

DST-NRF Centre of Excellence in Scientometrics and Science, Technology and Innovation Policy

# Predatory publishing: Beall and beyond

J Mouton 17 August 2017 SU Workshop

#### Storyline

- ASSAf study goals and consequences
- Our SAJS paper
- Reactions and wider impact
- Life after Beall
- Growing scholarship on predatory publishing
- Other forms of unethical practices
- How did we get to this point?

### ASSAf study

### Background

- CREST was commissioned in March 2015 to undertake a comprehensive analysis of the state of journal and book publishing in South Africa. This commission was issued specifically to investigate how the revision in the funding framework of 2005 had impacted on journal, book and conference proceeding outputs in the country.
- A (somewhat implicit) focus of this study would be to address issues around quality and ethics of scholarly publishing in SA rather than merely of volume and output.
- One of the (unintended) outcomes of the study was our discovery that predatory (and other forms of unethical practices in SA scholarly publishing ) have become quite pervasive.

#### The ASSAf study

- The final report of the ASSAf study was submitted on the 17<sup>th</sup> of January and it is anticipated that an edited version of this report will be released by the end of September
- A comprehensive seminar (28/29 September) on this report and other relevant studies will be held at CREST (contact Rolene Langford for more details <u>rlm@sun.ac.za</u>)

### A definition: The watchdog – Jeffrey Beall



- Predatory journal are OA journals that exist for the sole purpose of profit
- These predators generate profits by charging (excessive) author fees, also known as article processing charges (APCs.
- These journals typically solicit manuscripts by spamming researchers (especially yahoo and Gmail accounts)
- These journals also typically have bizarrely broad or disjointed scopes and boast extremely rapid publication.

https://scholarlyoa.com/2016/01/05/bealls-list-of-predatorypublishers-2016/

## The watchdog – Jeffrey Beall (now put to rest!)



Jeffrey Beall maintained two lists: A list of standalone predatory journal titles (1220 titles at the time of writing this report) and a list of predatory publishers. The former list was simply a list of individual journals which, according to Beall, are predatory journals. For some of these he provided additional information in support of his judgement. The latter list is much more comprehensive but at the same time arguably less reliable. This is a list of journal (and sometimes also book and proceedings) publishers. In this instance, Beall argued that a particular publishing house (such as Academic Journals or OMICS) has a demonstrated history of publishing questionable journal titles. Because of this, all journal titles listed by the publisher are hence regarded as being predatory journals. In January we estimated that there were just over 900 active publishers on the more recent Beall's list. If one sums the number of journals listed under these publishers, the number comes to a staggering 23 400+ titles!

After closing his website on the 15<sup>th</sup> of January, Beall broke his silence: <u>http://www.biochemia-medica.com/2017/2/273</u> The list can still be found at: <u>http://beallslist.weebly.com/</u>

#### The SA case study (SAJS Study)

#### The extent of predatory publishing in SA

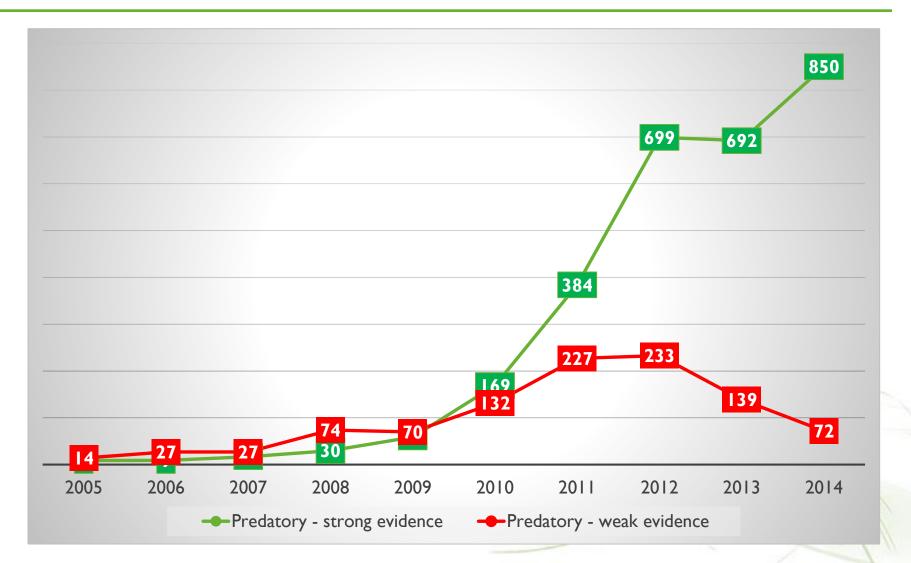
Our study showed that if we were to take Beall's list as reference, we end up with 57 Journal Titles in which 4245 SA-authored papers have appeared between 2005 and 2014. We assessed each of these 57 titles and subsequently assigned each of the titles to four categories:

- Not predatory: In these cases we believe that Beall was simply wrong in his classification of the journal or there is insufficient evidence to make such a claim
- Strong evidence for predatory: In these cases we concur with Beall's classification
- Weak evidence for predatory: In these cases we found some evidence that the journal might be a predatory journal, but do not think the evidence is strong enough to make a definitive judgment
- Insufficient evidence: In these cases we simply could not find any pertinent evidence to make a judgment either way.

#### Results

Using this fourfold classification allowed us to estimate what the overall extent of predatory publishing in South Africa is. For this estimate we exclude the 339 papers in the 10 journals that we have classified as being either 'not predatory' or for which we have 'insufficient evidence' to make a judgement. This leave a total number of 3906 papers which constitute 3.4% of the total article production over the past 10 years. The disaggregation by evidence categories is as follows: 2891 papers (or 2.5%) appeared in journals which we classified as probably predatory (strong supporting evidence) and 1015 (or 0.09%) appeared in journals which we classified as possibly predatory (weak supporting evidence).

