Dataset documentation

**Dataset:** Morrison, Heather, et al. 2019, "OA APC longitudinal study dataset 2019", [https://doi.org/10.5683/SP2/0DIPGE](https://doi.org/10.5683/SP2/0DIPGE), Scholars Portal Dataverse, V1

**Abstract**

This piece documents the 2019 OA APC longitudinal study dataset (link and citation above). The dataset includes data from diverse sources on the article processing charges (APCs) (including tendencies to charge or not charge) of overlapping sets of fully open access journals for 2010 and 2014 - 2019. Over 19,000 journals are included in the dataset. The rationale and research question are explained and the method documented in detail, included explanation of column headings and codes and data from other sources that is included is cited. Limitations of the research are explained along with alternative approaches used by other researchers. Acknowledgements highlight that this is a sub-project of the Sustaining the Knowledge Commons project funded through a SSHRC Insight Development Grant (2014 – 2016) and Insight Grant (2016 – 2021) and list the research assistants and collaborators who have contributed to the dataset. The dataset and its documentation will be made available for a formal open peer review process from Nov. 30, 2019 – Jan. 15, 2020. Comments and suggestions are welcome at any time.

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Rationale and research question

This paper presents context and documentation for a dataset collected and collated for an open access (OA) article processing charges (APC) longitudinal study, containing data from several sources for the years 2010 - 2019. This project is one of the lines of the Sustaining the Knowledge Commons (SKC) research program, funded by Canada’s Social Sciences and Humanities Research Council (Insight Development Grant, 2014 – 2016, Insight Grant, 2016 – 2021, Principal Investigator Heather Morrison). The overarching goal of SKC is to further our understanding of how to transition the underlying economics of scholarly publishing from the demand side (purchase and subscriptions) to supply side (support for production) to facilitate transition to a global open access knowledge commons, defined as the collective sharing of the knowledge of humankind, free for all to read and free for everyone qualified to contribute to.

It is important to acknowledge that there is more than one approach to achieving a global open access knowledge. The 2002 Budapest Open Access Initiative identified two main approaches to achieving open access: transitioning the publishing system, often called gold open access, and open access archives, often called green open access, through which authors deposit their work in archives. While the SKC research focuses on transition to gold OA, this does not imply a preference for this method. Indeed, SKC’s Morrison (2019) recently described the Pubfair framework, a green OA approach involving building a peer-review layer on OA archives, as “an excellent beginning for a needed profound transformation in how scholars work together and disseminate research”. The SKC project itself follows an open research process, illustrated by this open posting of a dataset and its documentation and inviting open peer review, as well as posting results-in-progress through research posts on the sustainingknowledgecommons.org blog.

In the OA publishing or gold context, it is a common myth that OA publishing is the same as the APC model. For example, the Directory of Open Access Journals (DOAJ) is a vetted list of fully open access journals (no embargo period, no hybrid journals including both OA and subscription content included). Of the 13,906 journals listed in the Directory of Open Access Journals (DOAJ) as of November 7, 2019, the following table from an advanced DOAJ search are the responses to the DOAJ journal application question “Does the journal have article processing charges (APCs)?” illustrates that 73% of journals included in DOAJ do not have publication fees.

<table>
<thead>
<tr>
<th>DOAJ: does the journal have APCs?</th>
<th># journals</th>
<th>% journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>No (10,134)</td>
<td>10,134</td>
<td>73</td>
</tr>
<tr>
<td>Yes (3,722)</td>
<td>3,722</td>
<td>27</td>
</tr>
<tr>
<td>No Information (50)</td>
<td>50</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>Total</td>
<td>13,906</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1: DOAJ journals without and with APCs
The number of journals is not the same as the number of articles; proponents of the APC approach will claim, possibly correctly, that APC journals publish more articles than non-APC journals. However, this does not change the evidence that APC is not the only business model for fully OA journals, and it is not even the model used by the majority of journals. Other models include sponsorship, for example by governments, universities, or scholarly societies.

The differences between these approaches may be more superficial than real. As explained in Morrison (2013), scholarly publishing is different from typical business in that the producers and consumers, from a macro perspective, are the same (scholarly authors, universities, research centers, government). In this sense the APC model can be described as an indirect subsidy or sponsorship model.

OA APCs are of interest to study in this transition for two reasons.

