

Proposal for editorial boards about emancipating their journals

MathOA

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1 The proposal

We propose that editorial boards of journals ask their current publisher to agree immediately to the principles of Fair Open Access:

1. The editorial board or a nonprofit society owns the title of the journals.
2. All articles are published as Open Access (free to read, no subscriptions).
3. The authors own the copyright of their articles, and a standard Open Access license is used (we recommend CC-BY, but other options are available).
4. There are no payments by authors. All costs are subsidized by library consortia or other institutions, for anyone to read and be able to submit (i.e. one's subsidies cannot be restricted to one's own researchers).
5. APC (article processing charges) are low (at most a few hundred dollars/euros), in proportion to the work carried out by the publisher.

If a journal's existing publisher cannot or will not meet these conditions, the editorial board will give notice of resignation, and transfer the journal to a publisher conforming to the Fair Open Access Principles. (please see Technical Notes for more explanation).

In order to gauge community sentiment we have run a survey whose results so far (with over 1000 responses) are discussed in Appendix A. The survey results indicate that there is widespread appetite for the kind of changes we outline in this document.

2 Who is behind this proposal?

The following people (listed alphabetically) have been involved in intensive discussions leading to this proposal. They have considerable experience in running journals and switching them to open access. In addition to mathematics, other disciplines are being approached.

- Björn Brembs (Neurogenetics, Universität Regensburg)
- Saskia de Vries (project leader LingOA, previously director Amsterdam University Press)
- Martin Eve (literature/technology/publishing, Birkbeck, University of London; co-founder, Open Library of Humanities)
- Tim Gowers (mathematics, University of Cambridge; editor, *Discrete Analysis*)
- Alex Holcombe (psychology, University of Sydney)
- Danny Kingsley (Head of Scholarly Communication, University of Cambridge)
- Benoit Kloeckner (mathematics, Université Paris-Est – Créteil Val-de-Marne)
- Cameron Neylon (research communications, Curtin University, previously Advocacy Director, PLOS)

- David Roberts (mathematics, University of Adelaide)
- Johan Rooryck (linguistics, University of Leiden, Editor-in-Chief *Glossa* (formerly *Lingua*))
- Mike Taylor (paleontology, University of Bristol; software engineer, Index Data)
- Mark C. Wilson (computer science, University of Auckland; academic editor PeerJ Computer Science, previously editor *Online Journal of Combinatorics*)

The foundation MathOA, registered in the Netherlands and inspired by LingOA in linguistics, concentrates on mathematics journals. Its executive board includes Kloeckner, Wilson and Rooryck, in addition to Jos Baeten and Lieke Schulze (CWI Amsterdam), while Gowers is an advisory board member. See <http://mathoa.org> for more details. It is part of a wider Fair Open Access Alliance <http://fairoa.org> which currently includes LingOA and a sister organization PsyOA in psychology.

3 Pros and cons

The positive consequences to the suggested action are many; but we do not pretend that there are no drawbacks. As to the advantages:

- The research community will reclaim control of important journals. This will allow for faster innovation and improvement in journal processes, and align the interests of the journal with those of the community. Publishers and other service providers interested in being involved will have to compete to satisfy the users of the journal, not the other way around.
- All papers published will immediately be freely available to anyone with an Internet connection: no paywalls, no embargo periods, no discrimination against readers in poorer countries.
- The impact of the journals will in general increase: many studies show that open access journal articles attract higher citation rates. See SPARC's summary of published research on the open-access citation advantage: <http://sparceurope.org/oaca/>.
- Mathematics journals that have broken away from large commercial publishers are without exception doing better in bibliometric terms than their original versions, even if the original versions survive. See blog post by Mark C. Wilson: goo.gl/qxVc3y.
- Libraries will move closer to being able to cancel exorbitant subscriptions, freeing up money for the research community to use more productively than donating to shareholders of high-profit commercial organizations.