## Increase in number of papers published by SA authors in predatory journals (2005 – 2014)



#### Predatory publishing by university

University	Predatory -	Share of	Predatory -	Share of	Total	Share of total	Total nr of
	strong evidence	total	weak evidence	total	'predatory'	papers	papers
		papers		papers			
CPUT	107	7.9%	80	5.9%	187	13.8%	1358
CUT	71	13.4%	11	2.1%	82	15.5%	528
DUT	86	10.5%	51	6.2%	137	16.7%	819
MUT	22	16.3%	13	9.6%	35	25.9%	135
NMMU	41	1.8%	8	0.4%	49	2.2%	2268
NWU	357	4.7%	51	0.7%	408	5.4%	7520
RU	11	0.3%	18	0.4%	29	0.7%	4286
SU	126	0.9%	20	0.1%	146	1.0%	14005
TUT	93	4.5%	26	1.3%	119	5.8%	2051
UCT	40	0.3%	4	0.0%	44	0.3%	14533
UFH	220	14.7%	160	10.7%	380	25.4%	1496
UFS	115	1.9%	36	0.6%	151	2.5%	6105
UJ	224	4.3%	18	0.3%	242	4.6%	5256
UKZN	269	1.9%	167	1.2%	436	3.0%	14449
UL	151	7.7%	68	3.5%	219	11.2%	1960
UNISA	546	6.9%	44	0.6%	590	7.5%	7863
UNIVEN	164	14.9%	74	6.7%	238	21.7%	1097
UP	108	0.7%	74	0.5%	182	1.2%	15348
UWC	50	1.3%	25	0.7%	75	2.0%	3801
UZ	33	3.7%	22	2.4%	55	6.1%	900
VUT	42	7.3%	12	2.1%	54	9.4%	573

#### Discussion

If we focus on the first two columns (strong evidence category), small proportions of papers (less than the mean of 2.5%) were produced at the major research universities (UCT, SU, UP, WITS, RU, UKZN, UFS and UWC) and one comprehensive university – NMMU. At the other end of the spectrum we find that relatively large proportions (more than 10%) of all papers produced over the past ten years at WSU, MUT, UFH, UNIVEN, DUT, CUT, CPUT, UL, UZ, UJ and VUT appeared in predatory journals. The pattern of predatory publishing in the category of 'possible predatory' journals' (weak evidence) is mostly similar with UFH, MUT, WSU, DUT, CPUT, UNIVEN and UL recording proportions of papers significantly above the national average.

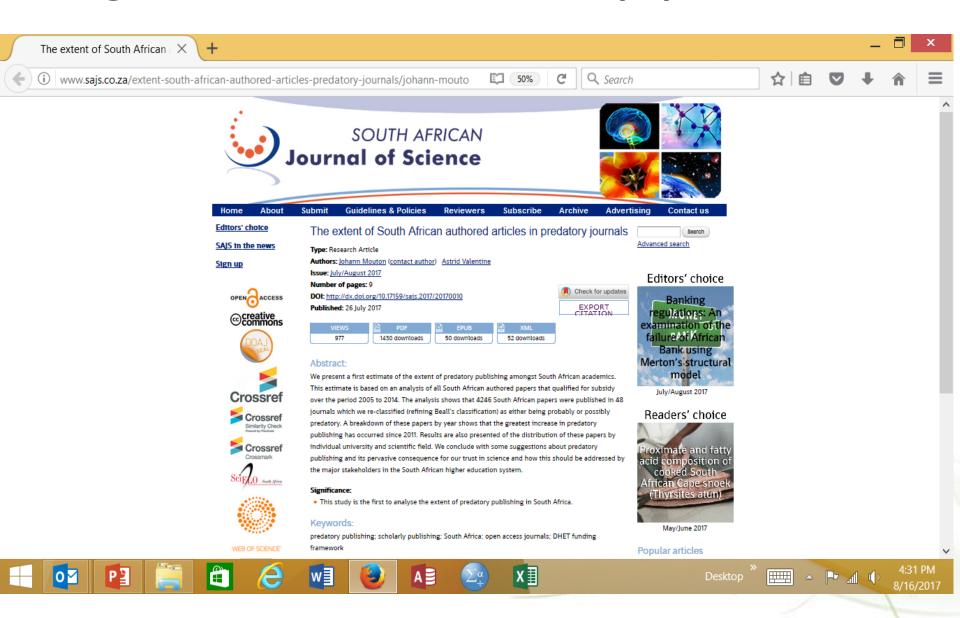
#### **Reactions** and wider impact

#### Types of responses

- High levels of interest in the paper
- Pushback from two publishing houses
- Requests for advice from individual academics
- Impact at the NRF



#### High levels of interest in the paper





## Predatory journals 'threaten science'

#### By DAVE CHAMBERS

 Predatory publishing – in which bogus journals publish academic research for a fee – threatens to undermine science in South Africa.

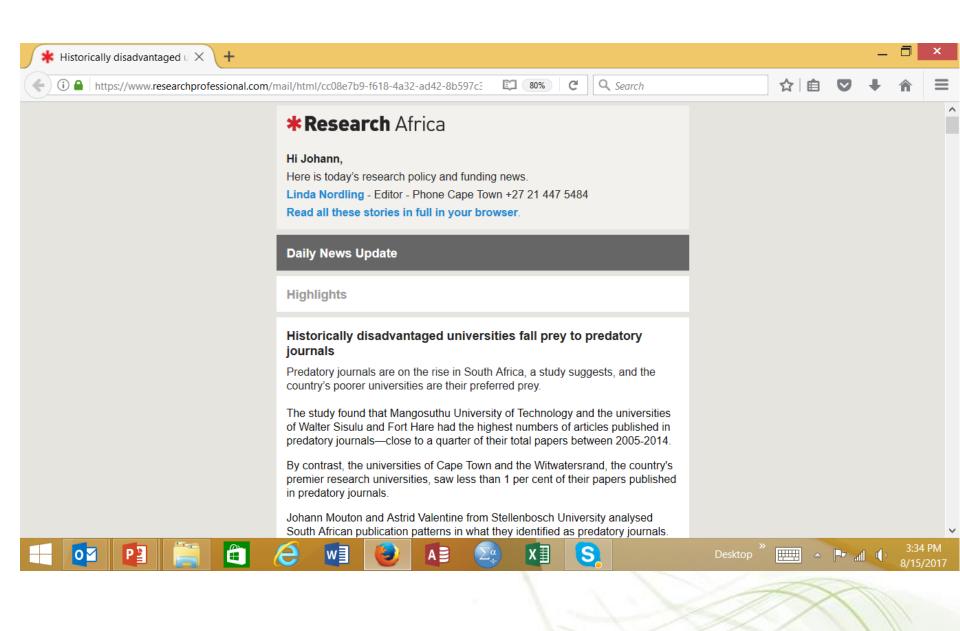
That is the warning from academics at Stellenbosch University, who say Blade Nzimande's Department of Higher Education and Training has wasted up to R300-million on research grants to scientists whose work ended up in predatory journals.

