



IDENTIFYING PREDATORY ACADEMIC JOURNALS AND CONFERENCES

This document is part of the UNESCO Open Science Toolkit, designed to support implementation of the UNESCO Recommendation on Open Science. This factsheet draws on and was prepared in collaboration with an InterAcademy Partnership (IAP) study on predatory academic journals and conferences, accessible at www.interacademies.org/publication/predatory-practices-report-english, with a summary report in English, Arabic, Chinese, French, Portuguese, Russian and Spanish available at www.interacademies.org/project/predatorypublishing.



While the UNESCO Recommendation on Open Science is an important milestone in the transition to a global science system that is more transparent, inclusive and democratic, it also cautions that open science may have unintended negative consequences, including further fuelling established and evolving “predatory behaviours”. As the concept and practice of open science continue to evolve (alongside evolving wider academic and publishing business models, research evaluation and peer-review systems), the research sector is becoming increasingly vulnerable to overt commercial predation. Driven by profit and self-interest, this predation is becoming more prevalent. It risks polluting the global research enterprise, with serious implications for research quality and integrity; wasting research funding; derailing research careers; and compromising evidence-based policy decisions.

Predatory journals and conferences are the most well documented. They solicit articles and abstracts from researchers through deceitful or misleading practices that exploit the pressure on researchers to publish and present their work. Their practices include rapid pay-to-publish models with little or no peer review, fake editorial boards falsely listing respected scientists, fraudulent impact factors, hijacked titles and aggressive spam invitations.

Identifying predatory behaviours or practices is not always easy. There is a spectrum of journal and conference practices: a broad set of dynamic behaviours and characteristics that distinguish between predatory behaviors ranging from outright fraud, low-quality, to questionable and unethical practices, and good practice. All types of publishing and conferencing outlets, from reputable and established traditional publishers to the newly emerging and open access ones, can potentially engage in predatory unethical practices, anywhere in the world.

What are “predatory behaviours” in academia?

Predatory behaviours are those that deploy deceitful or misleading practices to make money. They are motivated mainly by profit rather than scholarship and include predatory journals and conferences; the falsification of experimental evidence; fake or embellished qualifications, such as “predatory PhD”, certificates, awards and medals; and predatory preprint servers. All of these operate largely without restraint, thriving in increasingly commercial academic cultures all over the world.



A spectrum of behaviours



TYPICAL MARKERS

FRAUDULENT

- Rapid and unrealistic service
- Poor or no peer review
- Plagiarise reputable outlets
- Use researchers' names without permission
- Fake editorial or advisory boards
- Meaningless programmes
- Lie about their credentials e.g. impact factor

LOW QUALITY

- Breach good practice
- Low quality peer review
- Aggressive or indiscriminate solicitation
- Inactive editorial or advisory board
- Lack of focus or organisation
- Invitations are full of mistakes
- Exaggerate their prestige
- Promised services are poor or lacking

QUALITY

- Thorough peer review
- Strong editorial and advisory boards
- Transparent, robust policy to ensure research and operational integrity (practice due diligence)
- Transparent policy for retraction or refund
- Clear about costs
- Take proper action when challenged

Predatory journals and conferences help poor research flourish and compromise good research. They can destroy careers, ruin individual and institutional reputations and distort the knowledge base. In charging for services they do not provide, at least to an appropriate standard, they can dupe researchers in all regions, disciplines and career stages (a conservative estimate of 1.2 million researchers to date) and waste valuable resources. Early career researchers in developing countries may be especially vulnerable, further exacerbating the bias and research gap between researchers in low- and high-income countries. Predatory journals are rising at a concerning rate (hundreds every month): at the time of writing (May 2022), there were over 16,100 predatory journals, with an estimated total number of journals at c. 60,000.

Why do predatory journals and conferences exist?

According to the InterAcademy Partnership (IAP)¹, predatory journals and conferences are symptomatic of three root causes or drivers:

1. The monetization and commercialization of academic research output, including an academic publishing system that can risk putting proprietary and commercial interests ahead of research integrity, and the unintended consequences of the current academic publishing models, in particular the author-pays (pay-to-publish, pay-to-present) model of open access.
2. Research assessment – the metrics by which research is evaluated and careers are shaped, together with journal and institutional ranking. The publish-or-perish (quantity over quality) nature of research evaluation systems all over the world places both researchers and institutions under pressure, a fact exploited by predatory actors and creating perverse incentives for researchers who knowingly use them.

