

Journal Policies on Data Availability

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Hong Kong Principles

The Hong Kong Principles focus on the need to drive research improvement by ensuring researchers are recognized and rewarded for behaviors that strengthen research integrity

The 5 principles include:

1. Assess responsible research practices
2. Value complete reporting
3. **Reward the practice of open science**
4. Acknowledge a broad range of research activities
5. Recognise essential other tasks like peer review and mentoring

Source: <https://www.wcrif.org/guidance/hong-kong-principles>

Open Science

AKA Open Research or Open Scholarship

“Movement to make scientific research and data accessible to all”

Includes practices such as:

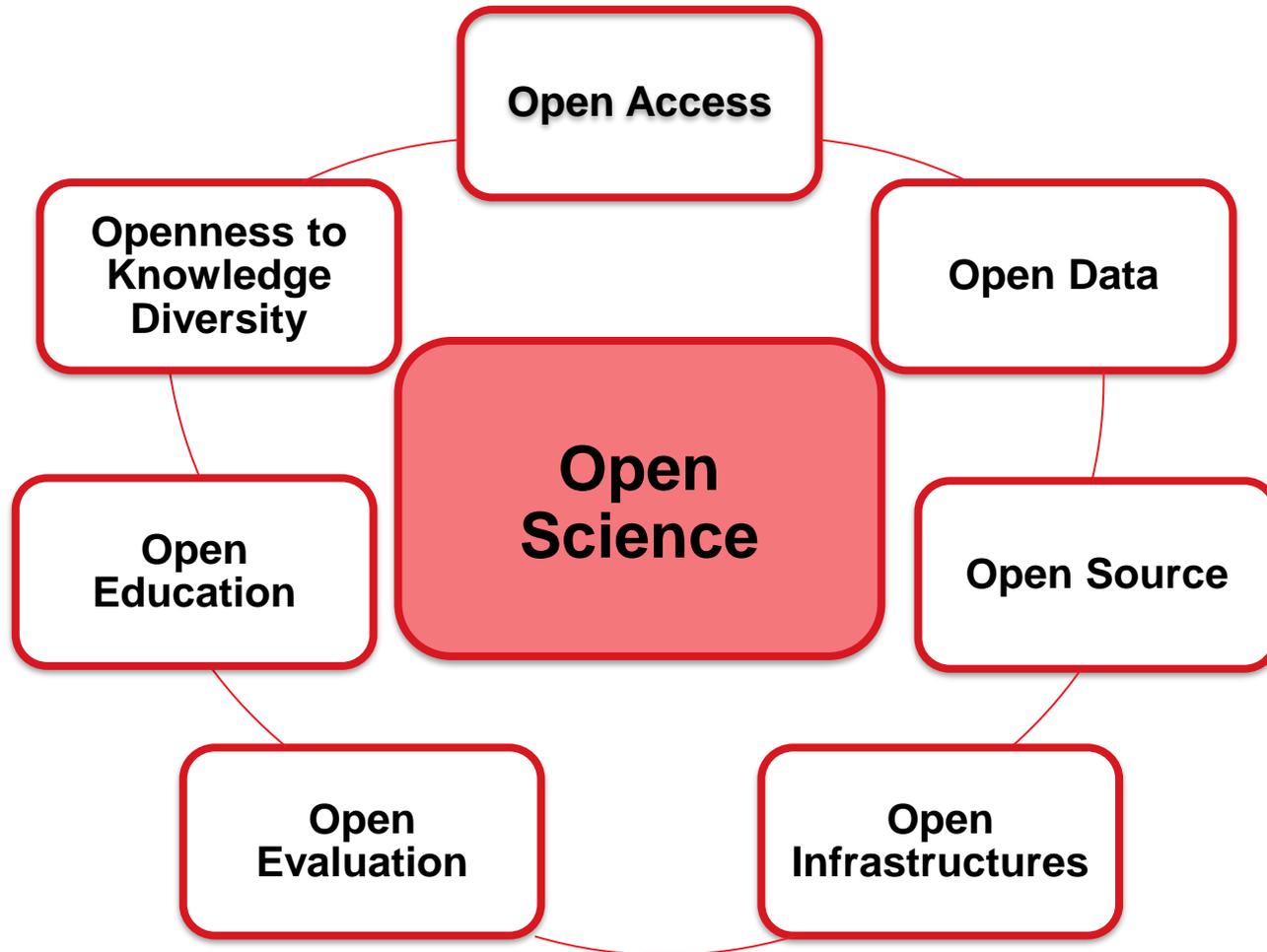
- Publishing open scientific research
- Campaigning for open access
- Making it easier to publish and communicate scientific knowledge