Johann Mouton and Astrid Valentine say

that between 2005 and 2014 more than a quarter of the research output at three universities ended up in bogus journals. They are Mangosuthu University of Technology in Durban, the University of Fort Hare in Alice and Walter Sisulu University in Mthatha.

The two academics say urgent action is needed from the Department of Higher Education, the Council on Higher Education and the National Research Foundation.

"[Predatory publishing] poses a serious challenge to science," they say in the South African Journal of Science.



#### From KRE-publishers

Dear Sir/Madam

It is to inform you that International Journal of Educational Sciences (IJES) is indexed in Web of Science Core Collection under the Emerging Sources Citation Index (Thomson Reuters) at present (Please check the attached file about KRE-Journals present status).

I have checked the attached article and really surprised to check that how and why this journal has published the attached research article on predatory journals, when Beall's List of Predatory journals has already been withdrawn in December 2016/January 2017.

We would like draw your attention to the fact that ten KRE journals (list attached) have been included in a white-list released by the University Grants Commission, Government of India this year (http://ugc.ac.in/journallist/journal list.aspx). Also, KRE journals have recently been included in the Norwegian Register for Scientific Journals

(https://dbh.nsd.uib.no/publiseringskanaler/Forside?request locale=en).

Regarding the inclusion of KRE in Dr. Beall's list, we had written to him several times requesting for a rationale for KRE to be included in his list. We also pointed out to Dr. Beall that even as per his 'List of Criteria for Determining Predatory Open-Access Publishers-2015', our journals did not fall under any of the criteria he had mentioned. He never provided a clear answer beyond once stating that KRE's name could not be removed from the list "at this time". It has been rather difficult to ascertain what his concerns were and, as you would appreciate, it is now no longer possible for us to get this rectified since the list is no longer operational.

#### From CPC Business Perspectives

Dear Prof. Mouton,

I represent LLC "CPC "Business Perspectives", the publisher of several journals that were included into the list of "predatory" journals, composed in the article "The extent of South African authored articles in predatory journals" that has been recently published in South African Journal of Science. Would you kindly elaborate on your criteria of inclusion to this list that were applied specifically to four journals:

- I). Problems and Perspectives in Management
- 2). Investment Management and Financial Innovations
- 3). Banks and Bank Systems
- 4). Environmental Economics

We deem ourselves and our journals compliant with the international standards of publication ethics. Moreover, these journals meet the criteria mentioned in the paper. In the case with Problems and Perspectives in Management, we'd like to know the reasons and evidence to consider the journal "predatory". As you understand, such claims hurt journal's reputation and we'd like to discuss these issues and make corrections to the article in case they are resolved.

#### Response from individual academics

- In response to a request for colleagues to send me 'suspicious' request for publications (phishing emails) – the record thus far is from Anna-Susan Marais (who sent me more than 140 such emails over the past 6 weeks!)
- Requests to "check" the credibility of journals that contact scholars
- More general questions about publication ethics (See overleaf)

#### Request for advice

Gestel 'n senior navorser kom agter 'n student het 'n gesamentlike publikasie laat publiseer in 'n predatoriese publikasie (mede-outeurs). Is dit eties van die senior navorser om dit nie by sy cv in te sluit nie? Juis agv die moontlike toekomstige penalisasie?

EK IS NIE HEELTEMAL SEKER OF EK DIE GEVAL BEGRYP NIE. IS DIT 'N GEVAL WAAR 'N SENIOR NAVORSER AGTERGEKOM HET DAT 'N VOORMALIGE STUDENT 'N PUBLIKASIES ONDER HUL GESAMENTLIKE NAAM GEPUBLISEER HET SONDER DAT DIE NAVORSER SE TOESTEMMING GEVRA IS? DIT GEBEUR DAT STUDENTE – UIT HUL TESISSE – SELF PUBLIKASIES INDIEN VIR PUBLIKASIE BY JOERNALE SONDER DAT DIE NAVORSER OF STUDIELEIER DAARVAN WEET. INDIEN DIT SODANIGE GEVAL IS, IS DIT REEDS OP SIGSELF 'N ONETIESE PRAKTYK.ALLE OUTEURS VAN ALL ARTIKELS MOET GEKEN WORD IN DIE BESLUIT OM 'N ARTIKEL VIR 'N JOERNAAL AAN TE STUUR.AS DIT SODANIGE GEVAL IS EN DIE ARTIKEL HET IN 'N ROOFJOERNAAL VERSKYN, BEHOORT NOG DIE NAVORSER NOG DIE STUDENT DIE ARTIKEL IN HUL CV'S TE LYS.

Hoe gemaak met predatoriese konferensies? Ek neem aan breedweg dieselfde riglyne om dit uit te snuffel geld hier as vir tydskrifte.

ABSOLUUT. WAT HIER GEBEUR – NOGAL OP GROOT EN TOENEMENDE SKAAL – IS DAT AKADEMICI GENOOI WORD OM DEEL TE NEEM AAN 'NKONFERENSIE WAT EINTLIK NIE BESTAAN NIE. HULLE WORD GEVRA OM 'N REGISTRASIEFOOI TE BETAAL EN HUL NAAM MAG SELFS OP 'N SKYNPROGRAMVERSKYN. MAAR AS HULLE DAAR OPDAAG IS DAAR GEEN KONFERENSIE NIE. SO HIERDIE 'N GEVAL WAAR AKADEMICI BAIE SEKER MOET MAAK DAT DIE VERSOEK OM BY 'N KONFERENSIE DEEL TE NEEM VAN 'N LEGITIEME EN BRTROUBARE BRON KOM.