¹ The InterAcademy Partnership (IAP) is a network of more than 140 national, regional and global member academies who work together on evidence-based solutions to the world's most challenging problems. IAP harnesses the expertise of the world's scientific, medical and engineering leaders to advance sound policies, improve public health, promote excellence in science education, and achieve other critical development goals. IAP's four regional networks - AASSA, EASAC, IANAS and NASAC - are responsible for managing and implementing many IAP-funded projects and help make IAP's work relevant around the world. More information about IAP can be found at www.interacademies.org, on Twitter at @IAPartnership, on LinkedIn and YouTube.



3. Deficiencies in the peer review system, notably the lack of transparency (whether fully open, anonymous or a mix of the two), further exacerbated by the lack of training, capacity and recognition of peer reviewers. The lack of clarity and transparency in the peer-review process, originally designed to minimize bias in the system through confidentiality, enables predatory practices to go unnoticed and unchallenged. The lack of professional recognition of, and training for, peer review creates both disincentives to serve as a

peer reviewer and, because demand exceeds supply, incentives to cut corners and reduce rigour, making the promise of predatory services more appealing.

Researchers who have already used predatory outlets, whether knowingly or unknowingly, informed an IAP survey that they did so predominantly due to a lack of awareness at the time but also due to the need to advance their career, convenience (some predatory outlets can be cheaper, faster or easier), and peer pressure.

Reasons some researchers have used predatory outlets (according to an IAP survey)



What can be done about predatory journals and conferences?

All actors and stakeholders have a responsibility to promote an open, inclusive and global discussion on how to transition to more sustainable, less profit-motivated academic models, including devising alternatives to author-pays or pay-to-publish/pay-to-present models to cover the costs associated with academic publishing and conferences. These actors include researchers, scientists and scholars, leaders of higher education and research institutions, educators, academia, members of professional societies, students and young researcher organizations, information specialists, librarians, publishers, editors and members of professional societies, research funders and philanthropists, policymakers, learned societies and intergovernmental organizations (IGOs). Research governance institutions – including IGOs and national government ministries of science and higher education - have a responsibility to reform the research evaluation system so that it is more equitable, impactful and fit-for-purpose, building on an already growing momentum of "responsible research assessment" led by some research funders and scholarly organizations.

Specifically, as stated in the UNESCO [Recommendation on open Science](#), the United Nations Member States can play a vital role in "enforcing effective governance measures and proper legislation in order to address inequality and prevent related predatory behaviours". For example, the InterAmerican Institute for Global Change Research (IAI) has adopted a [Decision](#) ("Decisions of the 29th Meeting", 2021) – directed to its Directorate and science policy advisory structures – to work with national and international academies of science, scientific publishers, universities and other relevant partners to raise awareness and prevent the growth of fraudulent and predatory publishing in the Americas. This Decision puts predatory academic practices on the radar of member governments and creates a platform for future cooperation.



At global and regional levels, other IGOs can similarly build a common shared purpose and momentum to effect change, as well as monitoring and oversight of these predatory practices. Examples of interventions include:

- **adopting actions to curb the growth of predatory practices**, either separate to or within the context of the UNESCO Recommendation on Open Science;
- **leading a debate** on the value of establishing a global body for governance and accreditation for academic publishing, with InterAcademy Partnership, the International Science Council (ISC) and other willing bodies, building on successful experiences at the national and regional level; and
- **leading a review** of current research evaluation systems and criteria, with the ISC, the Latin American Council of Social Sciences (CLACSO) and other active and willing bodies, building on the work of ongoing initiatives in this field.