Improving transparency & accessibility of research:

- Open notebook science
- Citizen science
- Open source software
- Crowdfunded research projects

Source: <http://www.unesco.org/new/en/communication-and-information/portals-and-platforms/goap/open-science-movement/>

Open Science



Open Data

Data that support the results and conclusions of the published article and which could enable the results to be replicated or reproduced

- **May include:**
 - Raw data
 - Processed data
 - Code
 - Media files (e.g., images, maps, video, and audio)
 - Other data types
- Articles in either OA or subscription journals can have associated Open Data

Source: <https://cdnsiencepub.com/about/policies/principles-and-policy-on-data-availability>

Open By Default?

“Data should be as open as possible and as closed as necessary”

Examples of sensitive data:

- Personal data
- Confidential data
- Location of sacred indigenous lands or of endangered species

Source: https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Source: <https://www.openaire.eu/sensitive-data-guide>

Why Journals Should Care about Open Data

Serving the Community, journals are part of the research continuum

Open data:

- Speeds up research process
- Enables inaccuracies to be detected; replicability tests
- Facilitates interdisciplinary approach to world challenges

Source: <https://www.frontiersin.org/articles/10.3389/fdata.2019.00043/full>

Serving our Authors:

- Increases research impact
- Alignment between journals and funder/university mandates

Journal Policies on Open Data

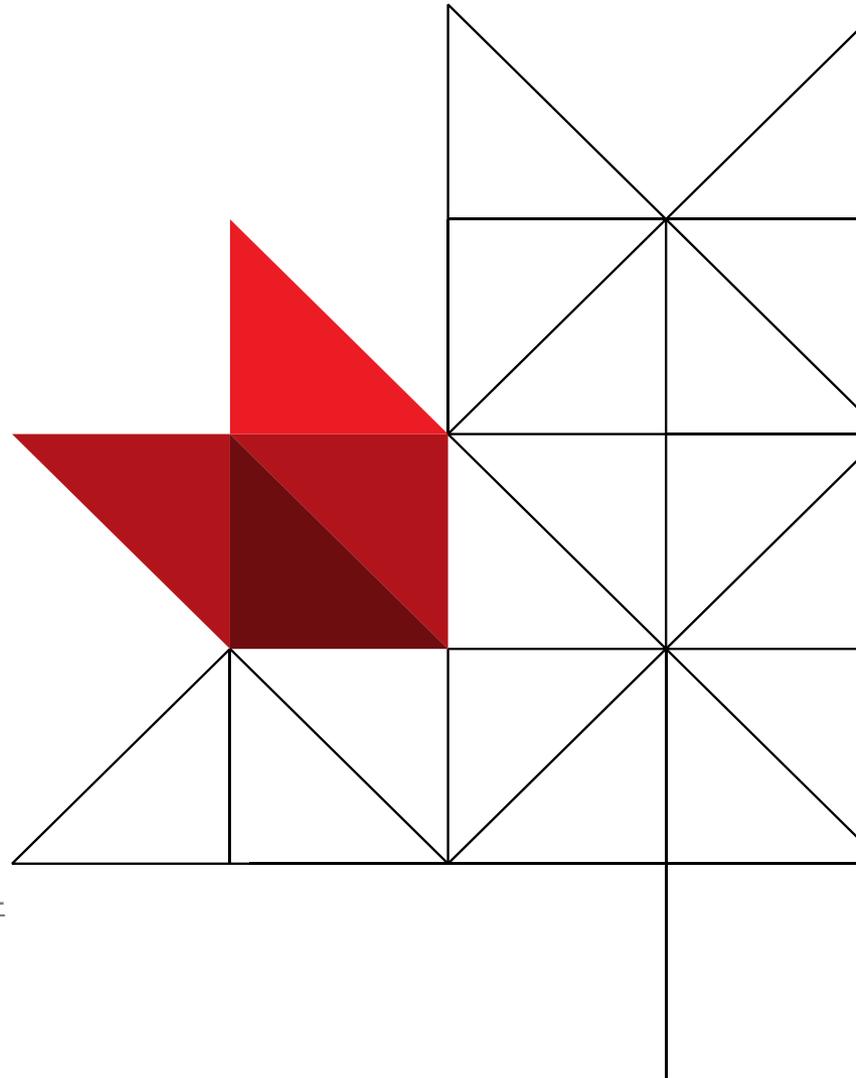
Four categories of Open Data policies:

1. Encourage Data Sharing
2. Mandate Data Sharing
3. Mandate Data Sharing and Conduct Peer Review of Data
4. No specific policy

Considerations when adopting a policy:

- What are the expectations, conventions, and best practices of the research field?
- Are your authors ready for a new mandate?

