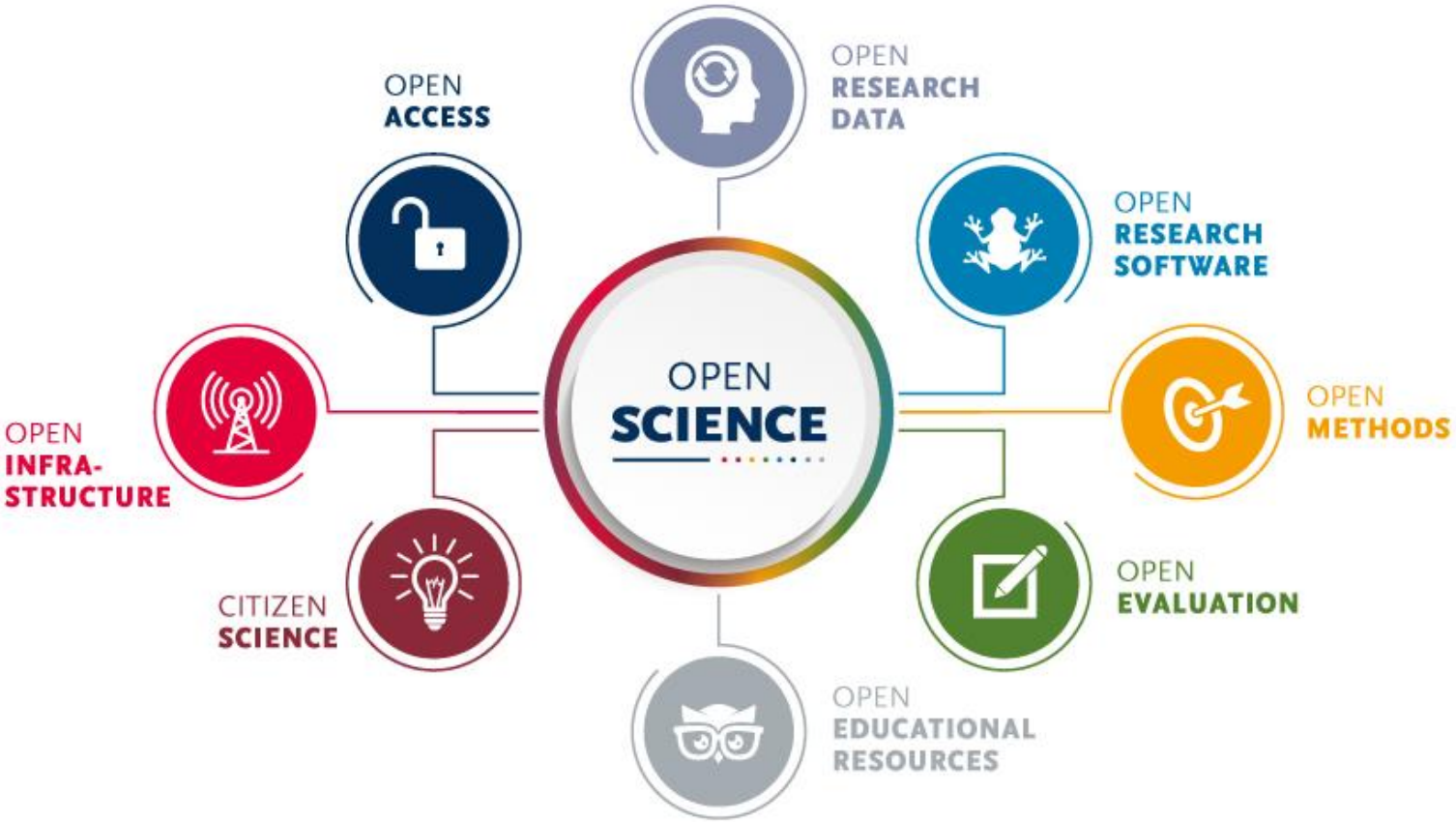
Leabharlann UCD
UCD Library

Open Science

What, why & how

Michelle Dalton
Head of Research Services
UCD Library



Source: University off Potsdam, ZIM: https://www.uni-potsdam.de/en/openscience

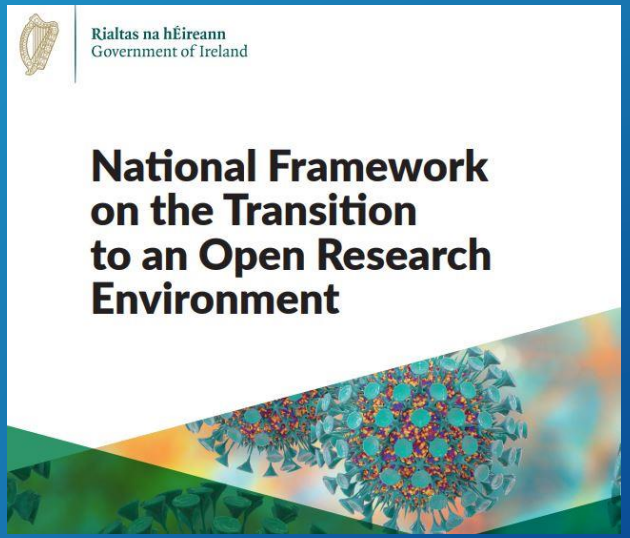
McCaffrey, Ciara et al. (2020). Open Science Skills Visualisation. Zenodo: doi.org/10.5281/zenodo.3702401

The Acceleration of Open Science

- Funder Requirements (Plan S 1st Jan 2021)
- COVID-19, climate change & other global challenges that require urgent and collaborate solutions
- The Impact Agenda
- Combat challenge of mis- and dis-information

National Open Research Forum (NORF)

By 2030 “All Irish scholarly publications resulting from publicly funded research will be openly available by default”



How Open Science supports Research Integrity

- Improves **transparency and reproducibility**
- Helps identify & **correct errors** more efficiently
- Researchers can access a wider range of research, promoting greater **interdisciplinarity** and **more diverse collaborations**
- Increases **public trust** in science through greater transparency reducing mis- and disinformation in society

