

Screening VABB-SHW version XI for publications in predatory journals

Report to the Authoritative Panel
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1 Introduction

During the summer of 2018, Flanders, like many other regions and countries, experienced considerable media upheavals around the issue of open access (OA) publishers whose standards and ethics can be questioned. The periodicals that fall under this claim have been called *predatory* journals. For the sake of simplicity, we will use the same ‘predatory’ moniker but note that it has been criticized (Eriksson & Helgesson, 2018). In 2019 the following definition of predatory journals and publishers was proposed: “Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices.” (Grudniewicz *et al.*, 2019, p. 211).

As a consequence of the appearance of predatory journals, lists of such journals and publishers have been created. These negative lists (also referred to as ‘blacklists’) contain names of publishers and titles of journals that ought to be avoided because of their questionable standards. This practice, however, has been criticized (see for example Bloudoff-Indelicato, 2015) and some scholars have argued in favour of listing good journals – ‘whitelisting’ – instead. The Directory of Open Access Journals (henceforth DOAJ), for example, aims to cover all “high quality, open access, peer-reviewed journals.”

A key issue in this debate is the fact that it is far from clear-cut which journals and publishers should be considered predatory and which ones should be considered legitimate. “Many OA journals and publishers exist in niches of unknown, uncertain and/or contested legitimacy. [...] Just as there are many different types and degrees of ‘predatory’ publishing, there are numerous ways a journal or publisher could possess ambiguous or borderline legitimacy” (Siler, 2020, p. 1391).

In this report, we study to what extent papers published by social science and humanities (SSH) scholars within Flanders appear in questionable journals or conference proceedings. Since 2013 ECOOM-UAntwerp has organised comparisons of the annual lists of journals submitted to VABB-SHW (Vlaams Academisch Bibliografisch Bestand voor de Sociale en Humane Wetenschappen) with blacklists and whitelists. VABB-SHW is the Flemish Academic Bibliographic database of the Social Sciences and Humanities. For an overview of the design of this database, see Verleysen *et al.* (2014). The results of these screenings are communicated to the Authoritative Panel (Gezaghebbende Panel or GP), which decides which publications and publication channels adhere to all requirements for inclusion in the VABB-SHW.

Eykens, Guns, Rahman and Engels (2019) present a bibliographic analysis of the publications identified as predatory in these previous screenings. The results indicate that growing awareness of the risks of predatory publishing does not lead to a turn away from open access in general. Contrary to what one might expect, both junior and senior authors have published in predatory journals.

The previous screenings used the following lists (for details see Eykens *et al.*, 2019):

- versions IV-V: Beall’s list(s) as blacklist (Rahman, Dexters, & Engels 2014; Rahman & Engels 2015),
- versions VI–VII: Beall’s list(s) as blacklist, DOAJ as whitelist (Rahman, Guns, & Engels 2015; Sīle, Guns, & Engels 2017),
- versions VIII-X: Cabells Predatory Reports (previously Cabells Journal Blacklist) as blacklist, DOAJ as whitelist (Eykens, Guns, & Engels 2018a, 2018b; Eykens & Guns, 2020).

This report is based on the set of publications submitted for VABB-SHW version XI (publication years 2010–2019). All journals and proceedings with ISSN were extracted and compared with, firstly, Cabells Predatory Reports and, secondly, the list of journals indexed in DOAJ. Both sources were consulted on December 21st, 2020.

2 Data sources

2.1 Cabells Predatory Reports

Cabells Predatory Reports (CPR) is a commercial service provided by Cabells Scholarly Analytics. The review board working on CPR makes use of an extensive list of pre-specified criteria which are used to identify deceptive, fraudulent, and/or predatory journals. Misra *et al.* (2017) argue that the use of such criteria allows for “lesser bias in selecting the journals.” For each listed journal a ‘violations report’ is available. At the time of consulting, CPR listed 14,183 journals, although it should be mentioned that we encountered a number of duplicate entries. For these, the most recently updated entry was retained.