CSP and Open Data



Source: <https://cdnsiencepub.com/about/policies/principles-and-policy-on-data-availability>

CSP's Goal

To help research data be available and accessible for readers, researchers, policy-makers, and the general public

Alignment with CSP's strategic plan:

- *Our mission:* Champions of scientific knowledge exchange
- *Our Values:* Transparency, Openness
- *Strategic Goal:* Protect and instill trust in scholarly research

Developing our Data Availability Policy

Homework:

- Met with SSHRC about their upcoming data management policy
- Researched principles behind open data
- Discussed whether policy would mandate open data or support/educate researchers

Concerns about mandating open data:

- Too abrupt switch for authors
- Not appropriate for all our journals
- Risk losing manuscript submissions

Decision:

- To encourage, educate, support open data

Adopted FAIR Principles

FINDABILITY

- Research data should be findable by both machines and humans, be supported by a unique, permanent identifier and be indexed and searchable

ACCESSIBILITY

- Research data should be openly available to both humans and machines, be preserved for the future, and be easily retrievable using a standard protocol

INTEROPERABILITY

- Research data should be in a format that is standard, accessible, shareable, flexible, and usable across multiple platforms

REPRODUCIBILITY

- Access to research data facilitates reproducibility as well as encourages quality control in research data management. Accessible data plays an essential role in encouraging responsible conduct as it relates to published and vetted research that forms the foundation of our scientific information and knowledge

INTEGRITY

- The release of research data may be constrained by privacy considerations, legal concerns, ethical issues, and commercial interests

Essence of CSP's Policy

All authors must:

- Be prepared to provide study data during peer review;
- Provide any permanent identifiers for their data
- Cite data sets/code in article
- Include a data-availability statement that indicates
 - I. Whether the data is available to others;
 - II. Where, when and on what terms the data will be available;
 - III. How the data may be accessed

In Practice

Old Practice: Publishing Supplementary Data with articles

New Policy, New Practice:

- We DO NOT manage the data for authors
- We facilitate proper data management by
 - Providing resources to authors (e.g., database of repositories)
 - Highlighting importance of community standards (e.g., for metadata)
 - Highlighting responsibility of authors to be informed of the funder or institutions requirement for data management and data availability

We facilitate accessibility by:

- Capturing data availability statements in our peer review system and publishing them as part of the article XML
- Linking from article to data via a PID (as per TOP Guidelines)

Example

OPEN ACCESS | Article



Does a carbonatite deposit influence its surrounding ecosystem?

Authors: [James M.C. Jones](#) , [Elizabeth A. Webb](#), [Michael D.J. Lynch](#), [Trevor C. Charles](#), [Pedro M. Antunes](#), and [Frédérique C. Guinel](#) | [AUTHORS INFO & AFFILIATIONS](#)

Publication: FACETS • 12 August 2019 • <https://doi.org/10.1139/facets-2018-0029>

↓ 636  1



Abstract

Carbonatites are unusual alkaline rocks with diverse compositions. Although previous work has characterized the effects these rocks have on soils and plants, little is known about their impacts on

Example cont'd

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FOR AUTHORS FOR REVIEWERS FOR

ABOUT RECENT ARTICLES

June 2019 / Does a carbonatite deposit influe...

OPEN ACCESS Article

Does a carbonatite deposit influence its surrounding ec...

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Information & Authors

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DATA AVAILABILITY STATEMENT

All relevant data are within the paper and in the Supplementary Material. Unknown species were collected and later identified using the Northern Ontario Plant Database (northernontarioflora.ca/), with pressed samples deposited at the Algoma University herbarium.

A Word on Data Repositories

Repository types:

- Institutional
- Discipline- or sub-discipline specific
 - E.g., GenBank for genetic sequences
- General repositories
 - E.g., Dryad, FigShare

Resource to find repositories relevant to your journal's field:

- <https://fairsharing.org/databases/>

Future of Open Data

- Researchers are embracing data sharing, and there are societies developing around the movement, like SORTEE (<https://www.sortee.org/>)
- We believe that open data will form an important component of the future of scholarly research and will lead to collaborative breakthroughs
- We look forward to seeing how our authors contribute to and utilize the continually growing body of open data

Other CSP Data Initiatives:

- Created a Data Science section in our multidisciplinary journal *FACETS*
- Investigating the publication of “Data Papers” (also see <https://www.nature.com/sdata/about>)

Questions???

Thank you!