



The Publication Landscape in Astronomy

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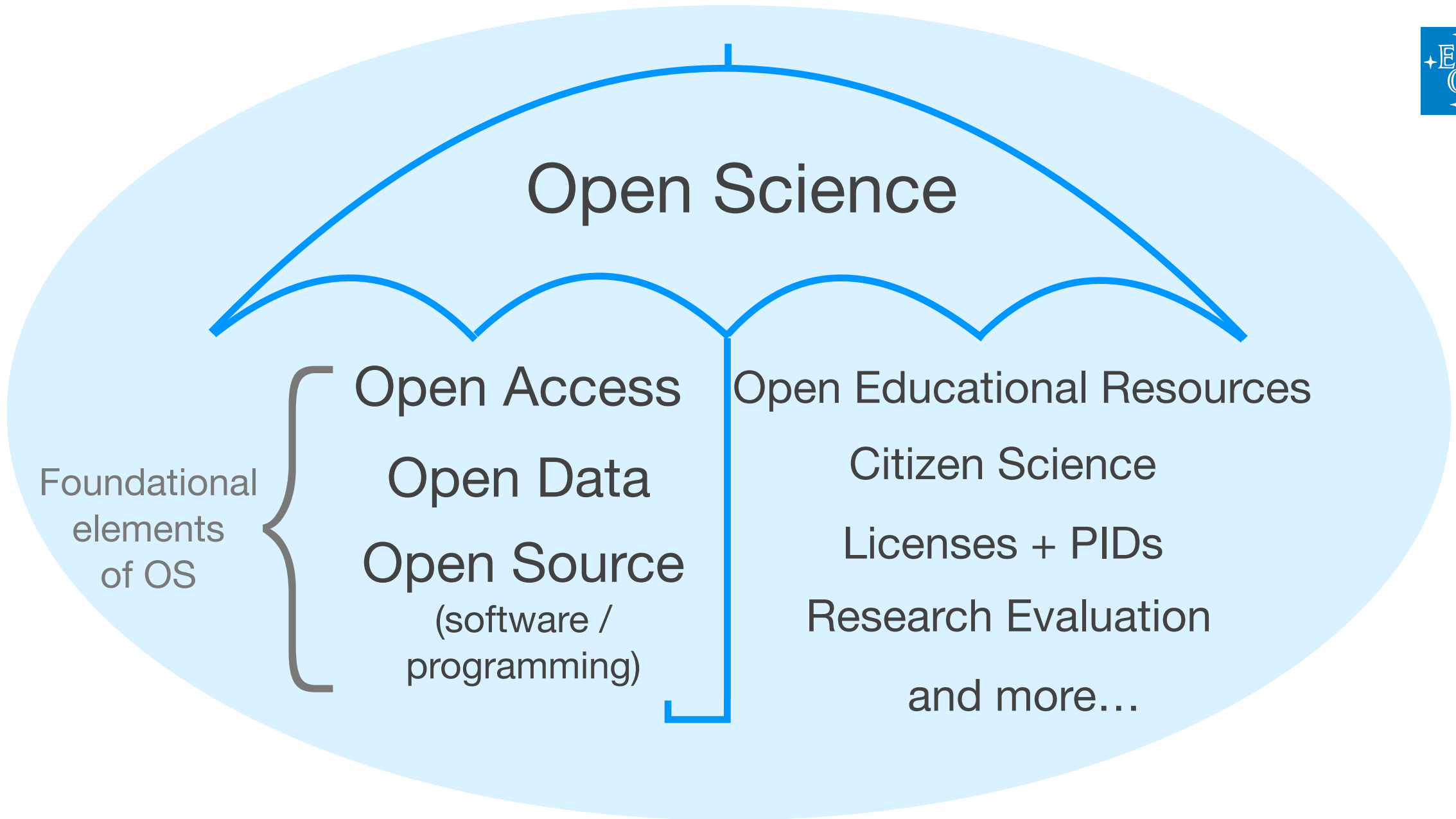
Agenda

- Open Access vs. Open Science
- Work Culture in Astronomy
- Deep-dive Open Access Publishing
 - OA in a Nutshell
 - The **Good**, the **Bad**, and the Ugly
 - Publishing Models (focus on Astronomy)
- Predatory Publishing (and how to avoid it)
- Conclusions





Open Access vs. Open Science



Open Science

Open Access

- Can refer to any kind of digital content
- Here: *Open Access Publishing*



Astronomy: a Culture of Sharing

Work Culture in Astronomy

How things started



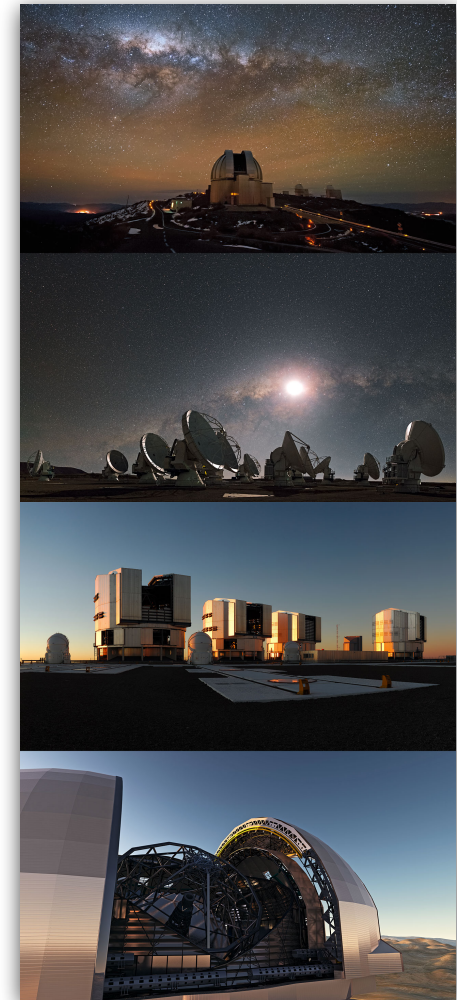
Observatories typically in **remote places**



Community (researchers and librarians) **closely connected**



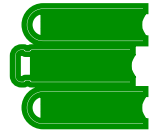
Tradition of **sharing and exchange** (of papers, data, code...)



