

Open Access in Programming Languages research

Gabriel Scherer

Partout, INRIA Saclay, France

OCaml

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What is meant by Open Access

Opinionated Values for Public Research

Publicly funded research:

- 0 Pick a problem of public interest.
- 1 Find out something new about it.
- 2 Let everyone know about what you found

Opinion: if (2) is not done well, we are not doing our job well.

Open Access (OA): for normal people

The “letting everyone know” step should be free.

Material costs (network access, hosting space, publishing work) exist, but they they should remain very small / neglectible.

(Cat videos can be hosted for free, why not research papers?)

Open Access: for scientific editors

Green Open Access: we agree to have you put your papers on arxiv.org
(did you need their agreement before? no!)

Gold Open Access: you give us a lot of money, then it's free for readers.

Diamond Open Access: what normal people call "Open Access".

More opinionated opinions

Closed Access (OA) journals/proceedings ask you to either:

- transfer copyright to them
- or give exclusive publishing agreement

Opinion: this is **unethical**, they are stealing your work (for free).

Opinion: Institutions doing this are **bad** – they may not notice.

Why it matters

Readers-pay is bad

Most research institutions pay for access to scientific journal/proceedings. Researchers and students working there typically have full access. . . so they don't feel the pain.

But:

- pre-PhD students commonly don't (I didn't have access until after my master degree)
- people not in the field don't; we are failing at (2)

“It's okay because papers are on our webpage anyway”:

- not always
- it's more work to find the paper (you suck at (2))
- outsiders don't know about it and how to look for them

Authors-pay is bad

Rich research institutions can pay APCs (Author Processing Charge) of \$1K or more (\$2K, \$3K common).

Not every research institution is rich.

Readers-pay schemes also come back to bite non-rich institutions.

Open Access in practice

Disclaimer

Open Access in practice depends **a lot** on the sub-field / sub-community.

Some parts of maths are “perfectly OA” (eg. Category Theory is doing really well).

Some parts of computer science are “only CA” (Closed Access).

My own field is in the middle, I'll talk about it briefly.

The ideal world

- completely free for readers
- platforms get paid a **fair** and **modest** price ($< \$100$) per paper
 - ▶ by the authors research funds, or
 - ▶ by their institutions, or
 - ▶ by sponsors (public institutions, industry)

Such ideal publishing platforms exist today. Examples:

- [LIPIcs](#) (hosts [FSCD](#))
- [EPTCS](#) (various workshop proceedings)
- [Episciences.org](#) (hosts [LMCS](#))

FSCD, Programming, LMCS

The ideal world.

Some SIGPLAN conferences (PACMPL)

A “Gold OA scheme” with APCs of \$400 (too high!), but SIGPLAN can pay for the authors if they insist.

Not ideal, but okay setup – while it lasts.

ETAPS

Springer Gold Open Access.

APCs are **secret** (secretly €225), paid with conference-registration prices.

Cheaper than ACM!

Most other events

Readers pay, authors give away their publishing rights.

Used to be the default \simeq 20 years ago.

Until 2021: CA by default, you **can** pay \$3K to make your paper OA.

After 2021: Gold OA, everyone pays \$1.5K. In theory Facebook could pay.

Opinion: **terrible** publishing practices.

Advice: stop submitting to JFP, send everything to LMCS instead.

(Note: their publisher, CUP, claims to be not-for-profit.)

Why?

Everybody loves OA

In 2014, SIGPLAN ran a survey on Open Access.

- *63% of respondents are willing to pay no more than \$100 per paper.*

- *73% of SIGPLAN call OA a moral imperative.*

- *When asked about a move away from the ACM to an unspecified OA publisher by 2017, 70% of SIGPLAN respondents were in favor.*

Yet, nothing changes

Most researchers are **not directly affected** by OA vs CA. . .
so they don't change anything.

Why are APCs so high?

Not-for-profit publishers claim that APCs reflect their costs, so are “fair” .

But most publishers:

- Provide no financial transparency,
- Are borderline dishonest about how they measure costs.
- Insist to do things we don't care about, and make us pay for it.
- Are extremely inefficient.
- Have no strong motivation to reduce those costs, because authors pay the APCs.

ACM DL reported costs: \$299 per article (just hosting, not editing/publishing). arXiv costs: \$14 per article.

See for example [an analysis of the ACM budget](#).

What can individual researchers do?

Put all your work on arxiv.org

Arxiv: long-term archival

A central long-term place to find your work.

Submit on arXiv:

- right after submission, for single-blind journals/conferences
- right after you reacted to reviews, for double-blind journals/conferences

Bonus service: email digests of all arXiv submissions.

Advice: write a script to prepare your arXiv submission for the paper. You will run it several times to update the online version.

Stop giving your work to Closed Access venues

We give power to scientific venues through our (free) work.

- 1 stop reviewing for Closed Access venues: nofreeviewnoreview.org/
(unless you submit there)
- 2 stop submitting to Closed Access venues (**if** comparable Open Access venues exist for this work!)

Note: this only works if there are enough Open Access venues to make this non-painful.

Give **gentle** feedback to scientific organizers

If a Closed Access conference is relevant to your work, ask them (publicly?) if an Open Access option is available.

(Refusing to do reviews is a good point to explain your position calmly.)

Help young Open Access venues

If a new Open Access venue get started, it will have less prestige at the beginning.

Send your work there when it's not too costly. (Not the one publication of a young PhD student!)

Thanks!

Discussion.