## And then there is Prof Ollie Daube



OLLIE is in many ways a typical dog. She likes going for walks and chasing birds, and is especially fond of having her tummy rubbed. But in one respect, the Staffordshire Terrier differs radically from her canine peers: she has a burgeoning academic career, and sits on the editorial boards of seven medical journals. As you may have guessed, the journals on whose boards Ollie sits are of the predatory variety. These are shadowy, online publications that mimic legitimate journals, but are prepared to publish anything in exchange for a fee that can run into thousands of dollars. Predatory journals prey on desperate young researchers under huge pressure to get their research published to further their careers.

Ollie's owner is Mike Daube, Professor of Health Policy at Curtin University in Perth. Ollie likes to watch Mike working on his computer, and Mike gets a lot of emails from predatory journals. Wondering just how low these journals would go, he put together a curriculum vitae for his dog – detailing research interests such as "the benefits of abdominal massage for medium-sized canines" – and sent it off to a number of these journals, asking for a spot on their editorial boards. Remarkably, the vast majority accepted Ollie without demur, and her name now adorns several journal websites. Ollie is a trailblazer, Professor Daube says, being the first dog ever to get on the editorial board of a journal.

"What makes it even more bizarre is that one of these journals has actually asked Ollie to review an article. It's entitled *Malignant peripheral nerve sheath tumours and their management* 

#### Impact at the NRF

- The National Research Foundation (NRF) of South Africa's peer review and adjudication system has identified a number of instances where applications for research grants, scholarships and NRF rating include publications in predatory journals or cite invitations by deceptive publishers to serve on editorial boards of journals.
- This practice is neither supported nor encouraged by the NRF as it challenges the integrity of the NRF's scientific peer review process. The use of predatory journals and deceptive publishers compromises the creation and dissemination of rigorous scientific and scholarly work within the Digital and Open Access movement.
- In order to protect the integrity of the NRF's processes and reputation from these unethical and unscholarly practices, the NRF reserves the right to not consider applications where this practice is evident.

### **Beyond Beall**

#### **Beyond Beall**

- Attempts to continue the 'watchdog' role of Beall
- More articulated and scholarly approaches to identifying predatory journals
- Better understanding of the deeper issues around scholarly publishing

#### Continuing the 'watchdog' role

## New websites/tools to identify predatory journals

- Stop predatory (<u>https://predatoryjournals.com/</u>)
- Cabell (<u>https://cabells.com/about-blacklist</u>)
- Predator vs Academator: <u>https://predatorvsacademator.wordpress.com/2017/01/18/alleged-misleading-metrics/</u>
- Consult the Directory of Open Access Journals (<u>https://doaj.org/</u>)
- New websites that list "fake" journals: (<u>https://fakejournalss.wordpress.com/list-of-fake-computer-science-journals/</u>)

# Growing scholarship on predatory publishing

#### Improved scholarship on predatory journals

- Beall has consistently been criticised on various accounts for the lack of rigour in his criteria for identifying predatory journals and even for exhibiting an "implicit" bias against OA publishing in general
- Over the past few years, a number of serious scholarly articles and reports have been published that attempt to be more "scientific" in matters of definition and methodology. One such paper is by Petrisor (2016): *Evolving strategies of the predatory journals*. In the next few slides, I summarise his advise/tips to (young)scholars when looking out for possible predatory journals.

#### Petrisor: Through the lens of the predator

The research presented in this article aims to identify the strategies of the predatory journals using the five stages of predation as a theoretical lens. The analogy with biological predation can include the five stages of predation (Endler 1986): <u>detection</u>, <u>identification</u>, <u>approach</u>, <u>subjugation</u>, and <u>consumption</u>.

In this case, the 'detection' consists of finding authors who have published in other journals; 'identification' consists of getting their contacts; the 'approach' stage starts with the Call for Papers (CFPs') and ending with the author paying no attention or being subjugated; 'subjugation' is the submission stage; and 'consumption' coincides with charging the author. Most of the strategies are involved in the 'approach', and few in the next stages. The strategies used in the stages preceding the 'approach' are common to the ones of any scam involving contacting a person found via the Internet in order to obtain material advantages.

#### Approach strategies

Since the entire operation of predatory open-access journals takes place online, the most common way to approach authors is to send the CFPs via mass. Obviously, in the previous stages potential authors are identified based on their publications in other journals or conference proceedings, and their contacts gathered from these publications. Nevertheless, people with no scholarly publishing experience, but whose contacts were found online, received such calls. Most authors agree that the poor command of English language is a common characteristic of these calls.

#### Common features in the approach strategies

- I. Journal Name
- 2. Journal Location
- 3. Journal Subject
- 4. Fast publication
- 5. Abstracting and Indexing (and Fake metrics)
- 6. More personalised invitations (recently)
- 7. Flattery in invitations (and even more so with Predatory conference CFP's)

#### Journal Name

Several words are common to many titles or CFPs: 'advanced', 'scientific', 'scholarly peer-reviewed', 'leading publisher'. Furthermore, Crawford (2014) found out that there are 74 'Indian Journal of...', 247 titles starting with 'Global', 300 with 'Open' (176 'Open Journal...' and 228 'The Open...'), 114 'Research Journal of...', 131 'Research Open Journal of...', and 2,208 'International Journal...'. Titles often repeat or overlap: Scientific Research and Essays, Standard Scientific Research and Essays, or International Journal of Scientific Research and Essays. Emerging common words are 'Modern', 'Innovative', 'Green', 'Progressive', 'Ingenious', and 'Standard'. Relatively recently, famous journals were hijacked by creating fake predatory websites or online sites for journals which exist only in print form: Wulfenia, Archives des Sciences, Jökull, Bothalia, Pensée, Sylwan, Ciencia e tecnica vitivinicola, or CADMO; in addition, the predatory journals broadened the initial scope: Wulfenia, specialized in plant biology, became 'Multidisciplinary Wulfenia', covering all possible subjects.

#### Journal location

Several authors have noticed that most current names include words like 'global', 'international', 'universal', or 'world'. This strategy can be seen as an attempt to mask the real location, in addition to faking it in the title or address, included in the invitation of found on the website: the address is in the US, UK, Australia or Canada. Most of them seem to be located in India, "where new predatory publishers or journals emerge each week", Pakistan or Nigeria. Also, the address is not always mentioned in the CFPs or on the websites. An emerging strategy is to rent office addresses in the US or the UK, and include American or British in the journal name, although the business is run from another country (India etc.). A ridiculous situation is the resulting oxymoronic name American International Journal of...(Biology, Contemporary Scientific Research, Research in Formal, Applied and Natural Sciences etc.)