Traditional Read-Access in Astronomy



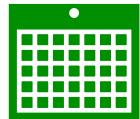
Wide-spread use of **Green OA** (arXiv/astro-ph eprint server) (typically without CC-BY license, so not full Open Access)



Core journals digitised and **freely available back to vol. 1**



Publishers provided (pre-OA) **temporary access** to selected recent articles



Free access to core journal content often **one year after publication**

Read-access to astronomy literature:



Access to literature from other sciences typically:



Core Journals in Astronomy



Four “essential” journals

- > 35% of refereed astronomy literature
- ESO 1st-author refereed papers: 90+% in core journals



Governed by **Learned Societies**, publ. by commercial publishers

- American Astronomical Society (AAS) / IOP Publishing: **ApJ/AJ**
- Royal Astronomical Society (RAS) / Oxford University Press: **MNRAS**
- Community of Member Countries’ astronomers / EDP Sciences: **A&A**



Community or researchers

- strongly influences publishing developments, but
- many astronomers don’t see need for OA beyond status-quo
- need OA solutions with **minimal researcher burden** (especially in Europe)



In the meanwhile, outside of Astronomy...

Open Access in a Nutshell



SPARC (the Scholarly Publishing and Academic Resources Coalition)

- “Open Access if the *free, immediate, online availability* of research articles coupled with the *rights to use* these articles fully in the digital environment”



1. Global read-access
(no embargoes)
2. Rights to use
(open licenses)



Unintended side effects

- From ‘readers pay’ to ‘authors pay’ (Article Processing Charges, APCs) —> **access barrier shifted**
- Large publishers offer Publish-and-Read bundles —> **new dependency** (supports large publishers, damages small ones)
- APCs enable “Predatory publishers”, paper mills: no quality control —> **erodes (public) trust in science**



Revised OA definition

Free, immediate read access

- + **rights to use**
- + **equitable publishing** (without author-facing charges or per-article prices)



3. Equitable publishing
(no author-facing charges or per-article prices)



The Good, the Bad, and the Ugly

GOOD

BAD

UGLY



GOOD

BAD

UGLY



Knowledge exchange
Cost containment

Open Access Motivation

- OA movement since the 1990s
- Large commercial publishers dominate publishing
- OA advocates promoted idea for decades

Two main motivations for OA:

- Make publicly funded research available to all —>
knowledge exchange
- Reduce ever-growing expenditure for journal subscriptions and journal packages (“Big Deals”) —>
cost containment

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

UGLY



Definition

Big conventions, leading to declarations
(Berlin, Budapest)

- Open Access is the **free, immediate, online availability** of research articles coupled with the **rights to use** these articles fully in the digital environment.
- Also: **copyright resides with authors** or their institutions, not with publishers.

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

UGLY



Important drivers

- Funders, in particular ERC (European Research Council), Plan S / cOAlition S

Benefits of OA

- More exposure for authors' work
- Higher citation rates
- All researchers as well as practitioners can see the work
- Compliant with grant funders' rules.

Example:

- 85% of COVID-19 pubs OA, while 70% of all science articles locked behind paywalls (Source: UNESCO)

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

UGLY



Unintended Side Effects (1)

- publishers changed from “**readers pay**” (subscriptions) to “**authors pay**” (article fees, APCs)
- disruptive for authors (those not known to page charges)

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

UGLY

Access barrier shifted

Extremely high APCs



Unintended Side Effects (2+3)

- in comparison with subscription model: **access barrier has simply been shifted**
- some publishers set **outrageously high APCs**

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

Waivers are patronizing

UGLY

Access barrier shifted

Extremely high APCs



Unintended Side Effects (4)

- publishers' **waiver policies are patronizing** because they require authors to ask / apply

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

UGLY

Access barrier shifted

Extremely high APCs



Unintended Side Effects (5)

- new (or increased) budgets outside of libraries
- **new infrastructure needed** for budgets and administration, e.g., distribution of available funds (first come, first serve??)