In 2019, Cabells updated their list of criteria from version 1.0 to 1.1 by adding, removing and changing some criteria. In addition, version 1.1 introduced a distinction between severe, moderate, and minor violations. The full list of criteria can be found in Appendix A. The 75 criteria range from severe to minor violations and are divided over 8 categories:

- A. **Integrity (13 criteria):** Relates to the journal’s ethics. Does the publisher abide to standard publishing or research ethics?
- B. **Peer review (14 criteria):** Does the journal have adequate procedures for editorial control and peer review?
- C. **Website (7 criteria):** Relates to the information displayed on the website. Is it deceptive, wrong or unclear?
- D. **Publication practices (18 criteria):** Closely relates to research and publishing ethics, but focuses on the actual process of publishing, the techniques to attract authors, and statements about the management of the journal and its content.
- E. **Indexing and metrics (2 criteria):** Is the journal using misleading or wrong metrics?
- F. **Fees (6 criteria):** Does the publisher focus on payments and/or not communicate about them clearly prior to manuscript submission?
- G. **Access and copyright (6 criteria):** Does the journal (or its publisher) communicate clearly on the access granted and the copyright policy that is being carried out?
- H. **Business practices (9 criteria):** Relates to the marketing techniques used by the publisher or the journal’s editorial team.

The criteria grouped under each category could be characterized as indicators ranging from fraudulent (severe) to vague or questionable practice (minor). For instance, under integrity we find the criterion “insufficient resources are spent on preventing and eliminating author misconduct”, which is quite subjective – what is enough? On the other hand, criteria in the same category apply to hijacked journals, which are completely fraudulent: they use the name and ISSN of a reputable journal, hoping to deceive unsuspecting researchers. When making use of the violation reports of CPR for evaluation purposes, it therefore seems advisable to consider each journal’s number of violations as well as their severity.

2.2 Directory of Open Access Journals (DOAJ)

In 2003 DOAJ was set up “to increase the visibility and ease of use of open access scientific and scholarly journals, thereby promoting their increased usage and impact” (<https://doaj.org/about>). This directory aims to provide full coverage of peer-reviewed OA journals that can warrant the quality of the content. For a journal to be included in DOAJ it has to adhere to the principles of ‘Transparency & best practice’ (<https://doaj.org/apply/transparency/>). This set of 16 principles is the result of a collaboration between DOAJ, the Committee on Publication Ethics (COPE), the Open Access Scholarly Publishers Association (OASPA), and the World Association of Medical Editors (WAME). The principles refer to various aspects of publishing (peer review process, publishing schedule, etc.). At the time of consulting, DOAJ listed 15,650 journals.

3 Methods

At the start of the screening, we compiled a list of all journals with ISSN ($n = 14,647$) and proceedings with ISSN ($n = 562$) submitted for inclusion in VABB-SHW XI. These are the outlets in which scholars affiliated to an SSH unit at a Flemish university have published during the time period 2010–2019. Within the journal list, 11,436 journals have been previously identified as peer-reviewed, of which 4,736 are selected by the GP and 6,700 are indexed in the Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI), and/or Arts & Humanities Citation Index (AHCI) of Web of Science (WoS). 2,610 journals have been classified by the GP as non-peer-reviewed. Finally, 628 journals appear in the list for the first time, and therefore their peer review status is yet to be decided.

The comparison of the lists was done by cross-checking the set of ISSNs with the ISSNs and e-ISSNs in CPR. The second step consisted of looking up the ISSNs that appeared in both the VABB-SHW XI data and CPR, in the DOAJ. Only those journals and proceedings whose ISSN matched with the ISSN of a journal on CPR were retained as potentially predatory. As with previous screenings we have checked both journals indexed in WoS and journals not indexed in WoS.¹ Since the screening of VABB-SHW X (Eykens & Guns 2020), we also check conference proceedings with an ISSN.

For the cases in which a match was found, we consulted the violation report provided by Cabells and listed each journal’s violations. A separate Excel file is provided to the Authoritative Panel that lists all details of the journals in question.