International Science Council

https://council.science/current/blog/tbb-webinars-takeaways

BLOGS VIDEOS

Six Takeaways on Science Communication from our Talk Back Better Webinar Series

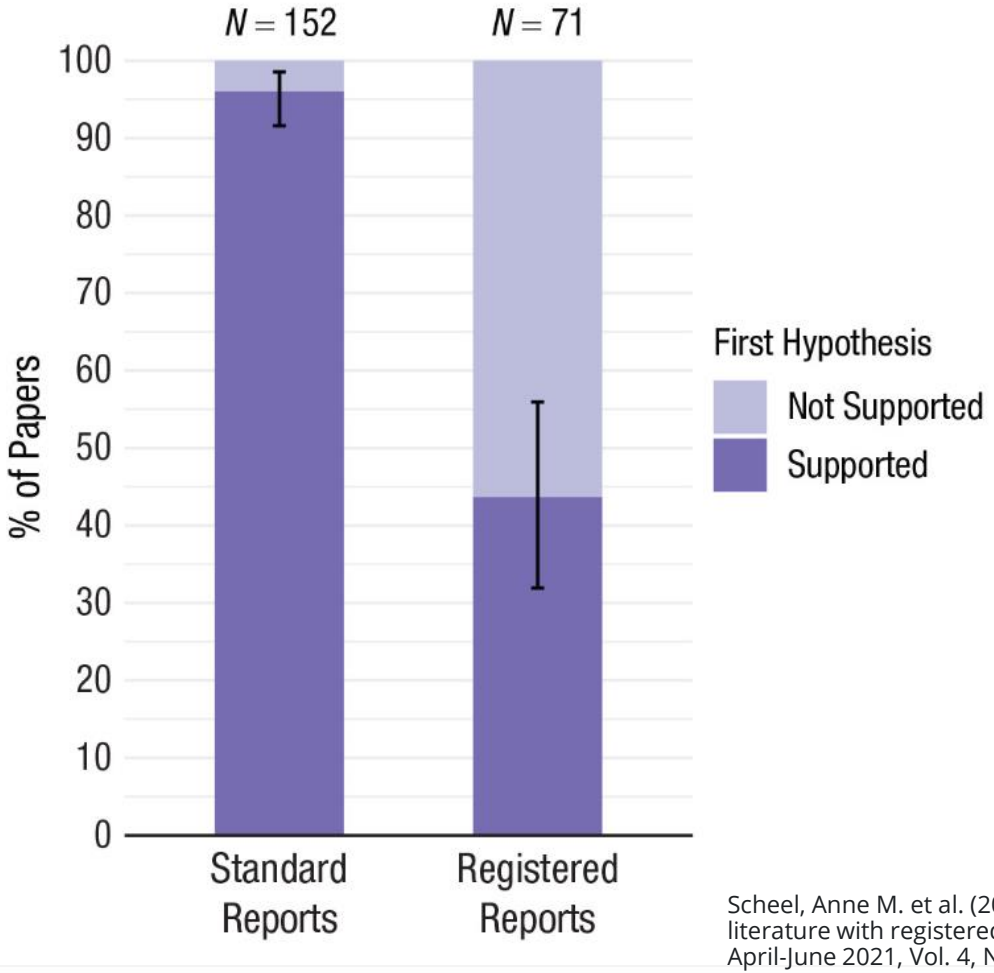
Last week, the ISC concluded its successful webinar series on science communication. Nick Ishmael-Perkins, Senior Consultant at the ISC and host for the series, sums up the key takeaways from our weekly sessions that took place from May to June 2022.

Open Outputs

- **Open Access to publications** improves knowledge transfer
- Supports **greater visibility of research & researchers** including those who may not publish in “high impact” journals or publishing on less ‘popular’ topics
- **Preprints** help errors to be spotted & fixed earlier
- **Data & code sharing** increases reproducibility

Open Methods

- **Pre-registration** of hypotheses before study starts
- **Registered Reports** (manuscripts accepted for publication before data collection & analysis so removes incentive for selective reporting)
- Open methods provide opportunity for feedback & potential **improvements** before data collection



Positive result rate significantly lower in registered reports than in standard reports

Publisher bias?
Reporting bias?
Citation bias?

Scheel, Anne M. et al. (2021) An excess of positive results: comparing the standard psychology literature with registered reports. Advances in Methods and Practices in Psychological Science April-June 2021, Vol. 4, No. 2, pp. 1–12. DOI: 10.1177/25152459211007467

Fig. 2. Positive result rates for standard reports and Registered Reports. Error bars indicate 95% confidence intervals around the observed positive result rate.

How Open Science benefits you and your research?

- A larger and more diverse audience for your research, especially outside the academic community
- Greater & faster innovation, re-use and uptake of your research findings, increasing potential impact
- Increase citation impact* from greater visibility and access
- Get credit for creating and sharing broader outputs like data, code etc
- Comply with funder requirements
- Access & re-use existing research data

https://doi.org/10.7717/peerj.4375 | https://doi.org/10.1371/journal.pone.0253129