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*



Unintended Side Effects (6)

- Large publishers' deals combine costs for reading and publishing (Transformative agreements, Read & Publish agreements)
- New “Big Deals”, **new dependency on commercial publishers**

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*

Increased read / publishing costs



Unintended Side Effects (7)

- As a result, very often organizations confronted with **increased overall read/publish costs**

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*

Increased read / publishing costs

Predatory publishers,
no quality control

Unintended Side Effects (8)

“Predatory” publishers / journals:

- no proper peer review
- limitless article acceptance (authors pay)
- **lack of quality control** — the worst that can happen to science!
- bad reputation of OA



GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*

Increased read / publishing costs

Predatory publishers,
no quality control

Paper mills

Unintended Side Effects (9)

- Fake papers produced by “**paper mills**” inundate journals
- Need to be withdrawn
- Erode trust in science



Mitigating Unintended Side Effects

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

BAD

UGLY



In Response to Unintended Side Effects (1):

Revised funder guidelines, e.g.,

- no hybrid journals (subs + APCs for indiv. articles)
- reasonable APCs
- focus on fair publishing models with low or no author-facing costs.

no quality control

Paper mills

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

More equity in scholarly publishing

BAD

Disruptive for authors

New infrastructure

UGLY

Access barrier shifted

Extremely high APCs



In Response to Unintended Side Effects (2)

Publishing models w/o author-facing costs (APCs)

- Aim: more equity in scholarly publishing

Paper mills

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

More equity in scholarly publishing

Collaborative publishing models
Cost transparency

BAD

Disruptive for authors

New infrastructure
needed

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*



In Response to Unintended Side Effects (3)

Community-based scholarly communication

- Move towards collaborative scholarly publishing
- Increased cost transparency of publishing models

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

More equity in scholarly publishing

Collaborative publishing models
Cost transparency

Authors decide
Full range of research output credited

BAD

Disruptive for authors

New infrastructure
needed

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*



In Response to Unintended Side Effects (4)

Focus on authors / researchers

- Moving away from the power of journals/publishers
→ **Authors decide**, not 3rd party suppliers
- **Full range of research output** constitutes scholarly record (not only final paper)

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

More equity in scholarly publishing

Collaborative publishing models
Cost transparency

Authors decide
Full range of research output credited

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

Increased workload
for authors

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*

Increased read / publishing costs

Predatory publishers,
no quality control

Risks (1)

- Increased workload for authors — can they cope?

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright → authors

More equity in scholarly publishing

Collaborative publishing models
Cost transparency

Authors decide
Full range of research output credited

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

Increased workload
for authors

Sustainable?

UGLY

Access barrier shifted

Extremely high APCs

New dependency on large
commercial publishers, *Big Deals*

Increased read / publishing costs

Predatory publishers,
no quality control

Risks (2)

- Future has become more unpredictable – will OA models be **sustainable** in the long run?



Another Essential Factor

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

More equity in scholarly publishing

Collaborative publishing models
Cost transparency

Authors decide
Full range of research output credited

Changed research assessment

BAD

UGLY



The Larger Picture

- Publishing (and the dominance of commercial publishers) will not change unless also **research assessment is changed**
- Journal Impact Factor (JIF) often wrongly used to evaluate researchers and institutions — it is only for journals!
- Initiatives like DORA and CoARA aim at recognizing the diversity of contributions to research
- Aim: research assessment based primarily on **qualitative, not quantitative, indicators**
- Long overdue in some subject areas

GOOD

Knowledge exchange
Cost containment

Free, immediate online availability
Usage rights (licenses)
Copyright —> authors

More equity in scholarly publishing

Collaborative publishing models
Cost transparency

Authors decide
Full range of research output credited

Changed research assessment

BAD

Disruptive for authors

Waivers are patronizing

New infrastructure
needed

Increased workload
for authors

Sustainable?

UGLY

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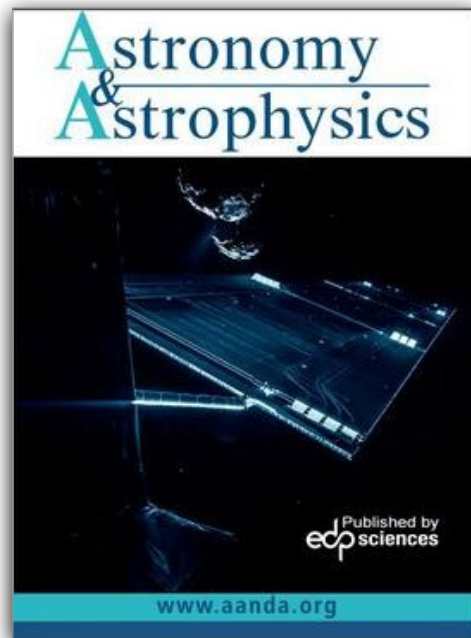




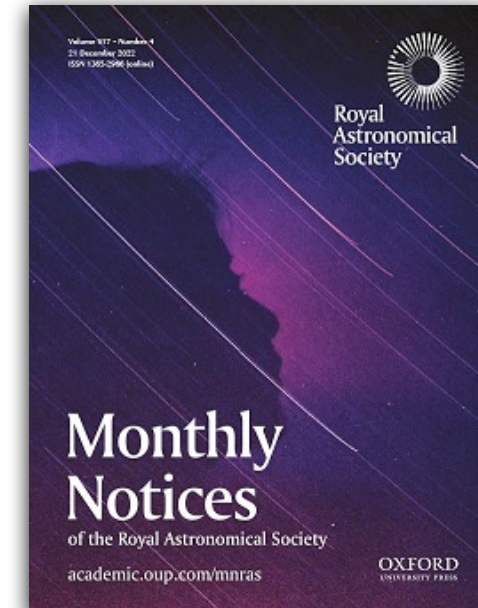
Open Access Publishing Models: Focus on Astronomy

Core Journals in Astronomy

Different OA models



OA as of 2022



OA as of 2024

“Classical” OA Models

(aka The Easy Way Out for Publishers)

APCs (Article Processing Charges)

Concept overview

- APC-based (“Gold”) OA currently the dominant model, applied by many publishers
- APCs charged to authors for publishing
- From “*readers pay*” (subscriptions) to “*authors pay*” (publishing fees)
- No subscriptions (otherwise: “hybrid journals” —> double-dipping!)
- Unintended side-effects:
 - Rise of “predatory publishers” w/o quality control
 - Bad reputation of OA

Costs

- Depend on journal (up to ~EUR 10,000 per article)
- Typically vastly increased costs for research performing organisations (many papers!)