Our discussions with editors have also uncovered common concerns centering around workload, funding, reputation and legal issues, which we list in no particular order:

1. If the existing publisher does not agree to the demands of the editorial board, they will usually retain the rights to the title of the journal. This will require editorial boards to adopt a new journal name when moving to another publisher.
2. The publisher will then control access to the back issues of the journal.
3. The current contract of the Editors-in-Chief may contain a no-compete clause.
4. The entire process may require substantial work by the editors.
5. Readers and administrators may be confused about quality.
6. The ISSN of the renamed journal may not be the same that of the old; the format of DOIs for future articles may change; it may take several months or more for the new journal to be listed on MathSciNet, Scopus, and get an impact factor, etc.

7. The emancipated journal may not have enough resources to be sustainable.
8. Some publishers make cash payments to some editors of some journals, which may not continue under a more spartan arrangement.

We do not dismiss these concerns: we recognise that they are very real.

4 What we have done to address these concerns

1. Several mathematics journals have left commercial publishers and changed their name. The right way to do this is clear. A unanimous or almost-unanimous decision by the editorial board, advertised openly and widely to the community, makes it very likely that the original journal will cease production fairly quickly because of lack of editors and submissions. Authors usually agree to withdraw their papers from the old journal and submit them to the new one. Mathematical journals that have done this switch successfully include *Journal of Algorithms*, *Topology*, and *Topology and its Applications*. Their replacements (*ACM Transactions on Algorithms*, *Journal of Topology*, and *Algebraic & Geometric Topology*) are all highly regarded.

We have recent direct experience with *Journal of Algebraic Combinatorics*, which carried out the entire process outlined in this proposal within a period of months. The original title still exists but is rapidly declining into irrelevance, while the renamed journal *Algebraic Combinatorics* thrives. A larger list of journals that have declared independence is available.

2. Back issues are not a problem for any library subscribing to the usual “Big Deal” package such as Elsevier’s ScienceDirect, because they will continue to be offered. If the old journal ceases publishing, which is a likely outcome if the switch is done right, its back content should be available via the publisher (if the publisher folds, preservation services such as LOCKSS, CLOCKSS and Portico should hold copies of the content). For example, *Journal of Algorithms* ceased publication in 2009, and all issues are still included in ScienceDirect.

In some cases, if libraries eventually cut these packages, they may lose access to back issues of journals they no longer subscribe to, although many deals do allow access to be retained after cancellation. There are several ways to manage this. Currently, Elsevier provides free access to back issues of its mathematics journals from 4 years after publication date. Issues up to 2009 are freely distributable under the terms of the licence Elsevier had at the time of download (see <https://tqft.net/misc/elsevier-oa/>). The remaining few years, if considered absolutely necessary, may be able to be purchased (if funding permits). Many journals have a large fraction of their papers (in postprint — final submitted version after refereeing — form, at least) available on arXiv.org, in institutional repositories or other sites easily found via web search. Many journals including all published by Elsevier and Springer allow the postprint to be made publicly available on the web (see <http://www.sherpa.ac.uk/romeo/>). Interlibrary loan services can also provide articles fairly quickly. All of these are strictly legal ways to obtain access to specific articles. Other methods of course exist, such as asking authors for a copy of the published version if the free version on the web is not sufficient, sharing with colleagues online, etc.

3. The easiest way around no-compete contracts is for an interim EiC to be named for the new journal for a short time until the current EiCs can resume their position. This is exactly what was done with *Journal of Algebraic Combinatorics*.
4. On reputation: we acknowledge that some authors feel under pressure to publish in journals with high impact factors, and that they may thus not want to submit to new journals during the few years needed to get an impact factor. Our survey data shows that the community overwhelmingly care about editorial board research quality, peer review quality and ethical standards, and are for the most part very little concerned with impact factor or who publishes the journal: we thus expect sufficiently many good submissions for the journal to thrive through this IF-less window. The new incarnations of the mathematics journals mentioned above have a very high reputation: indeed, the reputation