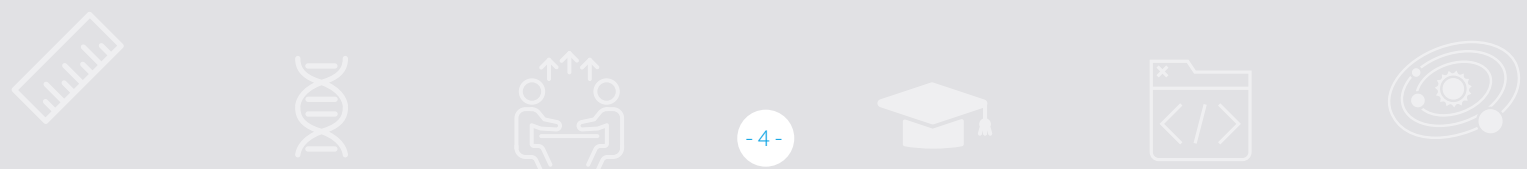
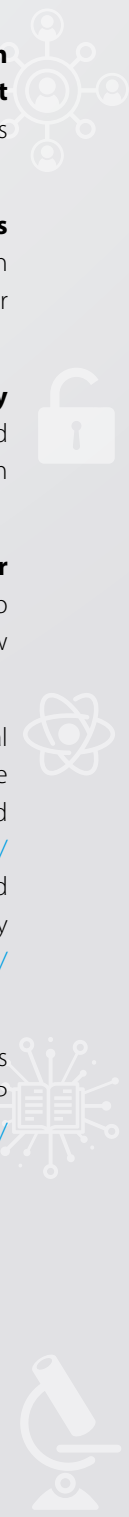
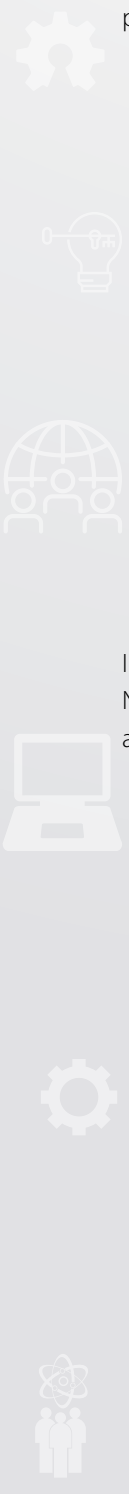
In parallel, at the national and subnational level, United Nations Member States can task their respective research and higher education departments/agencies with:

- **raising awareness** of their constituencies to predatory journals and conferences;
- **reviewing and reforming metrics** for research and career evaluation, so that they account for quality rather than quantity, impact rather than numbers, to help effect change in the research assessment culture;
- **providing robust training courses** on responsible scholarly communication, the dangers of predatory journals and conferences for researchers, and resources available to them, perhaps as a prerequisite for receiving funding;

- **stipulating when making awards/grants** that papers should appear in and cite journals of good standing, and not counting predatory journals and conferences from any grant/candidacy they receive;
- **familiarizing themselves with the Global Research Council's Responsible Research Assessment Initiative** and learn from national funding agencies who are already effecting change;
- **developing, implementing and auditing policies** that promote responsible scholarly communication of work funded by them, and ensure researcher compliance;
- **promoting/supporting research into predatory journals and conferences** to better understand them, improve scholarly communication and inform policies and tools that are more impactful;
- **promoting/supporting more research on peer review and training for peer review**, to help promote standards and understand how peer review works and could evolve in future.

Resources are also available to guide the action of individual authors. For example, the Think.Check.Submit initiative aims to educate researchers, promote integrity and build trust in credible research and publications (<https://thinkchecksubmit.org/>). Similarly, Think. Check. Attend guides researchers and scholars to judge the legitimacy and academic credentials of conferences (<https://thinkcheckattend.org/>).


Further information, the full and summary reports and wider outreach materials can be found on the IAP study webpages at www.interacademies.org/project/predatorypublishing.






Predatory journals and conferences


WHAT are they?




Journal and conference practices that deceive or mislead researchers



Include fraudulent, low quality and unethical practices



Motivated by profit, not scholarship, they exist worldwide




Driven by monetisation, research metrics and peer review opacity


WHY are they a problem?



Damage careers and reputations; threaten research integrity



Hundreds of new predatory products every month




Compromise millions of researchers; waste billions of dollars



Dupe new and established researchers

HOW can we combat them?