Librarian’s View

- **Access barrier** shifted from reading to publishing
 - APC-based OA **not equitable**
 - APC waivers: well-intended, but still **patronising**
- **Disruptive for authors** who are not used to payments
- Planning a publishing budget has become difficult (impossible?)
- Requires **new institutional infrastructure**:
 - budget for publication costs (where? Admin? Library??)
 - **policies** how to spend (*first come, first serve??*)

Astrophysical Journal, Astronomical Journal



APC-based OA model as of 2022

APCs to be paid by authors

APC prices depend on journal and article length; EUR 1,100 - 4,300

- Calculated based on “digital quanta” units of digital info
- Surcharge for long articles (€ 230 / € 420)

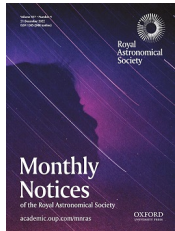


Waiver policy (“Publication Support”): <https://journals.aas.org/waivers/>

ApJ/AJ-author community mostly used to author-facing payments, but **increased costs** for authors in comparison with previous model (page charges)



Monthly Notices of the Royal Astronomical Society



APC-based OA model as of 2024

- previously: subscription [subscription ESO *MNRAS*: € 10,300]



APCs for *MNRAS* / Letters EUR 2,600

- Discount for RAS members
- “**Read and Publish**” agreements with hundreds of institutions and consortia worldwide; publishing costs covered for affiliated author

Waiver policy via <https://academic.oup.com/mnras/pages/mnras-open-access>



Newly introduced costs for authors (previously: subscriptions)

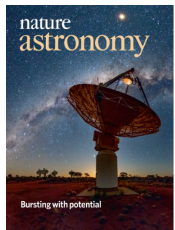


Nature, Nature Astronomy



APC-based OA model

OA in addition to subscription model (“hybrid”)



APCs extremely high: EUR 10,000+ per article

Publisher “squeezes” the scholarly publishing system due to their market power



Large reputation results from **high Journal Impact Factor**
(which in *Open Science* loses its importance!)



Green OA (manuscripts deposited by authors, e.g., on arXiv)
only **after embargo period** (typically 6 months)



Read-and-Publish (RAP) Agreements

Concept overview

- High-level agreements between research organisations / countries + publishers
- Various names: Read-and-Publish (RAP), Publish-and-Read (PAR), Transformative Agreements (TA)
- Typically provide access to publisher's open and closed content + (some) OA publishing

Costs

- Complex cost calculation: Subscription + #papers (APCs)
- Number of OA articles typically capped! High costs for additional papers
- Often **higher costs** than before (!)

Librarian's View

- New **dependency** on for-profit publishers ("Big Deal")
- "Transforming" to which model? RAP Agreements "cement" **APC-based** (= price per article) OA model
- How about small, specialised libraries without need for access to entire publisher portfolio?

Examples of Read-and-Publish Agreements



Used by many publishers, e.g., Elsevier, Oxford Univ. Pr., Cambridge Univ. Pr.
Often in parallel with other models, e.g., Springer-Nature, EDP Sciences



APC-based OA model in disguise: each article has a “price tag”



Minimum requirements for more equitable use:

- transparent and reasonable publishing costs
- unlimited OA publishing —————>
- consider situation of specialised organisations



Alternative Models

(trying to make OA more fair and transparent)

Collaborative Model (1): Subscribe to Open (S2O)

Concept overview

- Continued library subscriptions to achieve global Open Access
- Participating libraries have previously shown interest in content
- “Free riders” problem: OA achieved only if all subscribers participate (**Conditional OA**)
- Several flavours of S2O, general agreement: no APCs



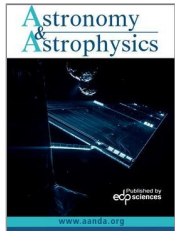
Costs

- As before (subscription)
- Possible discounts (e.g., “Early Bird Renewals”)
- Decreasing fees if additional subscribers participate

Librarian’s View

- Uses **existing infrastructure** (budget handling), can be **implemented fast**
- Is **predictable** and **equitable**
- Reflects **specific information needs** of specialised research community
- Workflow unchanged, yet OA achieved —> **high acceptance expected**

Astronomy and Astrophysics



Collaborative OA model as of 2022

- Librarians, publishers, research community work together



Slightly modified **Subscribe to Open (S2O)** approach

- Continue with **library subscriptions** to achieve **global read-access**
- **A&A Member Countries' contributions** cover editorial costs for MC authors
- **Moderate page charges** for non-MC authors (as before OA)
€ 150 / page; € 100 if 1st authors from subscribing institutions
- Waiver policy
- As of April 2025: surcharge for >20 (Letters: 9) pages; costs not directly OA-related



In practice no change for authors —>

Global read access + usage rights achieved



Collaborative Model (2): SCOAP³

Concept overview

- SCOAP³ = **S**ponsoring **C**onsortium for **O**pen **A**ccess **P**ublishing in **P**article **P**hysics
- International collaboration in High-Energy Physics to convert traditional journals to OA
- Centrally negotiated and administered by CERN. 3,000+ libraries, funding agencies, research centres; 44 countries, regions, territories; 3 intergov. orgs.
- SCOAP³ involves (commercial) publishers
- So far, 4 journals fully converted + HEP articles in 11 further journals