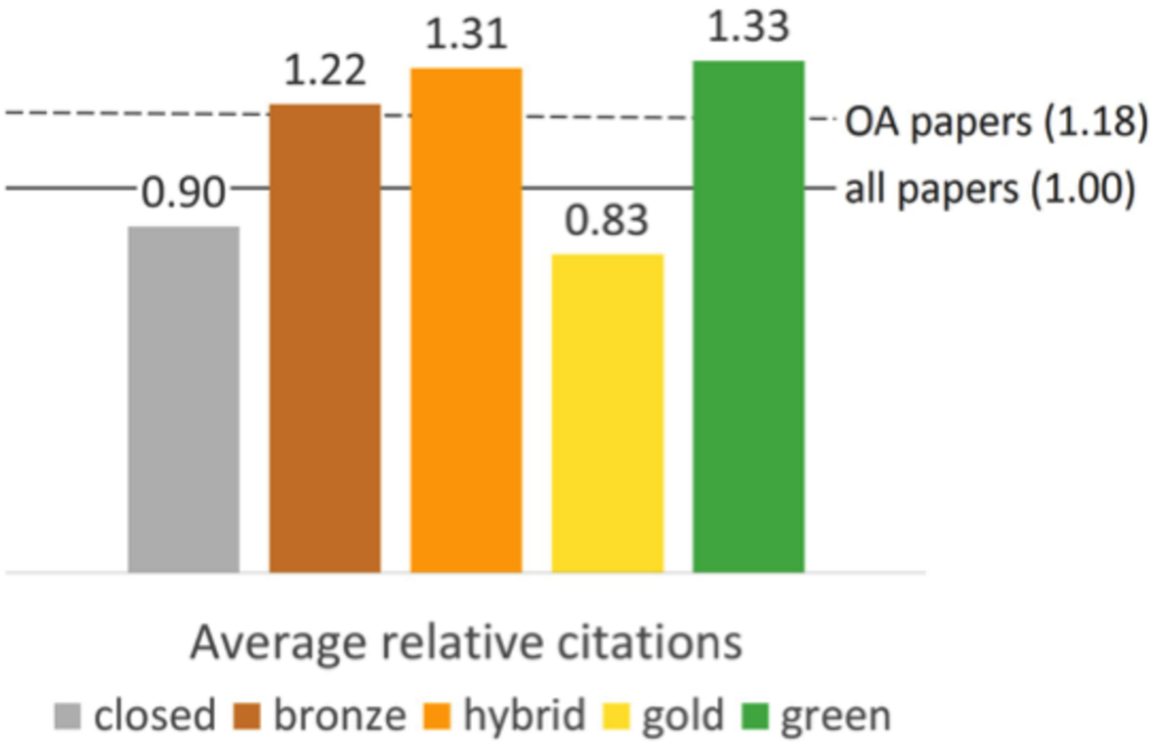
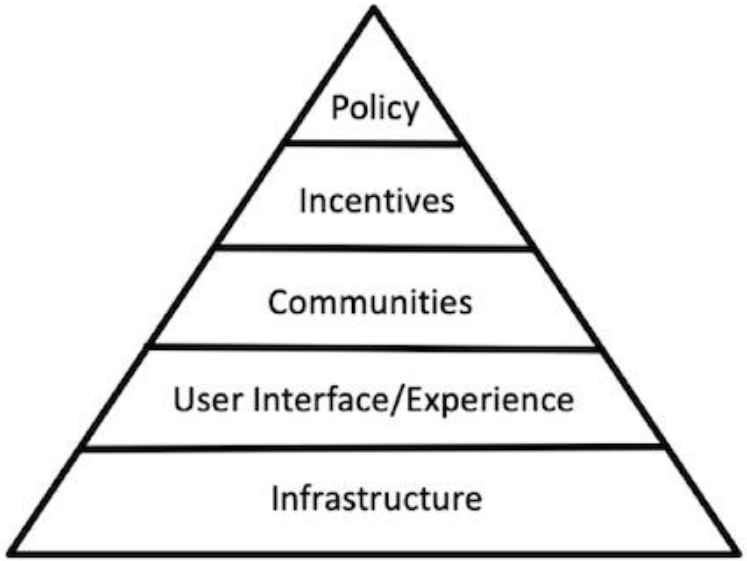


Figure 5: Average relative citations of different access types of a random sample of WoS articles and reviews with a DOI published between 2009 and 2015. DOI: 10.7717/peerj.4375/fig-5

What Open Science means for you & your research in practice?