4 Findings

The results of our analysis are presented in three parts. In section 4.1, we analyse the number of journals/proceedings (and their publishers) that are found in the CPR. Section 4.2 zooms in on the severity of the violations. Finally, we present a comparison of our findings to last year’s results (section 4.3).

¹ Publications in journals indexed in the SCIE, SSCI, and/or AHCI, as well as proceeding papers indexed in the CPCI-S and/or CPCI-SSH, are counted in the WoS publications parameter of the BOF-key.

4.1 Comparison of VABB-SHW with Cabells Predatory Reports

The comparison of publications submitted for VABB-SHW XI with CJB yields a set of 114 journals – 111 from the VABB-SHW journal list and 3 from the VABB-SHW proceedings list (Table 1). Some of these are indexed in WoS: 14 in the core WoS indexes (AHCI, SSCI, SCIE, CPCI-S, CPCI-SSH), and 2 in the Emerging Sources Citation Index (ESCI). 77 journals are considered non peer-reviewed, 13 non-WoS journals are classified as peer-reviewed, and the remaining 8 have not yet been classified by the GP. The list of these 114 serials is delivered as a separate Excel overview. The list includes the following characteristics: VABB identifier, title, type or status in VABB-SHW, GP ranking, whether or not a severe violation is being reported for the journal, the number of publications in VABB-SHW, the name of its publisher, as well as metadata from CPR, including which violations are reported per journal.

Just like last year, none of these journals was indexed in DOAJ. This seems to indicate a growing consensus across lists of which journals exhibit questionable behaviour and which ones don't.

One journal (*Adalya Journal*, ISSN 1301-2746) has been hijacked: upon closer inspection, both publications in VABB-SHW that appeared with this ISSN were found to be published in the original, legitimate journal.

Table 1. Number of VABB-SHW XI journals identified in Cabells Predatory Reports by peer review status and WoS indexation

	Not in WoS	In core WoS index	In ESCI	Total
Peer-reviewed	13	14	2	29
Non peer-reviewed	77	0	0	77
Peer-review status undecided	8	0	0	8
Total	98	14	2	114

The 114 journals were published by 39 different publishers, with 13 accounting for multiple (up to 27) journals (Table 2). It should be noted that journals published by the same publisher very often exhibit the same violations. Four journals could not be linked to a publisher ('-' in Table 2).

Table 2. Publishers with predatory journals in VABB-SHW XI

Publisher	Journals	Publications	In previous report
OMICS International	27	42	yes
Canadian Center of Science and Education	13	22	yes
Academic Journals	8	14	yes
Sciedu Press	7	13	yes
David Publishing Company	6	8	yes
World Scientific and Engineering Academy and Society	5	8	yes
Macrothink Institute	4	10	yes
-	4	5	-
Center for Promoting Ideas	3	6	yes
World Research Journals	3	6	yes
American Scientific Publishers	3	3	no
MedCrave	2	4	no
American Research Institute for Policy Development	2	3	yes
Premier Publishers	2	2	yes
Baishideng Publishing Group	1	2	yes

Iris Publishers	1	2	no
Scholink	1	2	yes
Serials Publications	1	2	yes
Asian Economic and Social Society (AESS)	1	1	yes
Asian Online Journals	1	1	yes
BIOLIFE	1	1	no
Better Advances Press	1	1	yes
Betty Jones & Sisters Publishing	1	1	yes
CIRWORLD	1	1	yes
European Center of Sustainable Development	1	1	yes
Fundamental Journals	1	1	yes
Global Advanced Research Journals	1	1	yes
Global Journals, Inc.	1	1	yes
Gratis Open Access Publishers	1	1	no
Humanities, Management	1	1	yes
IJRCM Journals of International Research	1	1	no
International Academy Publishing	1	1	yes
MIJP Publication	1	1	no
National Academy of Management	1	1	yes
OAE Publishing, Inc. (OAE) (OAE)	1	1	yes
Redfame Publishing	1	1	yes
SAVAP International	1	1	no
Science and Education Publishing (SciEP)	1	1	yes
Scientia Socialis	1	1	yes
Total	114	175	

When comparing the list of publishers with the results presented in the previous report, we can observe that there are nine ‘newcomers’. The top seven publishers, which represent 70 predatory journals, has remained unchanged since the previous report.