Costs

- Contributions commensurate with share in worldwide scientific output in HEP
- Calculated based on a formula that takes into account number of articles by participating institution and overall publishing costs
- Aims to distribute costs of OA equitably among participants

Librarian's View

- SCOAP³ is a **world-renowned**, successful initiative
- Involves complex calculation to identify contributions
- Requires
 - **high-level institutional support** (legal aspects!)
 - **long-term determination**, and
 - **a centrally leading organisation with sufficient knowledge, staff, and resources**

Community-driven OA (1): Overlay Journals

Concept overview

- APC-based OA, but low or no publishing costs
- Existing eprint infrastructure (e.g., arXiv) plus refereeing system
- Initiatives run by volunteers (researchers), based on grants (e.g., from foundations)

Costs

- Low, if any (few or no in-house services)

Librarian's View

- Long-term sustainability?
- Danger of losing publishers' expertise
- Unknown titles lack recognition
- Requires shift in research evaluation towards Open Science

Open Journal of Astrophysics (OJAp)



Overlay journal:

- arXiv / astro-ph eprint infrastructure plus refereeing system
- <https://astro.theoj.org>



Still **APC-based (Gold)**, but low or no publishing costs

Initiative run by (few) volunteers (researchers) and distributed reviewers

- Sustainable in the long run? Do we lose publishers' expertise?
- Unknown journals lack recognition —>
Requires shift in research evaluation towards Open Science



Community-driven OA (2): SciELO

Concept overview

- SciELO = **Scientific Electronic Library Online**
- Scope: Recognition, promotion, and enhancement of journals published by universities, scientific societies, and professional associations
- National collections of quality journals, plus thematic (public health), preprint, research data, and book collections
- 16 member countries mostly from South America
- Applying “Diamond” OA model (no reader nor authors costs) with CC-BY licenses
- *“Scientific knowledge as a global public good”*

Costs

- Financed mostly through government support, institutional contributions, and grants or partnerships.
- Diverse funding models help to ensure sustainability.

Librarian’s View

- Excellent concept that **shows high-level support** for quality OA platforms
- **Inclusive** re. non-English languages
- Who is in charge of publishing process? Danger of **losing publishers’ expertise**
- Unknown titles **lack recognition** in Global North
- Requires **shift in research evaluation** towards Open Science

Community-driven OA (3): ORE

Concept overview

- ORE = **Open Research Europe**
<https://open-research-europe.ec.europa.eu/>
- Scope: Provide a high-quality publishing service for **EU-funded research** that meets general and discipline-specific standards. No author-facing publishing fees.
- Open post-publication peer-review, assessing *“the quality and validity of the research, not the novelty or perceived interest. ORE also welcomes null and negative studies, and they will not be reviewed any differently.”*
- Indexed in Google Scholar, Scopus, Inspec
- Promoting Responsible Research Assessment (e.g., DORA Declaration)



Costs

- Funding primarily from the European Commission as part of EU's broader efforts to promote Open Science
- In future support from institutional contributions and partnerships?

Librarian's View

- Great publishing platform for EC-funded research **w/o author-facing costs**
- Visibility and impact might increase through **strategic partnerships** beyond EC-funded authors (research organisations, universities, etc.)
- Requires **shift in research evaluation** towards Open Science
- Has the **potential to become an established platform** for research products

Membership: PLOS (Public Library of Science)

Concept overview

- Non-profit organization, founded in 2000 by scientists to provide free and open access to scientific research. Flagship (mega) journal: *PLOS One* (2006)
- Now highly respected across disciplines (science/med.)
- Strong supporter of Open Science (Preprints, Open methods, data, code, etc., optional Open peer review)
- All PLOS journals provide APC-alternative models for institutions (institutional partnerships / memberships) to simplify process for authors and reduce burden of cost
 - Flat Fee Agreements between PLOS and institutional partners; aim at corresponding authors
 - Community Action Publishing (CAP): Publishing costs of “*highly-selective publishing*” distributed among institutions of all authors
 - Global Equity Model: Single, annual fee, based on institution’s research output and regional economy
- APCs for researcher w/o inst. partnership model nor covered by Research4Life program

Costs

- Publication fees payable upon article acceptance; can be substantial depending on journal
- Costs for Institutional Partnerships??
- PLOS is still “experimenting” with financing models

Librarian’s View

- Impressive how PLOS managed to evolve from a “cluster” of articles to a **suite of influential journals**
- Research institutions / universities seen as **key partners**
- Flat Fee and CAP models aim at **equitable distribution of costs**, but also resemble Publish and Read agreements
- Global Equity Model closest to **membership model**
- Cudos to PLOS for trying to **offer diverse OA options**, but multitude of options **may be confusing**



Author-Accepted Manuscripts (AAMs) and the Rights Retention Model

(Subscription +) Rights Retention

Concept overview

- Definition: Rights Retention allows authors to retain rights in their work, rather than signing these over to a publisher. They can share and reuse their work however they wish, without having to ask publisher permission.
- In practice: Publication in any (including “closed” = subscription) journal.
- Peer-reviewed manuscripts (Author-Accepted Manuscripts, AAM) with CC-BY sent to repository
- Unless explicitly ok’ed by publisher, inform them at submission!