Average cost per article as key metric

First, the average cost per article is a key metric in understanding affordability of production-based systems. As Morrison (2013) reported, a global shift to open access journal publishing would be possible using existing funding sources, primarily academic and research libraries, and could be accomplished with substantial cost savings, but that the affordability of such a transition would depend on average cost per article, and that achieving affordability and/or cost savings would require paying careful attention to achieving cost efficiencies in the transition process. In this context, APC is useful as a metric regardless of business model (APC or non-APC). For example, if a commercial APC based publisher can achieve profits at a particular APC, this illustrates the feasibility of the approach and provides guidance for APC payers to set appropriate limits and budgets. This also allows governments, universities, and scholarly societies to estimate funding needed for sponsorship approaches, that is, by multiplying average article production by average APC to determine an upper price level and assess the cost-efficiency of other approaches to sponsorship. For example, as documented by Shi (2019, in progress), the average APC of UK-based new publisher Ubiquity Press, developed for the purpose of achieving cost-efficient professional open access publishing, is approximately 577 USD in 2019. This metric can be used as the basis for comparison with other publishers in similar circumstances, i.e. the developed world. An OA publisher with similar or lower costs or pricing is clearly cost-efficient; a publisher with higher costs or pricing may have room for further efficiencies. It is important to recognize that high costs or pricing can occur for a variety of different reasons, ranging from high financing costs for publishers that have gone through merger(s) and acquisition(s), high profit levels, legacy service-related costs such as dual print and electronic online publishing and/or providing access to extensive backfiles, technical processing costs such as XML requirements for medical journals’ inclusion in PubMedCentral, and publicity apparatus for newsmagazine-style journals such as Nature and Science.
APC trends per se

Although the APC model is not ubiquitous in fully OA journal publishing, it is a model used by a substantial number of journals, hence worthy of study in its own right. In the early days of OA journal publishing, some scholars, Morrison included, advocated for the APC model as a means to address the pre-existing seemingly intractable inelastic market for scholarly journals commonly referred to as the “serials crisis” as documented by the Association of Research Libraries (1989) and investigated by the UK Office of Fair Trade (2002). It was argued that APCs, paid by authors, would introduce transparency into the market, and that authors would seek competitive pricing. New OA journals and publishers can be set up without the legacy print-based costs of traditional subscriptions-based journal publishers such as print production, distribution, facilitating price competition. This is logical, however it is also logical to consider the possibility that when transitioning an inelastic market from demand to supply side the inelasticity would transition as well. A longitudinal approach is needed to observe trends over time.

Research question

What trends can be observed in APCs over time? Subquestions:

- Will competition emerge, or will an inelastic market transition or reappear?
- Will the percentage of journals that are charging and non-charging remain the same or change?
- Will fully OA journals continue to actively publish, cease, change to partially OA (hybrid) or non-OA journals?
- What are the OA publishing and charging / non-charging trends and practices of particular publishers? (Note: results of individual research project done by the SKC team can be found on the SKC research blog sustainingknowledgecommons.org)

Method

Data on APCs (charging or non-charging as well as amount) for fully OA journals for 2010 and 2013 - 2019 and was gathered from multiple sources using overlapping but different sampling and data collection methods and collated into a spreadsheet, OA Main 2019 Final. The method was documented in MPDI's new Data journal (Morrison et al., 2016). This paper is an updated and expanded version of the 2016 article, adding the introductory context section and including details on changes to data collection and reporting since 2016.

Major Sources for this Dataset

- **Publisher APC and APPC (article page processing charges) pricing information**
  - APC / APPC amounts or status information (non-charging, ceased, etc.) for 6,016 journals.
Sample of journals is determined by publishers that are, or were, in DOAJ during one of the sampling periods (2010, 2014, 2015, 2016, 2017, 2018, 2019). Journals and publishers that are removed from DOAJ are retained.

Sampling begins with an exclusive list of fully open access, active journals, but to facilitate tracking of status of journals over time, journals that are no longer active, OA or fully OA are retained in the sample.

Larger publishers: all fully open access journals are included, whether listed in DOAJ or not.

Smaller publishers are reflected in a sample determined by publisher size in the 2014 sample (see Morrison et al., 2015).

Data is obtained from the publisher’s website on the data of data collection (see relevant column), or, if title is not found, through a Google title search.

Data represents our best estimate of the “regular” price for an article, or regular page charge, for a research or review article of typical length, not factoring in submission fees or pricing variations, in the “local” currency. Where multiple currencies exist, we aim to select the currency for the country of publication, what appears to be the pricing for local authors, or the currency used in the previous year to facilitate tracking of changes over time.

Additional data considered reasonably current is copied from DOAJ metadata (8,588 journals) based on a random sample of 100 journals (Pashaei & Morrison, 2019). We looked up the APC information on the publisher’s website for the sample and compared with DOAJ 2019 sample and found that 93% of the journals matched exactly or substantially (substantial = same information, different approach to description e.g. SKC “no cost found”, DOAJ “no information”).

Additional data is drawn from Crawford’s 2018 dataset (Crawford, 2019) for 1,126 journals. It is important to note that Crawford only lists pricing in USD.

APC or APPC information from the 3 sources is available for 15,730 journals.