4.2 Severity of violations

The five most frequent violations are moderate or minor ones (Table 3). Relatively frequent severe violations pertain to false claims of indexation or metrics, surprise fees, and no or missing articles.

The majority of channels (87 out of 122) has a severe violation listed. If we exclude journals and proceedings indexed in WoS, we find 25 journals for which no severe problems are listed. There are, however, no journals with only minor violations: for all 25, a mixture of moderate and minor problems is listed. We advise the GP to examine these 25 journals in more detail before making a final decision on their classification in VABB-SHW.

Table 3. Top-10 most frequent violations

Violation	# journals	severity
No policies for digital preservation.	80	Moderate
The publisher displays prominent statements that promise rapid publication and/or unusually quick peer review (less than 4 weeks).	70	Moderate
The journal or publisher uses a virtual office or other proxy business as its physical address.	46	Minor
The publisher hides or obscures relationships with for-profit partner companies.	42	Moderate
Multiple emails received from a journal in a short amount of time.	29	Moderate
Falsely claims indexing in well-known databases (especially SCOPUS, DOAJ, JCR, and Cabells).	25	Severe
The journal uses misleading metrics (i.e., metrics with the words "impact factor" that are not the Thomson Reuters Impact Factor).	25	Severe
The journal or publisher gives a business address in a Western country but the majority of authors are based in developing countries.	20	Moderate
Authors are published several times in the same journal and/or issue.	19	Moderate
No articles are published or the archives are missing issues and/or articles.	18	Severe

4.3 Number of publications in predatory journals per year

We found 114 potentially predatory journals in the data submitted for VABB-SHW XI, which account for 175 publications (Table 4) or 0.2% of the number of journal publications submitted to this version of VABB-SHW.

Table 4. Number of publications in VABB-SHW XI per year that have appeared in a journal listed in CPR

Year	Non-peer-reviewed	Peer-reviewed	Undecided	Total
2010	9	2	0	11
2011	9	3	0	12
2012	16	10	0	26
2013	11	10	0	21
2014	12	5	0	17
2015	18	6	0	24
2016	12	8	0	20
2017	9	9	1	19
2018	10	3	1	14
2019	3	1	7	11
Total	109	57	9	175

For comparison, for VABB-SHW X, 97 journals were flagged as potentially predatory, with 164 publications in them respectively (Eykens & Guns, 2020). Table 5 presents an overview of the number of journals identified during each screening and the sources that were used over the years. The increase between editions X and XI is mainly due to the expansion of CPR: 21 potentially predatory journals are new to this report, 16 of which were added to CPR after the data collection for last year's report. Four journals that were listed in the previous report are no longer represented in VABB-SHW XI.

Table 5. Overview of screenings for VABB-SHW and results

VABB-SHW edition	Publication time span	Predatory journals	Articles	Blacklist used	Other sources used
IV	2003–2012	62	59	Beall's list	WoS
V	2004–2013	109	138	Beall's list	WoS
VI	2005–2014	128	315	Beall's list	DOAJ, WoS
VII	2006–2015	185	501	Beall's list	DOAJ, WoS
VIII	2007–2016	65	91	Cabells Journal Blacklist*	DOAJ, WoS
IX	2008–2017	89	145	Cabells Journal Blacklist*	DOAJ, WoS
X	2009–2018	97	164	Cabells Journal Blacklist*	DOAJ, WoS
XI	2010–2019	114	175	Cabells Predatory Reports	DOAJ, WoS

* Cabells Journal Blacklist has been renamed to Cabells Predatory Reports in 2020.

5 Limitations

With regard to the data and our analysis, three limitations should be highlighted. As stated in previous reports, journal lists are not static and often evolve rather quickly (Eykens *et al.* 2019). Journals may cease to exist, they can be withdrawn from (or added to) the DOAJ, the Web of Science, CPR, and so on. This requires the reader to pay close attention when interpreting the results. The comparison presented in this report only applies to the timeframe of VABB-SHW XI (period from 2010 to 2019).