Costs

- As before, e.g., subscription fee
- Infrastructure to host AAMs needed

Librarian’s View

- Very promising alternative
- Results in two parallel versions of papers (Version of Record at publishers + AAM)
- Future of journals? (Which journals can exist if all manuscripts of their research articles are also available in repositories?)
- Changes the “FAIRness” of manuscripts, not of journals (no changes to traditional publishing)

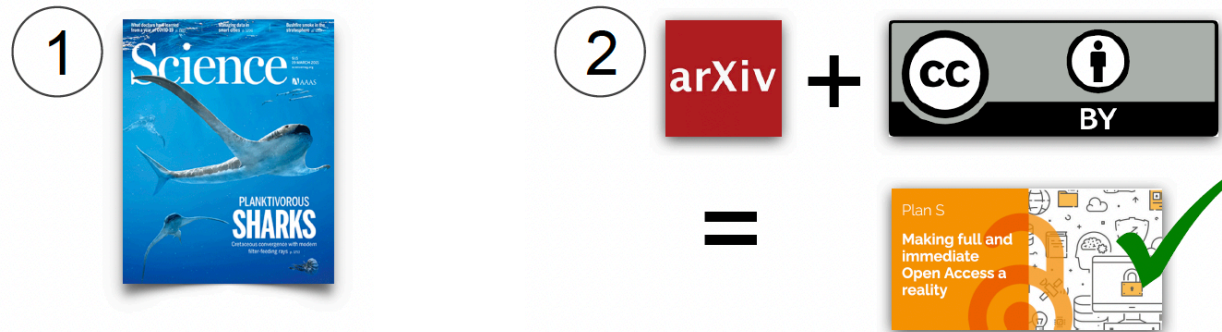
Science



Version of Record published in closed (subscription) journal

Rights Retention applicable if funder requires use of open license (e.g., CC-BY)

- **Peer-reviewed manuscripts** (Author-Accepted Manuscripts, AAM) with **CC-BY** sent to repository → **free to read and use for all**



Results in **two parallel versions** of papers (Version of Record + AAM)

- Changes the “**FAIRness**” of **manuscripts**, not of journals (no changes to traditional publishing)





Schematic Overview



Publication Business Models








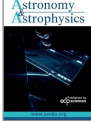
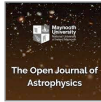
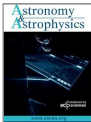

<https://doi.org/10.18727/docs/15>

	Work	Publishing Model	Notes and examples	Established publishers involved?	READING	PUBLISHING	RE-USE
					Immediate global read-access to OA content?	Global OA publishing w/o fees per article (APCs)? Reduces risks of quantity-driven publishing, e.g., lower standards to publish more.	OA content governed by open licenses (e.g., CC-BY)?
Published article (Version of Record, VOR)		Closed access	Traditional subscription Hybrid journals: see APCs	Yes	No	No	No
		APCs	Article Processing Charges (APCs) Author-facing costs per article ("Gold OA")	Yes	Yes	No	Yes
		Read & Publish Agreements	Read-and-Publish (RAP) / Publish-and-Read (PAR) Contracts based on institution's subscriptions and estimated OA publishing. Often OA only for limited no. of articles ("capped") in selected journals. Typically originating from Transformative Agreements.	Yes	Yes	No	Yes
		Community-driven OA	Overlay journals Deploying eprint servers + a refereeing system Community-led publishing services e.g., SciELO (Scientific Electronic Library Online)	No	Yes	Mostly (typically no fees) Yes	Yes
		Collaborative OA	Conditional models , e.g., Subscribe to Open (S2O), Crowdfunding. OA only if requirements are met. SCOAP3 CERN-led partnership in High Energy Physics	Yes	Yes	Yes	Yes
		Membership	Membership / flat fee e.g., institutional, consortial, library, individual membership	Both possible	Yes	No	Yes
Refereed manuscript		Rights Retention	Author-Accepted Manuscript (AAM, i.e., refereed manuscript) self-archived in trusted repository with CC-BY license . Article Version of Record (VOR) can be published closed (with publisher consent) or Open Access.	No	Yes	Yes	Yes

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ESO LDIS dept., May 2024

Publication Business Models

<https://doi.org/10.18727/docs/15>

	Work	Publishing Model	Notes and examples	Established publishers involved?	READING Immediate global read-access to OA content?	PUBLISHING Global OA publishing w/o fees per article (APCs)? Reduces risks of quantity-driven publishing, e.g., lower standards to publish n	RE-USE OA content governed by open licenses (e.g., CC-BY)?
Published article (Version of Record, VOR)		Closed access	Traditional subscription Hybrid journals: see APCs	Yes	No	No	
		APCs	Article Processing Charges (APCs) Author-facing costs per article ("Gold OA")	 		 	Yes
		Read & Publish Agreements	Read-and-Publish (RAP) / Publish-and-Read (PAR) Contracts based on institution's subscriptions and estimated OA publishing. Often OA only for limited no. of articles ("capped") in selected journals. Typically originating from Transformative Agreements.	Yes	 	No	Yes
		Community-driven OA	Overlay journals Deploying eprint servers + a refereeing system Community-led publishing services e.g., SciELO (Scientific Electronic Library Online)	No	Yes	Mostly (typically no fees) Yes	
		Collaborative OA	Conditional models, e.g, Subscribe to Open (S2O), Crowdfunding. OA only if requirements are met. SCOAP3 CERN-led partnership in High Energy Physics	Yes	Yes		Yes
		Membership	Membership / flat fee e.g., institutional, consortial, library, individual membership	Both possible	Yes	No	Yes
Refereed manuscript		Rights Retention	Author-Accepted Manuscript (AAM, i.e., refereed manuscript) self-archived in trusted repository with CC-BY license. Article Version of Record (VOR) can be published closed (with publisher consent) or Open Access.	No	Yes	Yes	