Practice due diligence



Raise awareness



Communicate their threat to science and society



Work collaboratively to stop them

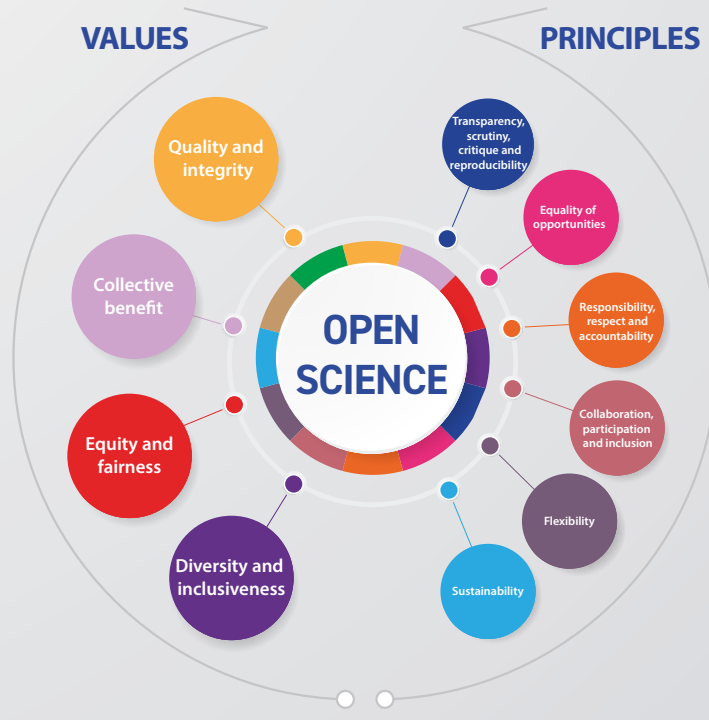
Credits and acknowledgements

- This synthesis document draws on an [InterAcademy Partnership study](#). This synthesis was prepared by the members of the IAP Working Group on Combatting Predatory Academic Journals and Conferences: Asfawossen Asrat, Ana María Cetto, Victorien Doughton, Stefan Eriksson, Lai Meng Looi, Shaher Momani, Diane Negra, Rabab Ahmed Rashwan, Marcos Regis da Silva, Abdullah Shams Bin Tariq and Susan Veldsman, and Tracey Elliott (Project Director).
- The three figures in this document were designed by the IAP Secretariat, approved by the Working Group and prepared by Paula Susarte Dealbert (independent contractor).

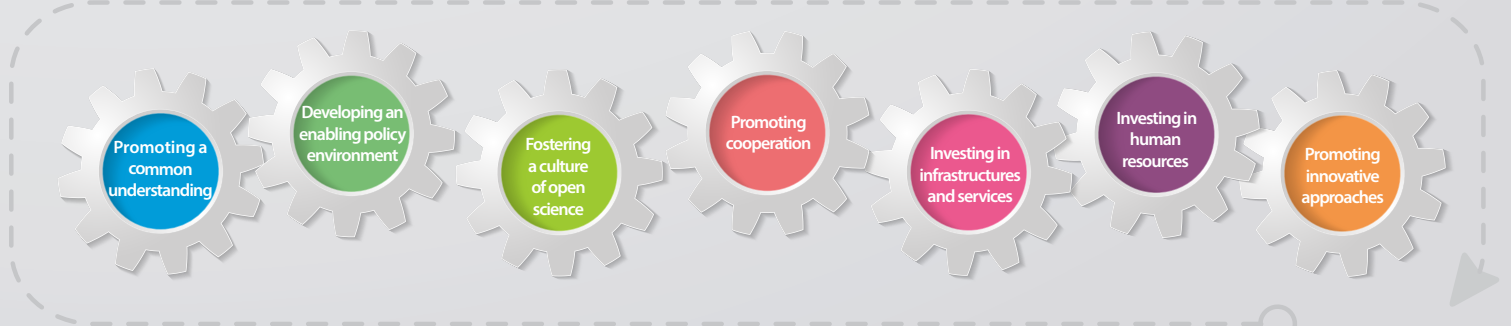


UNESCO Recommendation on Open Science at a Glance

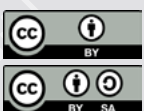
The **Recommendation on Open Science**, the first international standard setting instrument on open science, was adopted by 193 countries in November 2021 at the 41st session of the UNESCO General Conference. The Recommendation provides an internationally agreed definition and a set of shared values and guiding principles for open science. It also identifies a set of actions conducive to a fair and equitable operationalization of open science for all at the individual, institutional, national, regional and international levels.



OPEN SCIENCE



AREAS OF ACTION



This work is based on original work copyright of the InterAcademy Partnership (IAP) licensed under a [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by-sa/4.0/). Images from the UNESCO Recommendation on Open Science are licensed under the Attribution-ShareAlike 3.0 IGO (CC-BY-SA 3.0 IGO) license. <https://doi.org/10.54677/VQWQ5022>. Graphic design and typeset: Claudia Tortello