The second limitation relates to the data gathered from CPR. Cabells provides detailed violation reports, which can be helpful for decision making. The threshold applied by the in-house experts, however, is not clear. Some of the violations are less severe than others, or allow for the reader's own (subjective) interpretation.

A third limitation is related to the matching procedure used, which relies on the availability and correctness of ISSNs in both VABB-SHW and CPR. However, for many CPR journals this information is not available, either because the journal in question simply lacks such an identifier or because this field has not been recorded by Cabells' indexers. In the latter case, it is possible that some journals could not be matched.

6 Conclusion

Our analysis shows that SSH scholars in Flanders continue to publish in journals that are listed as predatory. The total number has increased compared to the previous edition, mainly due to changes in Cabells Predatory Reports, our main data source. The numbers by publication year (Eykens *et al.*, 2019; see also Table 4) suggest that there is a growing awareness of the problem of predatory journals.

Still, recently published results (Sorokowski *et al.*, 2017) indicate that predatory journals are far from gone from the academic landscape.

7 References

- Bloudoff-Indelicato, Mollie. 2015. 'Backlash after Frontiers journals added to list of questionable publishers'. *Nature* 526 (7575): 613. <https://doi.org/10.1038/526613f>
- Eriksson, Stefan & Gert Helgesson. 2018. 'Time to stop talking about 'predatory journals''. *Learned Publishing*, 31(2), 181-183. <https://doi.org/10.1002/leap.1135>
- Eykens, Joshua, Raf Guns, & Tim C. E. Engels. 2018. 'Comparing VABB-SHW (version VIII) with Cabells Predatory Reports and Directory of open access Journals'. <https://hdl.handle.net/10067/1481030151162165141>
- Eykens, Joshua, Raf Guns, & Tim C. E. Engels. 2018. 'Comparison of VABB-SHW version IX with Cabells Predatory Reports and Directory of open access Journals'. <https://hdl.handle.net/10067/1571090151162165141>
- Eykens, Joshua, Raf Guns, A.I.M. Jakaria Rahman, & Tim C. E. Engels. 2019. 'Identifying publications in questionable journals in the context of performance based research funding'. *PLoS ONE* 14 (11): 1-19. e0224541. <https://doi.org/10.1371/journal.pone.0224541>
- Eykens, Joshua, & Raf Guns. 2020. 'Screening VABB-SHW version X with Cabells Journal Blacklist and Directory of Open Access Journals'. <https://hdl.handle.net/10067/1674140151162165141>
- Grudniewicz, Agnes, David Moher, Kelly D. Cobey, Gregory L. Bryson, Samantha Cukier, Kristiann Allen, Clare Arden et al. 2019. 'Predatory journals: no definition, no defence'. *Nature* 576: 210-212. <https://doi.org/10.1038/d41586-019-03759-y>
- Misra, D. Prasanna, Ravindran, Vinod Ravindran, Anupam Wakhlu, Aman Sharma, Vikas Agarwal, & Vir Singh Negi. 2017. 'Publishing in black and white: the relevance of listing of scientific journals'. *Rheumatology international* 37 (11): 1773-1778. <https://doi.org/10.1007/s00296-017-3830-2>
- Rahman, A. I. M. Jakaria, Nele Dexters, & Tim C. E. Engels. 2014. 'Predatory open access Journals in a Performance-Based Funding Model: Common Journals in Bealls List and in the VABB-SHW'. <http://hdl.handle.net/10067/1139870151162165141>
- Rahman, A. I. M. Jakaria, & Tim C. E. Engels. 2015a. 'Predatory open access Journals in a Performance-Based Funding Model: Common Journals in Bealls List and in Version V of the VABB-SHW'. <http://hdl.handle.net/10067/1233590151162165141>
- Rahman, A. I. M. Jakaria, Raf Guns, & Tim C. E. Engels. 2015b. 'Predatory open access Journals in a Performance-Based Funding Model: A Comparison of Journals in Version VI of the VABB-SHW with Beall's List and DOAJ'. <http://hdl.handle.net/10067/1300570151162165141>
- Sîle, Linda, Raf Guns, & Tim C. E. Engels. 2017. 'Comparing VABB-SHW (version VII) with Beall's lists and DOAJ'. <http://hdl.handle.net/10067/1396540151162165141>
- Siler, K. (2020). Demarcating spectrums of predatory publishing: Economic and institutional sources of academic legitimacy. *Journal of the Association for Information Science and Technology*, forthcoming. <https://doi.org/10.1002/asi.24339>