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Alternative models:

Work	Publishing Model	Notes and examples	Established publishers involved?	READING Immediate global read-access to OA content?	PUBLISHING Global OA publishing w/o fees per article (APCs)? Reduces risks of quantity-driven publishing, e.g., lower standards to publish more.	RE-USE OA content governed by open licenses (e.g., CC-BY)?
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Published article (Version of Record, VOR)	Closed access
	APCs
	Read & Publish Agreements
	Community-driven OA
	Collaborative OA
Refereed manuscript	Membership
	Rights Retention

Community driven OA:
 Overlay journals (*Open Journal of Astrophysics*)

Collaborative OA:
 Conditional model S2O (A&A)

Rights Retention:
 Subscription + Author Approved Manuscripts (*Science*)

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Predatory Publishing

Example 1

Start Your Submission & Bring Your Study More Visibility

Dear Observatory Bibliographers Collabor...,
Have a joyful New Year!

Offering a platform for global research dissemination, the **300+ open-access journals** span a diverse range of disciplines. More than 115 journals have been consistently releasing content for **a decade**.

American Journal of Astronomy and Astrophysics (AJAA) stands as an international journal on this platform, providing a forum for the robust discussion of influential concepts among professionals and scholars.

Call for Articles

We formally invite you to send unpublished manuscripts to AJAA. If you wish to publish your paper in our journal, please click the below link:

<http://www.ajoaa.net/sg/KOI02>

Whom are you looking for?

Known journal?

Proper contact info?

Example 2

IOSR Journals

www.submitpapersnow.com

Dear Author,

Sub: Publish paper in Best Impact Factor Journal

IOSR Journals Indexing: Index Copernicus, Cross Ref (USA), NASA ads, Citation Index, Google Scholar, Open- J Gate.

IOSR Journals provides DOI (Digital Object Identifier) to each article. IOSR Journals DOI is 10.9790.

IOSR Journals got 9th Ranking by AQCJ (African Quality Center for Journals) - Top 20 Journals Ranking.


- Papers are invited for IOSR Journals March 2025 Issue related to all fields of Engineering, Management, Physics, Chemistry, Mathematics, and Medical & Dental Science, Pharmacy, Applied Sciences, Nursing, Humanities, Agriculture and Environment science and Social Science etc.**

Which IF?

Poor grammar

All fields??

Example 3


jnmed@directivpublications.org
 Publish your research - The Journal of Nuclear Medicine
 To: ESO Garching librarians,
 Reply-To: juliawalker@directivepublctions.org

ESO Inform...datory publishers 12. March 2025 at 09:21

Dear **Dr. Professor**,

We hope this message finds you well. **The Journal of Nuclear Medicine** is currently accepting article submissions for our upcoming publication cycle. We would like to invite you to submit your research article to be considered for publication in our journal.

The Journal of Nuclear Medicine is a highly regarded and prestigious publication in the field of **The Journal of Nuclear Medicine**. Our mission is to provide a platform for researchers to publish their innovative work and contribute to the advancement of medical and scientific research.

Our submission process is easy and user-friendly. Simply email your manuscript as an attachment to below email or You may submit your manuscript as an attachment to **this link**: [Click here to submit](#) along with a cover letter containing the article title, abstract, and a statement that the article is original and has not been published elsewhere.

Please review our submission guidelines before submitting your article to ensure your work meets our requirements. If you have any questions or concerns, please do not hesitate to contact us.

Thank you for considering our journal as a venue for your work.

Regards
 Julia Walker
The Journal of Nuclear Medicine
 USA
 Email: juliawalker@directivepublctions.org

Title exists, but published by Society of Nuclear Medicine & Molecular Imaging

Suspicious submission procedure


Weird IP address (“...publctions.org”)

Example 4

Domain mismatch

Manuscripts related to...OA??

Calliope + Wyatt:
Characters from a novel
("The Magicians" by
Lev Grossman, 2009)


Calliope Wyatt calliope.wyatt@polscientific.net
ESO Inform...datory publishers 7. March 2025 at 04:22

Welcome to Submit Your Research for Open Access Publication

To: Uta Grothkopf,
Reply-To: Calliope Wyatt

Dear Scholar,

Following the latest report from the Swiss National Science Foundation (SNSF) on **November 13, 2024**, at 17:00, it has been revealed that by the end of 2022, the percentage of open access (OA) publications produced by SNSF-funded projects had risen to **81%**. The SNSF has allocated several million francs for the publication of journal articles, highlighting the growing importance and impact of the OA publishing model in the academic community.

Our publishing house is committed to promoting OA publishing, providing scholars with a broader platform to disseminate their research findings. If you have any manuscripts related to this initiative that you would like to submit to our OA journals, we warmly invite you to reach out to us.

Submission Details:

- 1.Submission Deadline:** 31 May 2025
- 2.Review Process:** All submissions will undergo a rigorous peer-review process to ensure quality and relevance.
- 3.Open Access:** All articles published by us are made immediately available worldwide under an open access license.

We look forward to the possibility of publishing your valuable research and contributing to the advancement of knowledge sharing and collaboration in the academic community. If you have any questions or need further information, please do not hesitate to contact us.