and citation impact usually increase because there is no loss in quality of refereeing, editing and papers, while there is an improvement in ethics and often in efficiency. All these reputational issues are most easily dealt with by making a decisive switch backed by the research community, so that the true situation is made publicly very clear and can be explained easily to those outside the community. Informing such evaluators of the historical reputation of the journal is easily accomplished. There is a wider point — it is increasingly realized that researchers should *not* be evaluated on where they publish, but on the work itself (the Declaration on Research Assessment, which makes this explicit, has been signed by hundreds of funders, journals, universities and academies, and over 12000 individuals: <http://www.ascb.org/dora/>).

A few people have expressed concerns in the other direction: the old journal may lose reputation and researchers who published with it before the switch may be unjustly penalized. This seems extremely unlikely: it takes at least several years for reputations to change outside the community of users of a journal. The old journal will likely not cease publishing for a few years, and it will take even longer for its demise to be noticed by those outside the community. It is hard to see how a (by then no longer junior) researcher's reputation can change for the worse in this situation, unless that researcher has published very little since, the original papers have had little impact, and the evaluator is using up to date information on, for example, impact factors, yet is completely unaware of the change that has occurred at the journal.

5. The entire point of this project is to remove as many obstacles as possible from editors in order to minimize their work, and we have committed hundreds of hours already to this goal. While there is always some work involved in changing the status quo, we believe that many editors may experience a net gain of time rather soon after switching. Improved workflows, journal software customized to the journal, and volunteer help from the many supporters of such a shift should all contribute to this. In order to ensure the buck stops somewhere, we commit to helping each editorial board through the transition even at personal cost to ourselves.

Not all the work involved in switching the journal publisher is unpleasant. Experience with *Journal of Algebraic Combinatorics* has been that the editors have received widespread kudos from the community for their efforts.

6. Indexing is relatively straightforward. The most difficult is getting listed in databases such as Scopus and Thomson Reuters. However for an existing journal that is merely changing publisher (albeit with a possible name change) this is easier than for a completely new journal. Even in the latter case, as long as the journal is publishing regularly it is usually just a matter of filling in a form and waiting several months. We have experience with this and can assist if the lower-cost options are chosen, while the full service option we recommend will take care of all such matters.
7. The question of resources is an important one. We have been conscious not to over-promise. A key point is that large commercial publishers have profit margins that are so high that it is clear they are not spending much on each journal. Good editorial software, archiving, and journal website are extremely cheap. Serious copyediting is rare at commercial journals these days, although it can be expensive and so we recommend it be offered only when strictly necessary, and as funding permits. Many journals have run successfully for many years on almost zero budget and published good quality research: *Electronic Journal of Combinatorics*, *Journal of Computational Geometry*, and *Theory of Computing* to name only three. We favour an approach that allows for services to be transparently increased as funding increases, which we expect to happen as libraries reallocate their subscription expenditures (note that without journals such as yours helping to degrade the publishers' power to make large price increases every year, such reallocation will happen more slowly). *Journal of Algebraic Combinatorics* has moved (with a slight name change) to being published by Mersenne, with some support from Foundation Compositio Mathematica and the network of French mathematics libraries), which should allow for some copyediting if required.
8. On editorial payments: our survey shows that 43% of respondents are opposed to these on principle under any circumstances. Such payments do lead to a perceived (or real) conflict of interest. Of

course, administrative support is a different matter, and our recommended options allow for customized support at different funding levels. We are actively seeking funding to support emancipated journals, but we will prioritize copyediting and editorial assistance over editorial stipends. Our understanding is that editors-in-chief typically receive around \$10000 per year (possibly split between editors). This can be used for teaching buyout, for example. We believe that the best way to contribute to satisfaction of editors is via efficient journal software and some support services, paid directly by MathOA, and by helping these editors be recognized by the community and their institutions for the hard work they do. The editors-in-chief of Journal of Algebraic Combinatorics gave up their stipends when switching publisher.