Sorokowski, Piotr, Emanuel Kulczycki, Agnieszka Sorokowska, & Katarzyna Pisanski. 2017. 'Predatory journals recruit fake editor'. *Nature News*, 543 (7646), 481. <https://doi.org/10.1038/543481a>

Verleysen, Frederik, Pol Ghesquière, & Tim C. E. Engels. 2014. 'The objectives, design and selection process of the Flemish Academic Bibliographic Database for Social Sciences and Humanities (VABB-SHW)' in *Bibliometrics: Use and Abuse in the Review of Research Performance*, edited by Wim Blockmans, Lars Engwall, and Denis Weaire, 117-127, Portland Press.

Appendix A. Full list of blacklist criteria

This list of blacklist criteria is taken from <https://www2.cabells.com/blacklist-criteria>. Some violations are considered more severe than others (moderate to minor).

A. Integrity	SEVERE <ol style="list-style-type: none">1. The same article appears in more than one journal.2. Hijacked journal (defined as a fraudulent website created to look like a legitimate academic journal for the purpose of offering academics the opportunity to rapidly publish their research for a fee).3. Information received from the journal does not match the journal's website.4. The journal or publisher claims to be a non-profit when it is actually a for-profit company.5. The owner/Editor of the journal or publisher falsely claims academic positions or qualifications.6. The journal is associated with a conference that has been identified as predatory.7. The journal gives a fake ISSN. MODERATE <ol style="list-style-type: none">8. The journal/publisher hides or obscures relationships with for-profit partner companies that could result in corporate manipulation of science.9. The name of the journal references a country or demographic that does not relate to the content or origin of the journal.10. The journal uses language that suggests that it is industry leading, but is in fact a new journal.11. The title of the journal is copied or so similar to that of a legitimate journal that it could cause confusion between the two. MINOR <ol style="list-style-type: none">12. Insufficient resources are spent on preventing and eliminating author misconduct (that may result in repeated cases of plagiarism, self-plagiarism, image manipulation, etc.).13. The journal/publisher hides or obscures information regarding associated publishing imprints or parent companies.
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<p>B. Peer Review</p>	<p>SEVERE</p> <ol style="list-style-type: none"> 1. No editor or editorial board listed on the journal's website at all. 2. Editors do not actually exist or are deceased. 3. The journal includes scholars on an editorial board without their knowledge or permission. 4. Evident data that little to no peer review is being done and the journal claims to be "peer reviewed". <p>MODERATE</p> <ol style="list-style-type: none"> 5. The founder of the publishing company is the editor of all of the journals published by said company. 6. Evident data showing that the editor/review board members do not possess academic expertise to reasonably qualify them to be publication gatekeepers in the journal's field. 7. Have board members who are prominent researchers but exempt them from any contribution to the journal except the use of their names and/or photographs. 8. Gender bias in the editorial board. 9. Little geographical diversity of board members and claim to be international. 10. Inadequate peer review (i.e., a single reader reviews submissions; peer reviewers read papers outside their field of study; etc.). 11. The journal's website does not have a clearly stated peer review policy. 12. The journal has a large editorial board but very few articles are published per year. 13. No affiliations are given for editorial board members and/or editors. 14. Editorial board members (appointed over 2 years ago) have not heard from the journal at all since being appointed to the board.
<p>C. Website</p>	<p>MINOR</p> <ol style="list-style-type: none"> 1. The website does not identify a physical address for the publisher or gives a fake address. 2. The journal or publisher uses a virtual office or other proxy business as its physical address. 3. The website does not identify a physical editorial address for the journal. 4. Dead links. 5. Poor grammar and/or spelling. 6. No way to contact the journal/only has web-form.