- A spectrum not binary
- Looks different for different disciplines and methodologies
- “As open as possible, as closed as necessary”
- Progress not perfection: What next step can I take?
- A shift is happening in research assessment (DORA, CoARA etc.) from venue level towards article level evaluation

COS Strategy for Culture & Behaviour Change



Make it required

Make it rewarding

Make it normative

Make it easy

Make it possible

Academic Libraries

Source: https://www.cos.io/blog/strategy-for-culture-change

IReL Open Access Publishing Agreements (26)

Acadamh Ríoga na hÉireann
Royal Irish Academy

SPRINGER NATURE

PLOS

acm

Rockefeller University Press

THE ROYAL SOCIETY

Taylor & Francis
an **informa** business

ANNUAL REVIEWS

NON SOLUS
ELSEVIER

OA articles published

2021: 2813 (42%)

2022 est: 3,164

RESEARCH REPOSITORY UCD Colleges & Schools Statistics All of DSpace

Welcome to Research Repository UCD

Research Repository UCD is a digital collection of open access scholarly research publications from University College Dublin. Research Repository UCD collects, preserves and makes freely available publications including peer-reviewed articles, working papers and conference papers created by UCD researchers. Where material has already been published it is made available subject to the open-access policies of the original publishers. This service is maintained by UCD Library.

zenodo

arXiv.org

Most downloaded

Publication
The economic and social impact of higher education
(Irish Universities Association, 2006) O'Carroll, C.
47109

Publication
Corporate governance, accountability and mechanisms of accountability : an overview
(Emerald, 2008) Brennan, Niamh; Solomon, J. (
Purpose – This paper reviews traditional corporate governance and accountability research, to suggest opportunities for future research in this field. The firs
296
32961 Scopus© Citations 278

Publication
Elderly care in Ireland - provisions and providers
(University College Dublin. School of Social Justice, 2010-0
31797

Publication
Accounting research : a practical guide
(Oak Tree Press, 1998) Brennan, Niamh
30712

Publication
Equality in education : an equality of condition perspective
(Sage Publications, 2005) Lynch, Kathleen
Transforming schools into truly egalitarian institutions requires a holistic and integrated ap-
7
132

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Making your research Open Access and complying with funder requirements

OPEN ACCESS PUBLISHING OPTIONS AT NO COST TO AUTHORS

no cost to author

UCD Library Publishing Agreements

The Library, in partnership with IReL, facilitates access to agreements with a range of journal publishers, which allow **UCD corresponding authors** to publish OA without paying publishing charges:

Publishers include:

- ACM
- ACS
- AIP
- BMJ
- Cambridge University Press
- Elsevier (200 articles p.a.)
- Emerald
- IEEE
- IOP
- Oxford University Press
- Royal Irish Academy
- Sage
- Springer
- Taylor & Francis
- Wiley

More details of

- Journals covered
- Publisher T&Cs

at: libguides.ucd.ie/oapublishing

OPEN ACCESS PUBLISHING OPTIONS AT NO COST TO AUTHORS

no cost to author

OA Journals with no Publishing Charges

Directory of Open Access Journals (DOAJ) lists 10,000 + reputable OA journals, which do not charge authors open access publishing costs.

Funder Platforms
A number of research funding organisations have publishing platforms that allow eligible grantees to publish OA at no cost to authors:

Examples:

- Open Research Europe (European Commission)
- HRB Open Research
- Wellcome Open Research

OPEN ACCESS PUBLISHING OPTIONS AT NO COST TO AUTHORS

no cost to author

Self-archive in an OA Repository

Upload your research to an OA repository, e.g. **Research Repository UCD**

- Submit the Author's Accepted Manuscript (AAM) version
- Some journals impose a 6-48 month embargo with this route.