5 Other help that we can offer

- We have substantial experience based on successfully carrying out the entire process with *Lingua*, which we are happy to make available. This includes advice on contracts from lawyers we have worked with, help with setting up a nonprofit foundation, etc.
- We will connect you with the Open Access publishers mentioned above, who are aware that we have contacted you; we are happy to act as go-betweens initially.
- We will personally supply some administrative assistance for editors if required, in addition to any funding for administrative assistance that we can get from funders.
- We continue to explore more funding options. In addition to MathOA, we are pursuing an analogue of the Open Library of Humanities for mathematics (OLM). Funding for the OLH is provided by library consortia and we expect a very similar model for OLM.
- We will help with publicity, which is key to success. For the switch to operate as cleanly as possible, the community of readers, authors and reviewers, not to mention grant funders and the wider public, must realise that the new journal is the continuation of the old one, and that the original journal (if it continues) is a serious journal in name only. We plan a substantial campaign involving press releases, social media, professional venues (e.g. Notices of the AMS), blogs, and coordinated presentations at conferences.
- We are happy to discuss any issues you feel are not adequately addressed in this document, by email, phone, Skype, in person if possible, etc. We have spent a few years planning to get to this point, and are committed to helping you succeed.

6 Further questions and answers

Q. Are you suggesting switching to an open access journal with publication charges?

A. No. We are recommending that the journal become fully open access with no reader fees. But this does not entail article processing charges for authors. For fields such as mathematics, these charges are controversial and we believe unnecessary. The lower cost options can be run for the foreseeable future on the donated funds we already have. Costs even for our “full-service” recommendation can be met by library consortia reallocating subscription funds along the lines of the Open Library of Humanities, and we are actively pursuing this, along with options for transitional funding. For example, a mathematics analogue of OLH is under detailed discussion.

Q. *Discrete Analysis* is an arXiv overlay journal, so it does not actually publish papers. Is that what you are suggesting for my journal?

A. Not necessarily: this is only one of several options. It would make no difference to the costs of *Discrete Analysis* if it hosted the papers on the journal’s website. The main area in which costs are cut is in copy-editing, paywall maintenance, legal costs, etc. Like many newer journals, DA provides a style file but otherwise takes the attitude that the final author submission after refereeing (“postprint”) is

usually perfectly adequate, as the widespread use of arXiv shows. Of course, paid copyediting can be included in any journal's offering as funding permits.

Switching publisher does, of course, give an editorial board a good reason to review its procedures and consider innovations that may improve the journal's quality. The model used by *Discrete Analysis* is just one possible way to run a journal. The key is to have a journal that is under control of the research community, not large for-profit corporations whose goals are not aligned with that of the field.

Q. What about the K-Theory debacle?

A. It is important to avoid duplicating the sad case of the journal *K-Theory*, which broke away from a commercial publisher only to be involved in a battle between editors over ownership (it was owned personally by the editor-in-chief, supposedly temporarily). This is part of the reason that we suggest each journal be owned by a nonprofit organization. After its false start, *K-Theory* became *Annals of K-Theory*, which is owned by a non-profit foundation (<http://www.ktheoryfoundation.org/>). Other options include ownership by a learned society. The key point is to ensure that publishers provide services to the journal and do not constrain efforts by the editors, reviewers and authors to improve it. Publishers should compete on quality and price to provide these services and always face the possibility of losing the contract to another provider. Disputes among editors should be solved systematically by a specified transparent process, to be clearly stated by the nonprofit organization owning the journal. We have some experience with these issues and are happy to help.

Q. Will switching my journal make any difference to the current publishing system?

A. In one sense, no: companies such as Elsevier and Springer will continue to sell their big bundles of journals at high prices. However, for a major mathematics journal (or better still journals – we are approaching editorial boards of many journals) to leave a major publisher would be a powerful signal that at least some people in the academic community have had enough. It would also weaken the negotiating position of the publishers, by providing an easy-to-follow example for other journals. It would be unlikely for any single journal switching to bring about a phase transition of the system, but it could play a very important part in accelerating the change that is so badly needed, leading to a broader transition within a few years instead of several decades. We aim to create rapid change in a small number of years, but that change will seem slow at first.