Information was not sampled / available for all journals in 2019. The total number of journals listed is 19,821. Non-sampled journals are retained to facilitate further research by other researchers by providing historical information.

- **Directory of Open Access Journals (DOAJ) downloadable metadata:**
  - May 7, 2014: 2,306 journals. This is a sample of the 9,709 journals included in DOAJ at that point in time. DOAJ metadata as of May 2014 did not include information on publication fee, reflecting a period of platform transition for DOAJ.
  - February 1, 2016: 11,050 journals. Note that the title column was incorporated into the main title column. Journal title changes are included in notes fields.
  - January 31, 2018: 10,967 journals.
o January 31, 2019: 12,432 journals.

DOAJ metadata notes:

o For an explanation of DOAJ metadata from 2016 - 2019, see the DOAJ Application Form – available at https://www.doaj.org/application/new as of Nov. 8, 2019. The metadata represents responses to the application form questions filled out by journals or their representatives.

o DOAJ 2014 metadata predates the 2016 application process; most, but not all, metadata is the same. As noted above, publication fee information is absent.

o The original DOAJ metadata includes numerous URLs for information pages for each journal, to facilitate review of applications by volunteers. To reduce file size, almost all URLs except for the journal home page URL are omitted.

o DOAJ constantly adds journals and removes journals that no longer meet the inclusion criteria. For this reason, not all journals in more recent DOAJ metadata sets are included in older DOAJ metadata sets.

o DOAJ inclusion criteria are explained in the DOAJ FAQ. In brief, journals must be fully open access (not hybrid or partially subscription journals, no embargo), practice quality control, and be active (minimum 5 peer reviewed articles per year).

• Journals that are removed from DOAJ are not removed from OA main.

• **Crawford (2019) Global Open Access Journals (GOAJ)**
  o APC data (non-charging / charging; fee in USD for charging journals) for journals listed in DOAJ 2013 – 2018 plus article counts for each journal

• Solomon & Björk (2012) 2010 APC and journal article count for a sample of APC charging journals listed in DOAJ as of 2010

**Data – detailed explanation**

A list of column headings with explanation can be found in Appendix A. The text of column headings is used in lieu of letters as downstream re-analyzers will likely want to move columns around to facilitate analysis.

The “main” data column is called 2019 APC publisher website original currency with a similar title for previous years. This column contains data for every journal sampled, whether by the SKC team or through transfer of data from DOAJ or Crawford. The title of the column reflects the original intent of the project, to focus on APC amounts and trends. However, we have it convenient to always include data for every sampled journal in this column.
Following are the most common codes (10 or more journals):

2019 APC original currency

no publication fee

Clear indication on publisher website that there is no publication fee, or "No" to question in DOAJ on whether the journal has an APC. See also F (WC), /

APC amount

Amount, in original currency, when there is an APC. Regular price for a research or review article. APC based journals that indicate intention to charge in future are 0 if no amount is given, or the amount if provided. See also APPC, cost not specified, charge per word, and by publishing unit, for total of charging journals.

title not found

Obvious.

ceased publication

We were not able to determine whether or not there is a fee. See also "No information" (from DOAJ) and "cost not specified".

no cost found

Indicates change in title, provides current title.

Predecessor...

Article Page Processing Charge. See 2019 APPC pub website for amount in original currency.

APPC

The journal has a submission fee but no publication fee. No amount given as we do not track submission fees.

submission fee no publication fee

No publication fee, from Crawford data. This is not included in "no publication fee" to avoid potential confusion from differences in analytic processes.

F (WC)

Publisher website indicates APC, but amount is not given.

cost not specified

Journal includes both OA and subscription-based content. Amount not given as we do not include hybrid journals. May include year (hybrid 2019).

hybrid

Response to DOAJ question about whether article charges APC. See also cost not found.

No Information

Examples: when different journal pages indicate charging and non-charging status, or given different APCs. May reflect transition at journal and imperfect web updating.

contradictory information

Appendix B provides the full list of codes with frequency in 2019 in order of frequency.
Appendix C provides the full list of codes in 2019 in alphabetical order.

Columns to the right of “2019 APC original currency” provide the currency in standard 3-character code, the currency conversion to USD as of June 30, 2019, according to XE currency converter, the APC amount in USD, APPC information following the same format, the date of data collection in the format yearmonthday (no spaces), provenance of data (e.g. publisher’s website, DOAJ), publisher type (where analyzed), and notes. Earlier years follow the same basic format.

