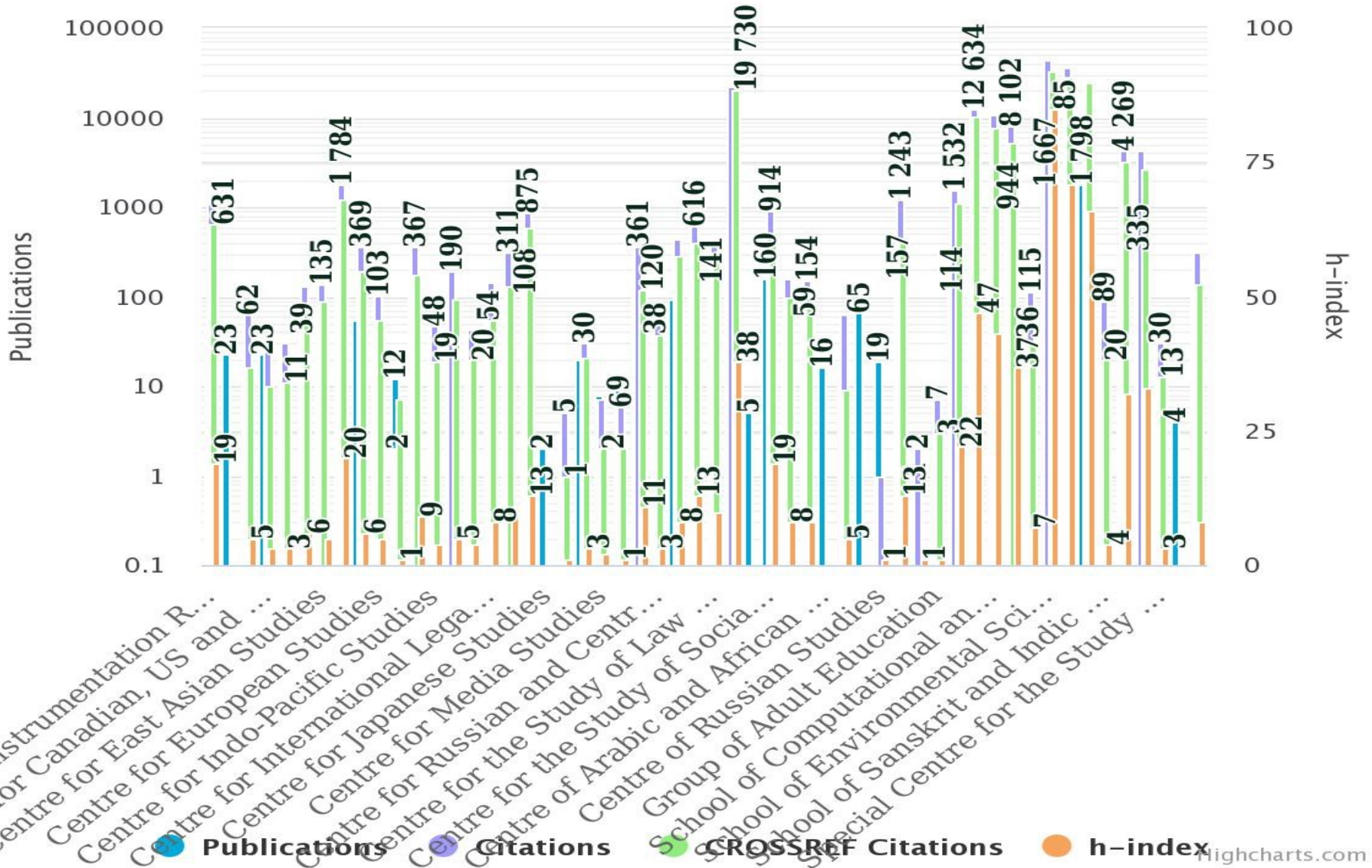
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Some Organisation

IRINS Profile of a University's Departments

h-index



Further Readings

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- Das, AK (2008). *Open Access to Knowledge and Information: Scholarly Literature and Digital Library Initiatives - the South Asian Scenario*. New Delhi: UNESCO, ISBN 9788189218218.
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- Das, AK (2018). Delhi Declaration on Open Access 2018: An Overview. *Annals of Library and Information Studies*, 65(1): 83-84.

An open book with its pages fanned out, set against a bright yellow-green background. The book is positioned centrally, with the pages creating a fan-like shape. The text is overlaid on the book's pages.

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