Q. How can you realistically provide professional journal services so much more cheaply than the charges of the major publishers suggest?

A. The major publishers have a large investment in old-fashioned systems which are much less efficient than those used by newer publishers. On top of that, many have large profit margins. Also, they provide and charge for some services that are of little or no value (such as managing payments from readers or authors, preventing non-authorized people from reading the articles, and arguably typesetting). Realistic estimates of the cost of a community-run open access journal range from near zero up to \$500 per article, less than 15% of the price offered by the traditional publishers.

Q. Why haven't more editorial boards already switched in the way you propose?

A. This is a good question. We believe that one reason is that there has never been a coordinated and determined attempt to facilitate such switching, which is precisely the point of the current project. Also, it is a classic collective action problem – it is much easier to adopt an innovative new model if many others are already doing it. The goal of our current initiative is to normalize this behaviour among our colleagues. Another obstacle may have been perceived lack of alternative publishing options, although good independent publishers using the subscription model, such as MSP of Berkeley, have been operating for a long time. Until recently it was not easy to run an open access journal because of possible lack of income stream, but this is no longer a serious obstacle.

A Survey results

The survey analysis was published in the European Mathematical Society Newsletter in March 2017, and raw data is available on Figshare:

https://figshare.com/projects/Survey_of_mathematical_publishing/16944.

Some key findings:

- 33% of respondents have acted as an editor, while 26% are PhD students or postdocs and 57% have a permanent position. Respondents are from many different countries and continents.
- The survey asks “How serious is the need for improvements to mathematical journals?” On a standard 1-5 Likert scale, where 5 means “almost all need serious work now” and 1 means “the status quo is completely acceptable”, 78% answered 3, 4, or 5. We interpret this as saying that there is considerable dissatisfaction about the state of journals.
- We included questions allowing respondents to name a journal that needs work, and explain why. Almost 200 journals were nominated, with Elsevier and Springer the most problematic publishers.
- Around 40% opposed any monetary payments to editors, around 40% want community election of editors, and 30% want term limits for editors. It is not our intention to push boards into changing their operating model, but we do believe that they should take notice of the wishes of the community they serve.

B What exactly we mean by “open access”

Everyone agrees that at a minimum, open access means that the articles are absolutely free to read to anyone anywhere, without any technical barriers such as requiring registration. Beyond that, there are different definitions. The three classic declarations on Open Access (Budapest, Berlin, Bethesda) all agree that OA also includes the right to re-use content: for example, the Budapest statement says “free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself”. To achieve this, the canonical licence to use is the Creative Commons Attribution (CC BY) licence.

However, some people feel anxiety about their work being used in ways they do not approve of, and especially of the possibility that others may make money from it without their getting a cut. For this reason, they may prefer a more restrictive licence such as Creative Commons Attribution-NonCommercial (CC BY-NC).

This licence prevents a large and fuzzy-bordered set of re-uses. The problem is that no-one knows exactly what is and isn't allowed under the terms “non-commercial” – it's a thing that can be decided only in court. For example, it may be that CC BY-NC materials can't be used in teaching in a university, because the university charges tuition fees – an outcome that surely is not what any scholar intends for their OA works. Recently a court in Germany ruled that any non-personal use counts as “commercial” even when no money changes hands: under that interpretation no CC BY-NC works could ever be used in any kind of teaching.

It's for these kinds of reasons that the people who have put the most thought into open-access licences have uniformly come down on the side of CC-BY. These include respected OA publishers (BioMed Central, PLOS, PeerJ), funding charities (Wellcome Trust, Gates Foundation), national bodies (RCUK) and more. As a result, journals which publish open access materials under more restrictive licences will not be acceptable venues for research funded by the Wellcome Trust, Gates Foundation, etc.