Thank you for your attention and support!

Best regards,
Calliope Wyatt
Managing Editor
Contact: frederic.poh@core-science.net

Characteristics of Predatory Publishers

- Widely distributed, unrequested “invitations” —> aggressive solicitation practices
- Emails with very little information, no proper website —> not transparent re. practices, policies, ownership
- Unusual language, no clear addressee, language and spelling errors —> suspicious appearance
- Misleading or wrong info on e.g., editorial boards, impact factor —> no quality peer-review, dubious editorial standards
- Title often similar to known journals —> authors tricked into publishing with them
- Not always clear from the beginning: Authors need to pay to publish / hidden or excessive publication fees
—> exploitation of “Gold” (APC-based) Open Access publishing; high costs for low / no quality



Jeffrey Beall (lecturer Univ. Colorado, Denver, librarian, founder of *Beall's List* of predatory publishers [until 2017]):

“...publishers that are ready to publish any article for payment.”

—> Publishers that intentionally deceive authors

Not only journals affected, but also conferences, books, chapters, editor roles, individual articles within journals, etc.

Consequences of Publishing in Predatory Journals

Why is it important? Why should you care? Why not just delete the messages?

Not knowing about predatory publishing can be harmful:

- **For researchers:**
Reputation damage. Work ignored. Loss of funding credibility. Negative effects on career advancement
- **For institutions:**
The same! Plus skewed publication metrics, difficulty tracking (proper) research impact
- **For science (in particular Open Science):**
Misinformation. Undermining trust of general public in science

The worst:

- Paper Mills. Flood the publishing market with fake articles. Thousands of articles already retracted, entire publishing branches close (Hindawi / Wiley)
- Enabled by poor / absent quality control

Motivations to Publish in / Review for Predatory Journals

Motivations may include:

- **High pressure to publish.** If funds to cover APCs are available, it might look like fast and easy way to publish
- **Being lured into publishing through false claims** (e.g., impact factor, known researchers on editorial board or organising committees of conferences — **Beware!** They might not know about it!)
- **Available “unused” manuscripts** which otherwise don’t get published
- **Lack of awareness.** 2022 report: nearly 1/4 of ~2000 survey respondents from 112 countries / all disciplines / career stages said they had either published in a predatory journal, participated in a conferences, or **did not know if they had!**

For reviewers:

- **Reviewing for many journals might look good on CV.** Reviewing for predatory journals may have the opposite effect.

How to avoid Predatory Publishers

Strategies and Tools (1)

1. **Be alert!** Do not ignore your doubts; dig deeper, find out more.

2. **Blacklist / Whitelists**

Blacklists:

- Beall's List. Potential, possible, or probable predatory scholarly OA publishers; ~2012-2017
- Successor: Cabells List (for-profit)

Whitelists:

- [DOAJ \(Directory of Open Access Journals\)](https://doaj.org), doaj.org. Includes only vetted titles. **The** source of OA journals and publishers.
- Commercial journal indices, e.g., Web of Science and Scopus. Good chance of quality, but not guaranteed.

Strategies and Tools (2)

3. Membership Organizations. Is the publisher a member of

- OASPA (Open Access Scholarly Publishing Association) oaspa.org
Non-profit trade association of OA journal and book publishers
- COPE {Committee on Publication Ethics} www.publicationethics.org
Non-profit organisation that educates and supports editors, publishers, etc., in particular on publishing ethics
- United2Act unite2act.org
International movement taking action against paper mills in scholarly publishing. It “unites, educates, and mobilises” stakeholders incl. publishers, research institutions, universities. Signatories listed on website

4. Checklists

- Think. Check. Submit. thinkchecksubmit.org
Helps researchers identify trusted journals and publishers through tools and practical resources. Multi-lingual checklists.



5. Find advice!

- Publishing guidelines at your institution. Talk to colleagues, peers, librarians.

Summary

Other checklists on the web



Predatory publishing guide

1


Take a good look at the publisher's website.

2

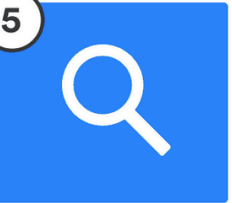

Verify if the journal is a member of DOAJ, COPE, OASPA, or STM.

3

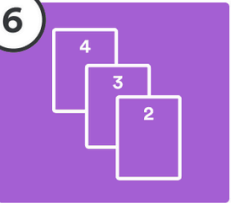

Check the journal's contact information.

4


Look up the members of the editorial board.

5


Bring a critical eye to their peer review process and publication schedule.

6


Browse previous issues of the journal.

© Paperpile: What are predatory journals", 2025,
<https://paperpile.com/g/predatory-journals/>



Conclusions

Outlook and Conclusions

Varied Publishing Landscape

- Large **mix of models** now and in coming years
- **Researchers should actively shape** the publishing landscape — Quality is key!
- **Authors** should know **pros and cons** of publishing options and voice their opinions
- **Librarians** provide support

The Future of Publishing is defined by you!

- Already **too many unintended side-effects** (e.g., continued injustice of favouring authors from the Global North). **Better OA models** than APCs are available! (but need more attention)
- Researchers, authors, librarians, funders make **strategic choices** when enabling OA
- Let's together strive for **collaborative, equitable, transparent, sustainable models**

OA goal: Reduce / stabilise costs

- Stabilising costs: **main driver of OA** movement!
- **Avoid dependancy** on (high-price commercial) publishers (no more Big Deals!)

Thank you!
Any questions?

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