Rights Retention
If funder conditions require research to be made OA immediately*, you should retain:

- copyright, where possible and
- the right to apply a CC BY licence to the AAM

This will override the publisher's embargo policy.

Submission text:
cOAlition S Rights Retention Strategy (including **SFI**), requires authors to include this statement in submission letter and/or acknowledgements:

"This publication has emanated from research [conducted with the financial support of/supported in part by a grant from] [funder name] under [grant number]

arising from this submission."

FUNDING OPTIONS FOR OA JOURNALS WITH AUTHOR CHARGES

with author charges

Article Processing Charges (APCs)

APCs may be payable by authors to cover OA publishing costs in some journals.

Directory of Open Access Journals (DOAJ) lists reputable OA journals and their APCs.

Many subscription journals allow individual articles to be published OA upon payment of an APC. These are called 'hybrid' journals.

Funder requirements:
Some funders allow APCs as an eligible cost.

cOAlition S funders (including **SFI**) *do not* cover publication fees in hybrid journals *unless* they are part of a transformative OA publishing arrangement.

- Check if UCD Library has a publishing agreement with your publisher
- See **Plan S** Journal Checker

[Making your research Open Access PDF guide]

IS OA “Predatory” publishing?

- Open Access is just an access model
- Always evaluate the credentials and quality of any publisher – subscription or open
- Research misconduct and authorship issues happen in subscription journals/paywalled articles too
- Open ≠ quality but it is an enabler and helps identify and correct misconduct and QRPs more quickly

Identifying reputable publication venues

Identify trusted publishers for your research

Through a range of **tools and practical resources**, this international, cross-sector initiative aims to **educate researchers, promote integrity**, and **build trust in credible research and publications**.

PRINCIPLES OF TRANSPARENCY

& Best Practice in Scholarly Publishing

publicationethics.org | doaj.org | oaspa.org | wame.org

WEBSITE

A Journal's website, including the text that it contains, shall demonstrate that care has been taken to ensure high ethical and professional standards.

It should:

- contain an 'Aims & Scope' statement and the readership clearly defined.
- include a statement on what a journal will consider for publication including authorship criteria e.g. not multiple submissions, redundant publications)
- ISSNs displayed clearly (separate for print and electronic).

It must not:

- contain information that might mislead readers or authors.
- attempt to mimic another journal/ publisher's site.

NAME OF JOURNAL

The Journal name shall be unique.

It must not:

- be one that is easily confused with another journal.
- mislead potential authors and readers about the Journal's origin or association with other journals.

PEER REVIEW PROCESS

Journal content must be clearly marked as whether peer reviewed or not. Peer review is defined as obtaining advice on individual manuscripts from reviewers expert in the field who are not part of the journal's editorial staff.

The journal's website should:

- clearly describe this process, as well as any policies related to the journal's peer review procedures including the method of peer review used.

The journal's website should not:

- guarantee manuscript acceptance or very short peer review times.

OWNERSHIP AND MANAGEMENT

Information about the ownership and/or management of a journal shall be clearly indicated on the journal's website.

Publishers should not:

- use organizational or journal names that would mislead potential authors and editors about the nature of the journal's owner.

ALLEGATIONS OF RESEARCH MISCONDUCT

Publishers and editors shall take reasonable steps to identify and prevent the publication of papers where research misconduct has occurred.

This includes but not limited to:

- plagiarism
- citation
- manipulation
- data falsification/fabrication

In no case shall a journal or its editors encourage such misconduct, or knowingly allow such misconduct to take place. In the event that a journal's publisher or editors are made aware of any allegation of research misconduct relating to a published article in their journal, the publisher or editor shall follow **COPE's** guidelines (or equivalent).

PUBLICATION ETHICS

A journal should have policies on publishing ethics. These should be clearly visible on its website, and should refer to:

- journal policies on authorship and contributorship
- how the journal will handle complaints and appeals
- journal policies on conflicts of interest/competing interests
- journal policies on data sharing and reproducibility
- journal's policy on ethical oversight
- journal's policy on intellectual property
- journal's options for post-publication discussions and corrections.