#### Journal subject

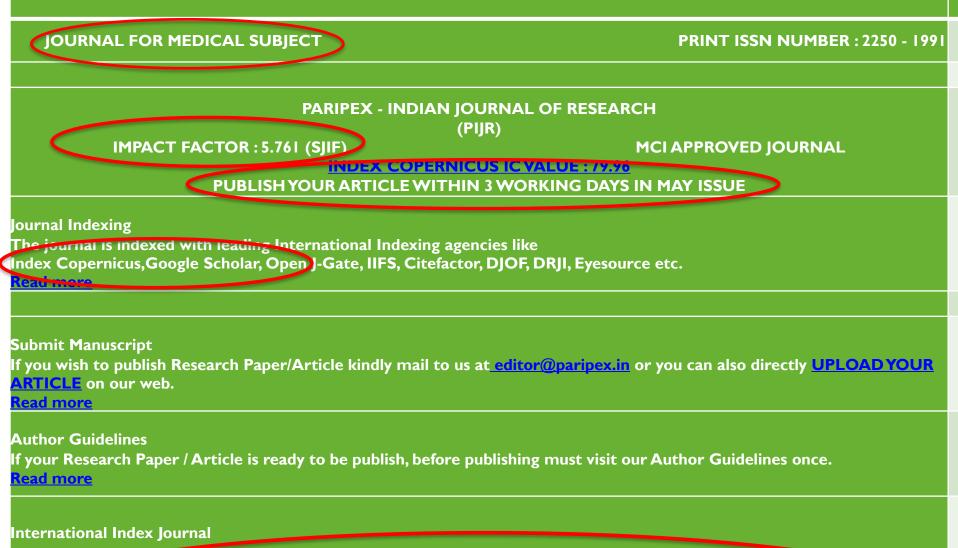
In most cases, predatory journals have a broad coverage of subjects and topics, combining fields that are more or less related, or even lacking a specific field (Journal of Comprehensive Research, Scientific Research and Essays, Standard Scientific Research and Essays, or International Journal of Scientific Research and Essays). For example, the Journal of Scientific Research and Studies covers, according to the CFP, "Biomedical and Life Sciences, Chemistry and Materials Science, Computer Science and Communications, Earth and Environmental Sciences, Engineering, Medicine and Healthcare, Physics and Mathematics and finally Social Sciences and Humanities" through "Research Papers, Working Papers, Short Communications, Case Studies and Literature Surveys". Also, the Global Advanced Research Journal of Arts and Humanities "is dedicated to increasing the depth of the subject across disciplines with the ultimate aim of expanding knowledge of the subject", although the subject is not stated.

#### Fast publication

Most predatory journal promise a shorter review cycle, or provide the author an option to shorten it by paying a certain amount. To illustrate this statement, the International Journal of Emerging Technology and Advanced Engineering mentions in its CFP for Volume 5, Issue 2 of February 2015 that the submission deadline is February 05, 2015, and the publication date, February 20, 2015. The 'record' shortest times are mentioned by Ambit Journals (48 hours) and Indian Journal of Research (3 days).

#### Abstracting and Indexing

This is often used as a principal attractor; some of the oldest predatory journals (African Journal of Business Management, African Journal of Biotechnology, and African Journal of Agricultural Research) were indexed in Thomson-Reuters – Institute of Scientific Information (ISI) database, although they were unlisted later; starting with 2013, fake indexes were created; although they are often listed as 'ISI', in fact they are GISI – Global Institute for Scientific Information; the Impact Factor (IF) is replaced by Google-based Impact Factor or invented factors, such as Global Impact Factor (GIF), Universal Impact Factor (UIF), Journal Impact Factor (JIF), or Morocco-based Scientific Journal Impact Factor (SJIF). Interestingly, the entire infrastructure for 'accrediting' such journals is a business by itself; for example, a journal applying for a JIF from GISI will be charged 'a nominal fee for processing' (http://www.jifactor.com/SubmityourJournal.asp); in the past, dedicated websites displayed the fees, but now they have been removed. Furthermore, in order to look credible, such indices have values which would not draw any particular attention if they were impact factors (i.e., between 1 and 2), although they are dubiously defined. For example, the Global Impact Factor considers "factors like peer review originality, scientific quality, technical editing quality, editorial quality and regularity" (http://globalimpactfactor.com/).



Paripex-Indian Journal of Research (PIJR) is an international open access journal providing a platform for advances in basic and advanced clinical medical research for all branches of Medico Professionals. PIJR provides cutting edge updates, developments in the medical arena and helps medical fraternity to syncronize their knowledge in todays time Paripex-Indian Journal of Research is publishes paper/research article in every three working days, and hence publishes reviews, articles, short communications and case reports. Authors are encouraged to publish their experimental and theoretical results about molecular and cellular processes in disease, thus to increase understanding of fundamental principles and biological questions of medicines. The Journal is inline with MCI norms and index with Index. Copernicus Value 79.96

#### Flattery

<u>Example</u>: First of all we would like to congratulate you for your consistent and incessant efforts till now in the field of ... Being aware of your eminence in the related field, we cordially invite you for your valuable contribution towards our journal (Geoinformatics & Geostatistics)

'Predatory conferences' use even more bombastic phrasing, when calling for speakers; an invitation to the 3rd World Congress on Cell Science & Stem Cell Research includes the following text: "Dear Dr... Greetings. First of all, our Organization wants to honor you for your achievement and Awards. Your path and experience may guide many young researchers to be a successful scientist in the world. With your majestic presence which will take the conference to a supreme level and also will support to harness the current and future research in Cell Science & Stem Cell Research."

#### A recent invitation I got...

Dear Dr. Johann Mouton,

Greetings!!

Hope this email finds you in best of health & spirit

We take the privilege to invite you to address as **Honourable Chief Guest** at the "International Conference and Expo on Biotechnology and Healthcare (Biotechnology-2017) held during October 26-27, 2017 in Prof. Jayashankar Telangana State University, Hyderabad, India. In this conference participants, will have direct access to core biotechnology & health care professionals and decision makers providing a platform to increase their professional network, idea generation and learning opportunities.