	7. The journal's website attempts to download a virus or malware.
D. Publication practices	<p>SEVERE</p> <ol style="list-style-type: none"> 1. The journal publishes papers that are not academic at all, e.g. essays by laypeople or obvious pseudo-science. 2. No articles are published or the archives are missing issues and/or articles. 3. Falsely claims indexing in well-known databases (especially SCOPUS, DOAJ, JCR, and Cabell's). 4. Falsely claims universities or other organizations as partners or sponsors. 5. Machine-generated or other "sting" abstracts or papers are accepted. <p>MODERATE</p> <ol style="list-style-type: none"> 6. No copyediting. 7. The publisher displays prominent statements that promise rapid publication and/or unusually quick peer review (less than 4 weeks). 8. Little geographical diversity of authors and the journal claims to be International. 9. Similarly titled articles published by same author in more than one journal. 10. The Editor publishes research in his own journal. 11. Authors are published several times in the same journal and/or issue. 12. The journal purposefully publishes controversial articles in the interest of boosting citation count. 13. The journal publishes papers presented at conferences without additional peer review. 14. The name of the publisher suggests that it is a society, academy, etc. when it is only a publisher and offers no real benefits to members. 15. The name of the publisher suggests that it is a society, academy, etc. when it is only a solitary proprietary operation and does not meet the definition of the term used or implied non-profit mission. 16. The number of articles has increased by 75% or more in the last year. 17. The number of articles has increased by 50-74% in the last year. <p>MINOR</p>

	18. The number of articles has increased by 25-49% in the last year.
E. Indexing & Metrics	<p>SEVERE</p> <p>1. The journal uses misleading metrics (i.e., metrics with the words “impact factor” that are not the Thomson Reuters Impact Factor).</p> <p>MINOR</p> <p>2. The publisher or its journals are not listed in standard periodical directories or are not widely catalogued in library databases.</p>
F. Fees	<p>SEVERE</p> <p>1. The journal offers options for researchers to prepay APCs for future articles.</p> <p>2. The journal states there is an APC or other fee but does not give information on the amount or gives conflicting information.</p> <p>3. The journal or publisher offers membership to receive discounts on APCs but does not give information on how to become a member and/or on the membership fees.</p> <p>4. The author must pay APC or publication fee before submitting the article (specifically calls the fee a publication fee, not a submission fee).</p> <p>5. The journal does not indicate that there are any fees associated with publication, review, submission, etc. but the author is charged a fee after submitting a manuscript.</p> <p>MODERATE</p> <p>6. The publisher or journal's website seems too focused on the payment of fees.</p>
G. Access & Copyright	<p>MODERATE</p> <p>1. States the journal is completely open access but not all articles are openly available.</p> <p>2. No way to access articles (no information on open access or how to subscribe).</p> <p>3. The journal is open access but no information is given about how the journal is supported financially (i.e. author fees, advertising, sponsorship, etc.)</p> <p>4. No policies for digital preservation.</p>

5. The journal has a poorly written copyright policy and/or transfer form that does not actually transfer copyright.
6. The journal publishes not in accordance with their copyright or does not operate under a copyright license.

H. Business Practices

MODERATE

1. Emailed solicitations for manuscripts from the journals are received by researchers who are clearly not in the field the journal covers.
2. Emailed invitations for editorial board members or reviewers from the journal are received by researchers who are clearly not in the field the journal covers.
3. Multiple emails received from a journal in a short amount of time.
4. Emails received from a journal do not include the option to unsubscribe to future emails.
5. The journal has been asked to quit sending emails and has not stopped.
6. The journal copy proofs and locks PDFs.
7. The journal or publisher gives a business address in a Western country but the majority of authors are based in developing countries.

MINOR

8. No subscribers / nobody uses the journal.
9. The journal's website does not allow web crawlers.