**Publisher type (where analyzed)**

Occasionally we analyze publisher types, particularly in the case of larger publishers that appear to have a mix of straightforward commercial journals and commercial / not-for-profit partnerships as it appears that APC tendencies vary by type. For example, commercial / not-for-profit partnerships seem to be associated with a large number of non-charging journals.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>Commercial. Used Only If Commercial Nature Confirmed, e.g., through Reading Journal “About” Page, Notes about a Registered or Limited Liability Company on the Contact Page, etc.</td>
</tr>
<tr>
<td>g</td>
<td>Government</td>
</tr>
<tr>
<td>np</td>
<td>Non-profit</td>
</tr>
<tr>
<td>.com</td>
<td>Nothing known about publisher type, has .com in URL</td>
</tr>
<tr>
<td>.org</td>
<td>Nothing known about publisher type, has .org in URL</td>
</tr>
<tr>
<td>s</td>
<td>Society (or association)</td>
</tr>
<tr>
<td>u</td>
<td>University</td>
</tr>
<tr>
<td>un</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

**Mixed types**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>c/s</td>
<td>Commercial/society partnership</td>
</tr>
<tr>
<td>c/u</td>
<td>Commercial/university partnership</td>
</tr>
<tr>
<td>un</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

**Limitations and alternative approaches**

**Alternative approaches**

There are at least 4 different approaches to the question “how much is an APC”?

- List or asking price
- Amount paid (payer’s invoice approach)
- Amount negotiated through transformative OA / subscriptions agreements
- Potential revenue
List or asking price

One of the major limitations of the SKC project is that it is limited to publisher list price, as stated on the publishers’ website or as recorded in DOAJ. The list or asking price of an APC may differ from what is actually paid, just as the list price for a house or a car can be different from what the purchaser actually pays. Even with respect to list price per se, as the SKC team documented with the 2014 sample (Morrison et al, 2015) “the vast majority of journals charging APCs (80%) were found to offer one or more variations on pricing, such as discounts for authors from mid to low income countries, differential pricing based on article type, institutional or society membership, and/or optional charges for extras such as English language editing services or fast track of articles”. Crawford (2019), Solomon & Björk (2012) and DOAJ data also reflect list or asking price.

Amount paid (payer’s invoice approach)

APCs may be paid by individual authors or institutional payers (libraries, universities, research organizations, funders or government). There are a number of reasons why the amount paid may differ from list price. As noted above, more than 80% of journals offer one or more variations on the APC. An individual APC payment may reflect the list price or one of these variations; for example, institutional payments may reflect an institutional membership price. In addition, pricing may be negotiated either by individual authors or by institutional payers. The latter may benefit from the clout of group purchase. This is similar to universities’ negotiating favorable deals for software for all faculty members and students. APC payment reports may also reflect variations based on inclusion or exclusion of taxes.

There are many examples of reporting of APC payments. The most ambitious to date is the OpenAPC project of the Open Knowledge Foundation (n.d.). As of Nov. 12, 2019, OpenAPC collates data on APC payments by 24 different institutions. The number of institutions in total is 248, however this appears to reflect sub-units; the figure of 24 is based on presentation of data on the main page. A total of 85,023 payments are included. 98% of the payments (83,506 APCs) are made by EU-based funders. The mean APC is 1,935 EUR.

Amount negotiated through transformative OA / subscriptions agreements

The Max Planck Digital Library (n.d.) maintains a registry of transformative agreements that combine payments for OA and subscriptions, sometimes called offsetting agreements or “read and publish” because the rights covered include rights for associated authors to publish open access and associated readers to read the works covered by the agreement. A glance at the list of agreements reveals the large, typically national scope of such agreements. In some cases, the details of the agreement have been disclosed and published. For example, agreements have been made by a German national consortium, the French Couperin consortium, the California Digital Library and the U.K.’s Joint Information Systems Committee (JISC), to name a few. Each agreement is with a specific publisher.
Potential revenue

The three approaches listed above represent research questions from the payer’s perspective, i.e. how much would an APC based approach to OA cost. The for-profit publishing industry is interested in another research question, the impact on their bottom line. The abstract of a recent report by Outsell (McShea, 2019) illustrates this approach as the report “models the potential revenue implications of OA on the STM journal publishing sector, presenting our forecast for 2020”. Unfortunately, only the abstract appears to be available as open access.

Studying a moving target

Researching a topic like APCs is impacted by the changing market and the actions of various players in the market. New journals are started, others ceased publication, changes in status from non-charging to charging and vice versa are common, and price changes are frequent.

As funders and institutions indicate a willingness to pay APCs, this can drive up prices. The negotiations of large players such as large institutions and consortia can lead to increases in list price if publishers are seeking room to manoeuvre in negotiations. That is, it is much easier to offer a substantial discount from a list price if the list price is much higher than the cost of production. It is important to understand this context to analyze and interpret results.