Biotechnology field has great impact and scope in India, most of the young researchers attending the conference will be enlightened with your introductory speech at the conference. Hence, we have chosen the Hyderabad as suitable venue to organize this biotechnology congress.

Your Contributions in this field are remarkable, unforgettable & inspirational to young scientists. Also, it would be an opportunity for you

- to educate and motivate current generation biotechnology research holders and students by sharing your ideas
- to guide start-up companies by sharing your innovative ideas
- to meet international biotechnology & healthcare related scientists and students.
- to meet other laureates

#### "Missing" features in CFP's

- Editorial structure
- Originality and design
- Similarity in logos

General strategies

• Poor language

#### Copying logos

# Website logo CFP logo DonnishJourne DONNISH JOURNALS SJ SAVANTJOURNALS SAVANT JOURNALS SWIFTJOURNALS SWIFT JOURNALS

Figure 1: Logos of *Donnish Journals, Savant Journals* and *Swift Journals*, as extracted from the CFPs and websites. The images show that the CFP logos are absolutely the same (font and color) and website logos show high similarity.

#### Subjugation and consumption strategies

- Hidden fees
- Advertisements
- Business advertisement terminology



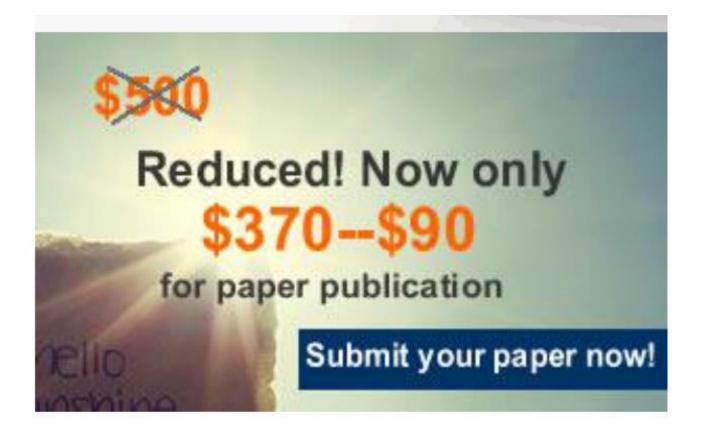


Figure 2: Advertisements included in the CFPs from *SciencePG*. The content is typical to a product advertisement and focused on price instead of quality

#### In conclusion

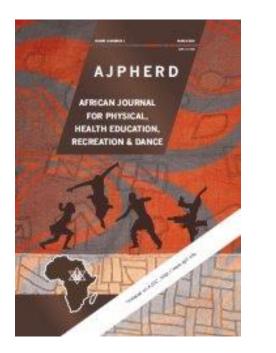
Perhaps the new way of making science, turning it into a business, is one of the causes that gave birth to predatory journals. Another cause might be a re-interpretation of the classical 'publish or perish' distorted by science metrics; several consequences are the need to publish abroad and, if possible, in a country with higher-rated journals, the need to be visible in order to be cited (in the context of an evolving electronic 'publishing ecosystem'), and the need to publish fast. If this is the case, a return to the science for the sake of science or the benefit of society is a possible solution. Petrisor (2016): Evolving strategies of the predatory journals.

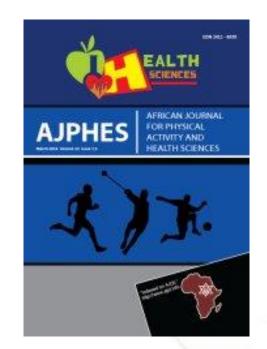
#### Other forms of unethical practices

#### The extent of unethical practices

- Predatory publishing is only one of the manifestations of increasingly unethical and fraudulent behaviour in science
- There is growing evidence of increases in plagiarism (correlates in retractions), different forms of misconduct (ghost authorship, fake peer review, unethical reporting of scientific results) etc.
- In our ASSAf study we also identified other forms of unethical publishing behaviour in SA (two examples overleaf)

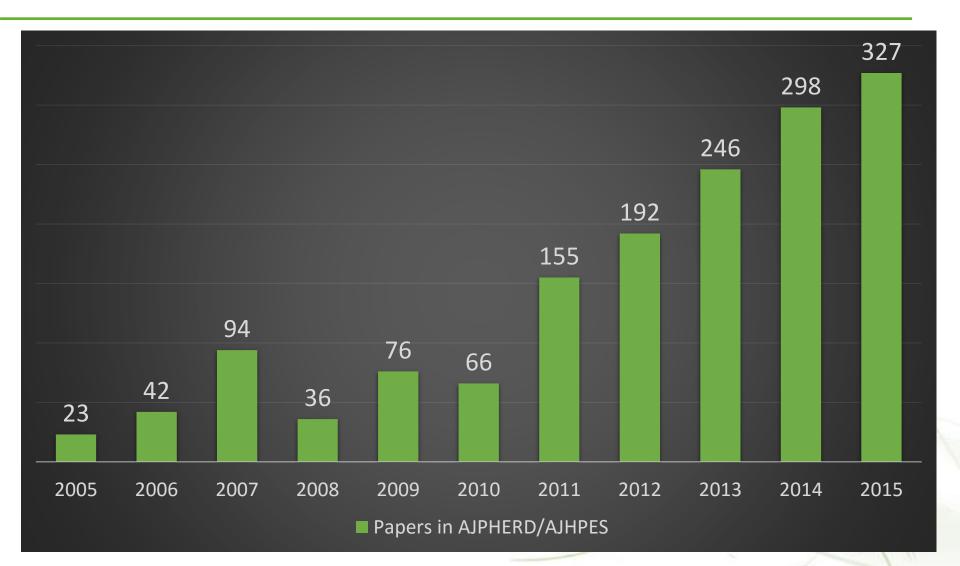
# The South African Journal that published the most articles between 2005 and 2015





African Journal for Physical Health Education, Recreation and Dance (AJPHERD), continued by the African Journal for Physical Activity and Health Sciences (AJPHES) in 2016