PUBLISHING SCHEDULE

The periodicity at which a journal publishes shall be clearly indicated.

ACCESS

The way(s) in which the journal and individual articles are available to readers and whether there are associated subscription or pay per view fees shall be stated.

GOVERNING BODY

Journals shall have editorial boards or other governing bodies whose members are recognized experts in the subject areas included within the journal's scope.

The journal's website should:

- show full names and affiliations of the journal's editorial board or other governing body.

EDITORIAL TEAM/CONTACT INFORMATION

Journals shall provide the full names and affiliations of the journal's editors on the journal website as well as contact information for the editorial office, including a full address.

COPYRIGHT AND LICENSING

The policy for copyright shall be clearly stated in the author guidelines and the copyright holder named on all published articles.

The journal's website should:

- show licensing information clearly described in guidelines.

Licensing terms shall be indicated on all published articles, both HTML and PDFs. If authors are allowed to publish under a Creative Commons license then any specific license requirements shall be noted. Any policies on posting of final accepted versions or published articles on third party repositories shall be clearly stated.

AUTHOR FEES

Any fees or charges that are required for manuscript processing and/or publishing materials in the journal shall be clearly stated.

This must be:

- in a place that is easy for potential authors to find prior to submitting their manuscripts for review

OR

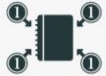
- explained to authors before they begin preparing their manuscript for submission.
- if no such fees are charged that should also be stated.

ARCHIVING

A journal's plan for electronic backup and preservation of access to the journal content shall be clearly indicated (for example, access to main articles via CLOCKSS or PubMedCentral).

This is in the event that a journal is no longer published.

REVENUE SOURCES



Business models or revenue sources shall be clearly stated or otherwise evident on the journal's website.

For example:

- author fees
- subscriptions
- advertising
- reprints
- institutional support
- organizational support

Publishing fees or waiver status should not influence editorial decision making.

ADVERTISING

Journals shall state their advertising policy if relevant including:

- what types of adverts will be considered
- who makes decisions regarding accepting adverts
- (online only) whether they are linked to content or reader behavior or are displayed at random.

Advertisements should not be related in any way to editorial decision making and shall be kept separate from the published content.

DIRECT MARKETING

Any direct marketing activities, including solicitation of manuscripts that are conducted on behalf of the journal, shall be appropriate, well targeted, and unobtrusive.

Information provided about the publisher or journal is expected to be truthful and not misleading for readers or authors.

Make one small change today to support Open Science

- Consider OA options/policies when choosing a publication venue
- Avail of the Library's OA Publishing Agreements or if you publish behind a paywall, archive the AAM in Research Repository UCD
- Create a Research Data Management Plan (dmp.ucd.ie)
- Add a Data Availability Statement to your publication/outputs
- Share your data through a disciplinary data repository or Zenodo
- If unable to share your data, deposit the metadata in a repository to increase its discoverability and make the data available on request.
- Where relevant, pre-register your research plan or publish a registered report
- Consider publishing your work as a preprint (Double-check with your chosen journal if preprints constitute prior publication)

- Choose an **appropriate** open licence for your research outputs
- Consider engaged research strategies, e.g. citizen science, to make your research more inclusive, accessible and impactful outside academia
- Negotiate & retain author rights with publishers so you can reuse your own work
- Evaluate research on its intrinsic merits not the publication venue
- If you’re on a journal editorial board, advocate for fair open access policies e.g. embargo lengths and open access charges
- Use Open Educational Resources as part of your teaching materials
- Avail of Open Research training opportunities

Open Research Skills & Training

Further Help & Information

UCD Library Open Access
libguides.ucd.ie/openaccess

UCD Library Research Data Management
libguides.ucd.ie/data

UCD Library Citizen Science
libguides.ucd.ie/Citizen_Science

Questions?

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