Using These Data (Licensing)

This dataset is derived from several sources, including the DOAJ metadata (which has its own license terms posted on the DOAJ website), other data screen-scraped from DOAJ, factual data gathered from publisher’s websites, 2015 data provided by Walt Crawford, 2010 data provided by Solomon and Björk, and our team’s analysis. If you are making use of this dataset as a whole, please cite: [insert URL after data posted]. If you are drawing from the other sources, please cite the other sources. There is no license for the dataset as a whole, as individual elements are derived from different sources, which may have their own terms. When posting your own dataset, please include at minimum the journal title and ISSN as these are key matching points for merging together different datasets.

Acknowledgements

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Mondésir, Arbia Ouerghi, Hamid Pashaei, Jihane Salhab, Anqi Shi, Snehita Singh, César Villamizar, Victoria Volkanova, Sara Wheatley

References


Open Knowledge Foundation (n.d.). OpenAPC. https://treemaps.intact-project.org/apcdata/openapc/


Appendix A: Explanation of column headings

Note: the base organization of columns reflects a combination of project history and the most common analysis performed, comparison of APC data over the years. For this reason, column order is not intuitive, e.g. data from Solomon & Björk (2012) is split into 2 sections. Prior to analyzing data, downloading and maintaining the original spreadsheet but making a copy to facilitate the creation of data subsets and re-ordering of columns. This is why column headings are provided in text rather than column order. To find a column, copy / paste the wording exactly as is and search by row.

<table>
<thead>
<tr>
<th>Column heading</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher - from publisher website or DOAJ 2018 (or older / newer if not listed in 2018)</td>
<td><strong>The publisher name is generally taken from the latest DOAJ, or the publisher’s website (copied from DOAJ if the publisher is in DOAJ). Occasionally publisher names are standardized to facilitate data collection and analysis.</strong></td>
</tr>
<tr>
<td>Journal title DOAJ 2019 or publisher website or prior versions of DOAJ</td>
<td><strong>The journal title is generally taken from DOAJ and not corrected if there are minor errors in DOAJ (e.g. space before publisher’s name) to facilitate DOAJ merger year-by-year by title. If the title is not in the latest DOAJ, older versions of DOAJ and/or the title as per the publisher’s website is listed.</strong></td>
</tr>
<tr>
<td>Journal URL DOAJ 2019 or DOAJ 2016</td>
<td><strong>CAUTION is recommended in using this data as legitimate journals are occasionally subject to takeover by website trolls, phishing scams, etc. We remove these URLs when found but do not necessarily check; for example, we collect APCs from publisher websites without using these URLs. Journal URLs are generally taken from DOAJ, the most current version; rarely, we correct URLs based on publisher website information.</strong></td>
</tr>
<tr>
<td>2019 APC publisher website original currency</td>
<td><strong>APC as listed on the publisher website or from DOAJ or Walt Crawford. Note that there are frequent variations in APC pricing on publisher website. We aim for the closest equivalent to regular price for a research article for the primary target author group, e.g. local authors. This is our main data column and will have data for every journal for which we have gathered data (qualitative or quantitative. Note that we do not sample every journal every year; lack of data in this column indicates that a journal was not sampled that year. See the list of APC codes for an explanation of the data and note that amounts in this column are in different currencies.</strong></td>
</tr>
<tr>
<td>2019 APC original currency 209 06 30 currency conversion rate XE</td>
<td><strong>Currency conversion rate as of June 30, from XE currency converter</strong></td>
</tr>
<tr>
<td>2019 APC in USD (values)</td>
<td><strong>APC converted to USD using June 30 XE currency conversion</strong></td>
</tr>
<tr>
<td>Year</td>
<td>APC Type</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>2019</td>
<td>APPC pub website</td>
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<td>original currency</td>
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<td>06 30 currency conversion rate XE</td>
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<td></td>
<td>in USD (Value)</td>
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<tr>
<td></td>
<td>Date of data collection</td>
</tr>
<tr>
<td></td>
<td>Provenance of 2019 APC data</td>
</tr>
<tr>
<td></td>
<td>Publisher Type 2019 (where gathered )</td>
</tr>
<tr>
<td></td>
<td>2019 notes</td>
</tr>
<tr>
<td>2018</td>
<td>APC publisher website</td>
</tr>
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<td></td>
<td>original currency</td>
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<td></td>
<td>06 30 currency conversion rate XE</td>
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<td>in USD (values)</td>
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<td>Date of data collection</td>
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<td></td>
<td>Provenance of 2018 APC data</td>
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<td></td>
<td>Publisher Type 2018 (where gathered )</td>
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<tr>
<td></td>
<td>2018 notes</td>
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<tr>
<td>2017</td>
<td>APC publisher website</td>
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<tr>
<td></td>
<td>original currency</td>
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<tr>
<td></td>
<td>June 30 APC in USD (values) based on XE conversion rate</td>
</tr>
<tr>
<td></td>
<td>Date of data collection</td>
</tr>
<tr>
<td></td>
<td>Provenance of 2017 APC data</td>
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<tr>
<td></td>
<td>Publisher Type 2017 (where gathered )</td>
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<tr>
<td></td>
<td>2016 notes</td>
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<tr>
<td>2016</td>
<td>APC publisher website</td>
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<td></td>
<td>original currency</td>
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<td></td>
<td>June 30 APC in USD based on XE conversion value</td>
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<tr>
<td></td>
<td>Date of data collection</td>
</tr>
<tr>
<td></td>
<td>Provenance of 2016 APC data</td>
</tr>
<tr>
<td></td>
<td>Publisher Type 2016 (where gathered )</td>
</tr>
</tbody>
</table>
2016 APPC pub website
2016 APPC original currency
2016 APPC in USD (Value)
Provenance of 2016 APC data if not SKC team lookup
Publisher Type 2015 (historical)