We therefore recommend the use of the CC BY licence for all open access journals. But, recognising that different groups may wish to make a different choice, we require only that an explicit statement is made about which licence is used, and strongly suggest that it be one of the widely recognised and understood Creative Commons licences. Ultimately, this is a choice for individual journals to make.

C Recommended publishing options

In addition to the “do-it-yourself” option of running PKP’s open-source software Open Journal Systems, we have investigated some in detail several publishing services companies and are very satisfied with a few options that offer different levels of service at different prices. Of course, there are other options which may well be equally acceptable, and more are becoming available each year. A key point of Fair Open Access is that journals are not locked in to a given publisher, and can export all data relatively easily if they decide to change publisher.

The options are (in increasing order of services provided) listed below.

1. Open Journal Systems (as used by *Electronic Journal of Combinatorics*, *Journal of Computational Geometry*). The software itself is free, and operating it provides complete freedom. The developers of the software, PKP, also offer Web hosting for under \$1000/year. Maintenance by academics can be difficult, however. We recommend this option only if there are editors with strong technical knowledge and interest.
2. Scholastica (as used by *Discrete Analysis* and *Internet Mathematics*). This company provides very nice editorial software and a website, for a flat charge of \$10/submission. All other services must be provided by others. Further information:
 - A short PDF overview of Scholastica:
<http://docs.scholastica.s3.amazonaws.com/Scholastica%20overview.pdf>
 - A 1-minute video about Scholastica: <https://vimeo.com/107074391>
 - Screenshots and videos in Scholastica’s editor guide:
<http://help.scholasticahq.com/customer/portal/articles/1228155>
3. Mersenne (as used by *Algebraic Combinatorics*) is supported by CNRS and Université Grenoble-Alpes where it is hosted. It can offer (for free, but capacity may be limited) a customized OJS editorial software with IT support, DOIs, plagiarism checking, with other services such as typesetting offered *à la carte*. Further information:
 - Mersenne site <http://www.mersenne.fr/en/about-mersenne/>
4. Ubiquity Press (as used by the Open Library of Humanities journals, including Glossa) is a spinoff company from University College London. It provides various levels of (excellent) service. The ones we guess to be most appropriate for most mathematical journals cost up to \$200/paper. Further information:
 - Ubiquity site <https://www.ubiquitypress.com>
 - Editor training video <https://vimeo.com/144631620> (password: JMSTraining)

D Who will pay?

Since the journals would be Open Access, there would be no payments by readers, and we exclude payments by authors on principle. However, there are still costs of publication to be met. Note that under the current subscription model, costs to the community are estimated to be over \$4000 per published paper, yet actual costs of production are far less, hence the huge profits of publishers.

For the OJS option, financial costs are few – the main cost is in time spent by editors. Hosting by a university is easy to achieve at no cost to the journal. The PKP-hosted option costs less than \$1000/year. With the Scholastica option, the direct cost of \$10 per paper is small enough to be absorbed by grants and donations: for example, Tim Gowers has received an anonymous donation allowing *Discrete Analysis* to run for several years. Any support staff costs would need to be added to the above figures, and to do this most efficiently the cost should be shared by several journals. Mersenne charges about 7 euros per page for copyediting, but basic costs for other items are subsidized completely by its sponsors. Ubiquity have

quoted us prices in the range of \$200–\$500 per article for a much higher service level including some staff support for editors (they also have a cheaper option with basic service).

In the long run, these kinds of costs will be paid by library consortia – an approach whose potential is being demonstrated by the very successful Open Library of Humanities, which is already supported by over 200 universities. In the meantime, we are arranging transitional funding. There are currently several applications for substantial funding; however, funders are more likely to fund if we can give them names of specific journals willing to take up their offer. Smaller amounts of funding, sufficient for each journal, can be arranged on a journal-by-journal basis, as we have done for *Algebraic Combinatorics*.