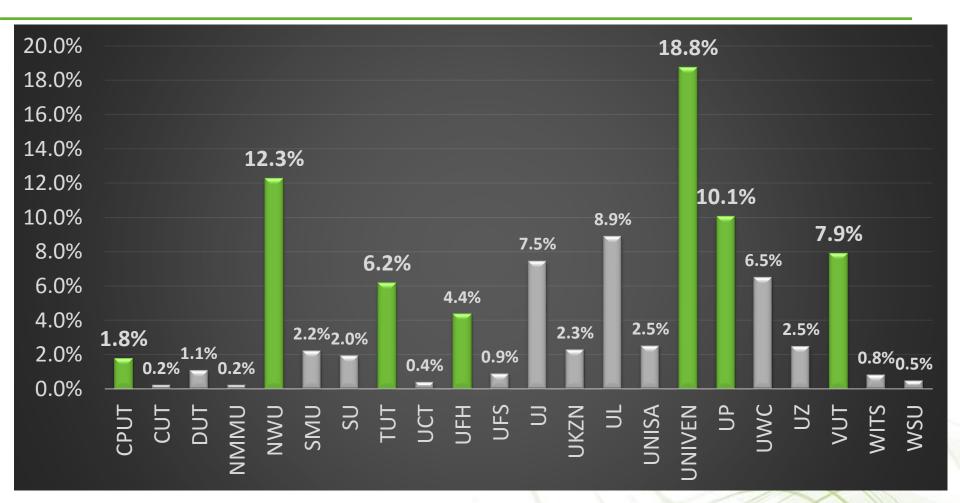
#### Increase in number of papers by year (AJHPES)



#### AJHPES (2011 – 2015)

Institution	2011	2012	2013	2014	2015	Total
UNIVEN	94	56	155	176	166	647
NWU	30	56	58	49	57	250
UP	21	99	13	47	48	228
UL	13	17	73	85	89	277
VUT	57	58	30	26	18	189
UJ	17	45	51	55	56	224
UWC	34	4	15	102	41	196
TUT	28	51	27	31	5	142
UFH	1		33	32	86	152
UNISA		7	30	23	19	79
UZ	13	16	21	П	18	79
UKZN	16	20	9	12	I	58
Sefako Makgatho Health Sciences University (SMU)					78	78
CPUT		26	П	10	14	62

#### AJPHERD / AJHPES: % of Papers per university

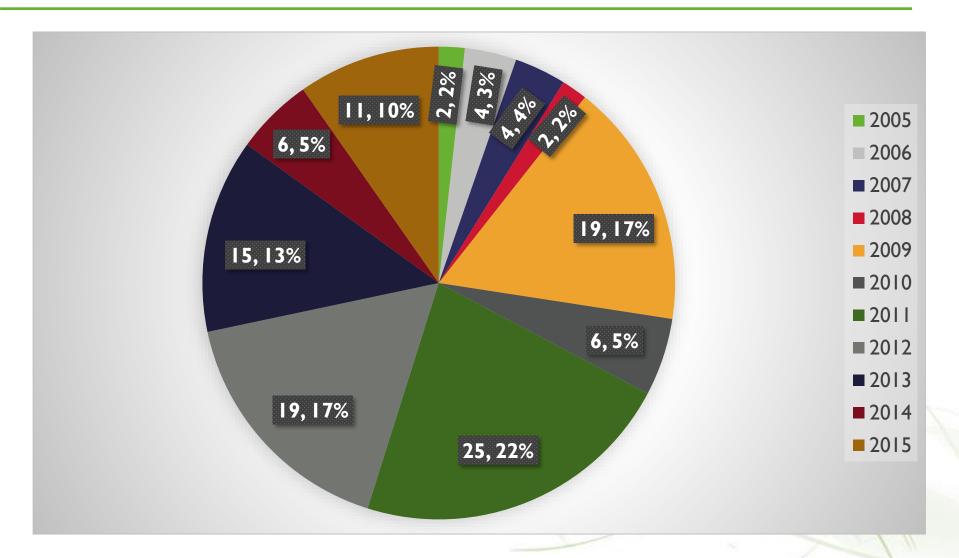


<u>Note</u>: The editorial board consists of members from the following South African universities (past & present): UNIVEN, NWU, VUT, UFH, UP, TUT & CPUT (= 63.9%)

### Top 12 authors who published in AJHPES (2005 – 2015)

Author	Papers	Institution	Share	Cum %
Surujlal, J	113	VUT / NWU	3.3%	3.3%
Dhurup M	77	VUT / NWU	2.2%	5.5%
Amusa LO	58	UNIVEN	I.7%	7.1%
Toriola AL	58	TUT / UNIVEN	I.7%	8.8%
Shaw BS	57	TUT / UJ	<b>I</b> .6%	10.4%
Goon DT	50	UNIVEN / TUT / UFH	I.4%	11.9%
Mothiba T	42	UL	I.2%	13.1%
Maputle MS	41	UNIVEN / UL	I.2%	14.3%
Shaw I	41	VUT / UJ	I.2%	15.4%
Kruger PE	38	UP / UNISA	1.1%	16.5%
Khoza LB	37	UNIVEN	1.1%	17.6%
Lekhuleni M	30	UL	0.9%	18.5%

# Prof Surijlal published 113 papers in AJHPES over the past 11 years



#### African Journal of Business Management

The AJBM is an open access journal published by Academic Journals in Lagos, Nigeria. It is one of the journals that we flagged because of the anomalous increases in its publications over very short time frames thereby raising the question about their capacity to undertake rigorous and appropriate peer review. Truth records how the journal has expanded exponentially between 2007 and 2011: 'In 2011 it reached a startling 13,579 pages, and has grown by some 28% in 2012. In 2010, its total volume was 4,229 pages, while in 2009 it had 997 pp., in 2008 242 pp., and in its founding year 2007, 243 pp'. Thomson-Reuters was asked in 2010 to review the AJBM and finally removed the journal from its list in Feb. 2012, some 18 months after serious questions regarding the journal's practices were submitted to the knowledge firm.

#### AJBM



A total of 451 papers with SA authors were published in the journal between 2005 and 2014. These papers were produced by a total of 443 unique authors. The vast majority of authors produced only one or a fraction of a paper. A few authors produced larger numbers. In the Table below we list the authors (in descending order) who have published 6 or more papers in the journal.