2015 APC
2015 APC Original Currency
2015 APC USD
2015 Article Page Processing Cost (APPC)
2015 APCC Original Currency
2015 APPC USD

2014 05 14 APC
2014 05 14 APC Original Currency
2014 05 14 APC USD
2014 05 14 Article Page Processing Cost (APPC)
2014 05 14 APCC Original Currency
2014 05 14 APPC USD

2013 12 APC
2013 12 APC Original Currency
2013 12 APC USD
2013 12 Article Page Processing Cost (APPC)
2013 12 APCC Original Currency

2019 APPC pub website
See 2019 APC original currency
See2019 APPC in USD (Value)
Where data comes from if not publisher website, i.e. indicates data from DOAJ or WC
See Publisher Type 2019 (where gathered )
INCOMPLETE full sample. See 2019 APC publisher website original currency. SAMPLING NOTE: this was our first attempt at a full sample, including all DOAJ journals from 2014. At the end of the year, we found that De Gruyter as per the 2015 December file was the third-largest publisher in DOAJ by number of journals, but not listed in our sample. For this reason, this is considered an incomplete full sample.

See 2019 APC original currency
APC converted to USD using June 30 XE currency conversion
See 2019 APC original currency
See2019 APPC in USD (Value)
SAMPLING NOTE: this is a sampling study of DOAJ journals charging APCs in 2014; results are reported in the Morrison et al. 2014 article in Publications. See 2019 APC publisher website original currency for details.

See 2019 APC original currency
APC converted to USD using June 30 Bank of Canada currency conversion or national bank
See 2019 APC original currency
See2019 APPC in USD (Value)
PILOT data: note that this is a small sample from a pilot study designed to develop procedures for the longitudinal APC study. This is our main data column and will have data for every journal for which we have gathered APC data or decided to use recent DOAJ or Walt Crawford data. Note that we do not sample every journal every year; lack of data in this column indicates that a journal was not sampled that year. Please see the list of APC codes for an explanation of the data and note that amounts in this column are in different currencies.

See 2019 APC original currency
APC converted to USD using June 30 Bank of Canada currency conversion or national bank
See 2019 APC original currency

15
APC 2010 S.&B.
currency 2010 S.&B.
USD 2010 S.&B.

Publisher DOAJ 2016 02 (this is the original DOAJ publisher list for 2016. See "Publisher DOAJ 2016 02 or publisher website or WC for complete list)
Alternative title DOAJ 2016 02
Journal ISSN (print version) DOAJ 2016 02
Journal EISSN (online version) DOAJ 2016 02
Society or institution DOAJ 2016 02
Platform, host or aggregator DOAJ 2016 02
Country of publisher DOAJ 2016 02
Journal article processing charges (APCs) DOAJ 2016 02
APC information URL DOAJ 2016 02
APC amount DOAJ 2016 02
Currency DOAJ 2016 02
Journal article submission fee DOAJ 2016 02
Submission fee URL DOAJ 2016 02
Submission fee amount DOAJ 2016 02
Submission fee currency DOAJ 2016 02
Number of articles publish in the last calendar year DOAJ 2016 02
Journal waiver policy (for developing country authors etc) DOAJ 2016 02

Historical publisher data retained as a check and for tracking publisher changes. Based on DOAJ 2016 metadata.
See DOAJ website for an explanation of metadata.

APC data for a sample of DOAJ journals charging APCs as of 2010; note that non-charging journals are not included. Data provided by Solomon and Björk - see their codebook for an explanation of data and the 2012 JASIST article for results. Note that columns for Solomon and Björk data are not collated, in order to focus on APC price data, the object of our study. Additional columns are available and can be found by searching for S.&B.
Currency in standard 3 character code.
APC 2010 S.&B. converted to USD.
Digital archiving policy or program(s) DOAJ 2016 02
Archiving: national library DOAJ 2016 02
Archiving: other DOAJ 2016 02
Journal full-text crawl permission DOAJ 2016 02
Permanent article identifiers DOAJ 2016 02
Journal provides download statistics DOAJ 2016 02
First calendar year journal provided online Open Access content DOAJ 2016 02
Full text formats DOAJ 2016 02
Keywords DOAJ 2016 02
Full text language DOAJ 2016 02
Review process DOAJ 2016 02
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Does this journal allow unrestricted reuse in compliance with BOAI? DOAJ 2016 02
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Author holds copyright without restrictions DOAJ 2016 02
Author holds publishing rights without restrictions DOAJ 2016 02
Publishing rights information URL DOAJ 2016 02
DOAJ Seal DOAJ 2016 02
Tick: Accepted after March 2014 DOAJ 2016 02
Added on Date DOAJ 2016 02
Subjects DOAJ 2016
Publisher DOAJ 2014

See DOAJ website for an explanation of metadata.
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NOTE DOAJ metadata change took place between 2014 and 2016.
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<th><strong>Title</strong></th>
<th>DOAJ 2014</th>
<th>See DOAJ website for an explanation of metadata. NOTE DOAJ metadata change took place between 2014 and 2016.</th>
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JW 2010 S.&B. See APC 2010 S.&B.
Publisher DOAJ 2017 See DOAJ website for an explanation of metadata. Note that most
Journal title DOAJ 2017 URLs except journal URL have been removed.
Journal URL DOAJ 2017 See DOAJ website for an explanation of metadata. Note that most
Alternative title DOAJ 2017 URLs except journal URL have been removed.
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Society or institution DOAJ 2017 See DOAJ website for an explanation of metadata. Note that most
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Archiving: national library DOAJ 2017 See DOAJ website for an explanation of metadata. Note that most
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<td>Number of articles publish in the last calendar year DOAJ 2018</td>
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<td><strong>Author holds copyright without restrictions DOAJ 2018</strong></td>
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Author holds publishing rights without restrictions DOAJ 2019

DOAJ Seal DOAJ 2019

Tick: Accepted after March 2014

DOAJ 2019

Added on Date DOAJ 2019

Subjects DOAJ 2019

Journal (WC 2017)

URL (WC 2017)

Publisher (WC 2017)

Start (WC 2017)

Code (WC 2017)

APC (WC 2017)

Note (WC 2017)

Sub (WC 2017)

Seg (WC 2017)

Country (WC 2017)

Reg (WC 2017)

PubCat (WC 2017)

D16? WC 2017

Vis (WC 2017)

APC (WC 2017) Last year keep to compare

Journal GOAJ4

URL GOAJ4

See DOAJ website for an explanation of metadata. Note that most URLs except journal URL have been removed.

See Crawford Global Open Access Journals

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See Crawford Global Open Access Journals

See Crawford Global Open Access Journals

See Crawford Global Open Access Journals
Appendix B: APC codes in descending order of frequency

2019 APC original currency

no publication fee
Clear indication on publisher website that there is no publication fee, or "No" to question in DOAJ on whether the journal has an APC. See also F (WC),/
Amount, in original currency, when there is an APC. Regular price for a research or review article. APC based journals that indicate intention to charge in future are 0 if no amount is given, or the amount if provided. See also APPC, cost not specified, charge per word, and by publishing unit, for total of charging journals.

APC amount
Obvious.

title not found
Obvious. Sometimes includes year. See also CLOCKKS trigged, also indicates ceased journal.

ceased publication
We were not able to determine whether or not there is a fee. See also "No information" (from DOAJ) and "cost not specified".

no cost found
Indicates change in title, provides current title.

Predecessor...
Article Page Processing Charge. See 2019 APPC pub website for amount in original currency.

APPC
The journal has a submission fee but no publication fee. No amount given as we do not track submission fees.

submission fee no publication fee
No publication fee, from Crawford data. This is not included in "no publication fee" to avoid potential confusion from differences in analytic processes.

F (WC)
Publisher website indicates APC, but amount is not given.