Surname	Initial	Nr of papers
Ukpere	WI	69
FATOKI	0	14
Rust	AA	9
Visagie	JC	7
Mpinganjira	М	7
Odeku	К	7
Dorasamy	Ν	6
Roberts-Lombard	Μ	6
BRUWER	JP	6

Prof. Ukpere is the Editor in Chief of the journal. In 2011 he authored or coauthored 23 articles and in 2012 he contributed 41 papers to his own journal. He is professor of Industrial Psychology and People Management at UJ



When you rely on incentives, you undermine virtues. Then when you discover that you actually need people who want to do the right thing, those people don't exist.—Barry Schwartz, Swarthmore College (Zetter, 2009)

#### How did we get to this point?

#### A combination of factors

- We would argue that at least three sets of factors contributed to the current state of affairs:
- I. A culture of performance management that pervades every aspect of our academic culture
- 2. An incentive and reward system that now produce perverse, unintended consequences
- 3. And in the specific case of scholarly publishing the opportunities for fraudulent and unethical practices that have opened up through the digital and OA movements.

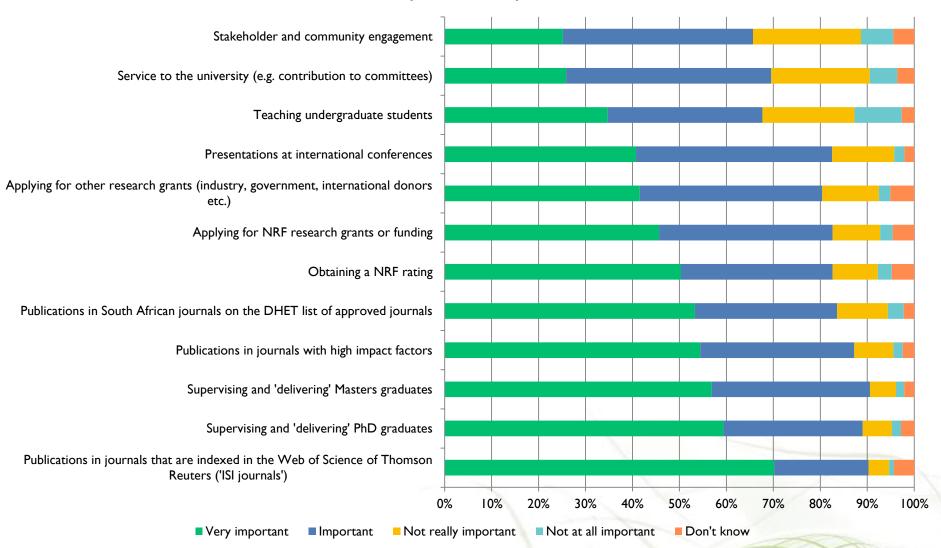
One should also add that these factors thrive in a climate of financial austerity in HE that in itself fuels unhealthy competition amongst academics and scholars and force universities to focus on quantity and volume rather than quality and value.

# An all pervasive culture of performance management

Arithmomania: Academic performance or success is now regularly equated with some score or a metric. And perhaps more specifically – metrics that privilege counts, outputs and numbers. Qualitative aspects of academic work – which by definition cannot be reduced to simple measures such as publication counts, h-indices of journal impact factors – are conveniently ignored. We are not asked – in our university – to report on our contribution to scholarship, practice or policy OR the relevance of our work for society OR whether our research is interesting and attractive to emerging scholars. Only: how many subsidy-bearing outputs do we produce and how to increase these!

**Arithmomania** is a mental disorder that may be seen as an expression of obsessivecompulsive disorder (OCD).<sup>[</sup>Individuals suffering from this disorder have a strong need to count their actions or objects in their surroundings.

#### How important are the following aspects of research - especially in the context of promotion at your university?



#### Perverse (unintended) consequences

Academics are (also) human beings that respond to incentives. In universities across the world, academics are incentivized to work hard in order to get their PhD's, achieve tenure and get promoted. In South Africa we have two additional incentive schemes that further drive these behaviours: the NRF rating scheme and the DHET research subsidy scheme.

In recent study on the effect of incentives in American academia, Edwards and Roy (2017: Academic Research in the 21st Century: Maintaining Scientific Integrity in a Climate of Perverse Incentives and Hyper competition) the authors (see overleaf) show how good intentions very often give way to bad behaviour.

TABLE 1. GROWING PERVERSE INCENTIVES IN ACADEMIA

Incentive	Intended effect	Actual effect		
"Researchers rewarded for increased number of publications."	"Improve research productivity," provide a means of evaluating performance.	"Avalanche of" substandard, "incremental papers"; poor methods and increase in false discovery rates leading to a "natural selection of bad science" (Smaldino and Mcelreath, 2016); reduced quality of peer review		
"Researchers rewarded for increased number of citations."	Reward quality work that influences others.	Extended reference lists to inflate citations; reviewers request citation of their work through peer review		
"Researchers rewarded for increased grant funding."	"Ensure that research programs are funded, promote growth, generate overhead."	Increased time writing proposals and less time gathering and thinking about data. Overselling positive results and downplay of negative results.		
Increase PhD student productivity	Higher school ranking and more prestige of program.	Lower standards and create oversupply of PhDs. Postdocs often required for entry-level academic positions, and PhDs hired for work MS students used to do.		

# How digital publishing and the OA movement have "enabled" unethical behaviour

It is important to emphasize that the digitization of publishing and the advent of OA journals and books are in and by themselves progressive forces. These "movements" have greatly increased access to knowledge, improved participation in and even the democratization of publishing through more transparent peer-review processes.

However, as is often the case, they also contain(ed) in themselves the potential for misuse and abuse by unscrupulous publishers, editors and other actors who are intent only on profiting from these through whatever means of deception and misrepresentation.

#### In conclusion: What to do?

Not surprisingly – given the complexity and the scale of unethical practices – we need a multi-facetted response that must include:

- Increased awareness raising and education of (young) scholars
- Improved quality control and "surveillance" of current and new forms of unethical practices
- Clear sanctions and penalties for those who intentionally and continuously violate the rules of ethics and integrity in scholarship.



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#### Thank you