cost not specified
Journal includes both OA and subscription-based content. Amount not given as we do not include hybrid journals. May include year (hybrid 2019).
<table>
<thead>
<tr>
<th>Issue Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Information</td>
<td>Response to DOAJ question about whether article charges APC. See also cost not found. Examples: when different journal pages indicate charging and non-charging status, or given different APCs. May reflect transition at journal and imperfect web updating.</td>
</tr>
<tr>
<td>contradictory information</td>
<td></td>
</tr>
<tr>
<td>charge per word</td>
<td>Obvious.</td>
</tr>
<tr>
<td>inactive</td>
<td>Inactive (sometimes with year or not on OA journals list). Obvious. Note that activity is not regularly checked, this is only when glaringly obvious.</td>
</tr>
<tr>
<td>Risky URL</td>
<td>Journal URL leads to suspicious site, for example webpage troll (takes over URL and offers it for sale).</td>
</tr>
<tr>
<td>merged and transferred</td>
<td>Merged (with details) - when two journals become one.</td>
</tr>
<tr>
<td>not open access</td>
<td>Obvious.</td>
</tr>
<tr>
<td>URL does not correspond to journal</td>
<td>URL leads to a website other than the journal.</td>
</tr>
<tr>
<td>duplicate DOAJ 2019</td>
<td>Journal title is duplicated in DOAJ 2019; both kept to facilitate inclusion of future DOAJ datasets.</td>
</tr>
<tr>
<td>membership required</td>
<td>Author must be a paid member of society, but there is no publication fee.</td>
</tr>
<tr>
<td>by publishing unit</td>
<td>Example: charge per character.</td>
</tr>
<tr>
<td>discontinued 2012; academic irregularites</td>
<td>Discontinued due to academic irregularities.</td>
</tr>
<tr>
<td>highly variable</td>
<td>Pricing information indicates an exceptionally high level of variability, making it impossible to identify &quot;regular APC for research or review article&quot;.</td>
</tr>
<tr>
<td>hybrid / inactive</td>
<td>See hybrid and inactive.</td>
</tr>
<tr>
<td>in transition</td>
<td>Journal is in a transitional phase, currently inactive but planning to publish in future.</td>
</tr>
<tr>
<td>negotiated with conference organizers</td>
<td>Obvious.</td>
</tr>
<tr>
<td>no cost found / cannot read</td>
<td>Cannot read the language.</td>
</tr>
<tr>
<td>not a peer reviewed journal</td>
<td>Obvious.</td>
</tr>
<tr>
<td>Publication charge link leads to virus alert</td>
<td>Obvious; see also Risky URL.</td>
</tr>
<tr>
<td>Russian</td>
<td>Cannot read.</td>
</tr>
<tr>
<td>title / publisher site not found</td>
<td>Obvious.</td>
</tr>
<tr>
<td>title not found / problem URL</td>
<td>Obvious; see also Risky URL.</td>
</tr>
</tbody>
</table>
Journal website indicates transfer to a new publisher that is not named.

Appendix C: APC codes in alphabetical order

2019 APC original currency

Amount, in original currency, when there is an APC. Regular price for a research or review article. APC based journals that indicate intention to charge in future are 0 if no amount is given, or the amount if provided. See also APPC, cost not specified, charge per word, and by publishing unit, for total of charging journals.

APC amount

APPCC Article Page Processing Charge. See 2019 APPC pub website for amount in original currency.

by publishing unit

Example: charge per character.

ceased publication

Obvious. Sometimes includes year. See also CLOCKKS trigred, also indicates ceased journal.

charge per word

Obvious.

contradictory information

Examples: when different journal pages indicate charging and non-charging status, or given different APCs. May reflect transition at journal and imperfect web updating.

cost not specified

Publisher website indicates APC, but amount is not given.

discontinued 2012;
academic irregularities

Discontinued due to academic irregularities.

Journal title is duplicated in DOAJ 2019; both kept to facilitate inclusion of future DOAJ datasets.

duplicate DOAJ 2019

No publication fee, from Crawford data. This is not included in "no publication fee" to avoid potential confusion from differences in analytic processes.

F (WC)
Pricing information indicates an exceptionally high level of variability, making it impossible to identify "regular APC for research or review article".

Journal includes both OA and subscription-based content. Amount not given as we do not include hybrid journals. May include year (hybrid 2019).

See hybrid and inactive.

Journal is in a transitional phase, currently inactive but planning to publish in future.

Inactive (sometimes with year or not on OA journals list). Obvious. Note that activity is not regularly checked, this is only when glaringly obvious.

Author must be a paid member of society, but there is no publication fee.

Merged (with details) - when two journals become one.

We were not able to determine whether or not there is a fee. See also "No information" (from DOAJ) and "cost not specified".

Cannot read the language.

Response to DOAJ question about whether article charges APC. See also cost not found.

Clear indication on publisher website that there is no publication fee, or "No" to question in DOAJ on whether the journal has an APC. See also F (WC)/

Obvious.

Obvious.

Indicates change in title, provides current title.

Obvious; see also Risky URL.

Journal URL leads to suspicious site, for example webpage troll (takes over URL and offers it for sale).

Cannot read.
The journal has a submission fee but no publication fee. No amount given as we do not track submission fees.

Obvious.

Obvious.

Obvious; see also Risky Url.

Journal website indicates transfer to a new publisher that is not named.

URL leads to a website other than the journal.

Version 1.2. Nov. 20, 2019. HM++