

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

Predatory publishing and other questionable publication practices in SA

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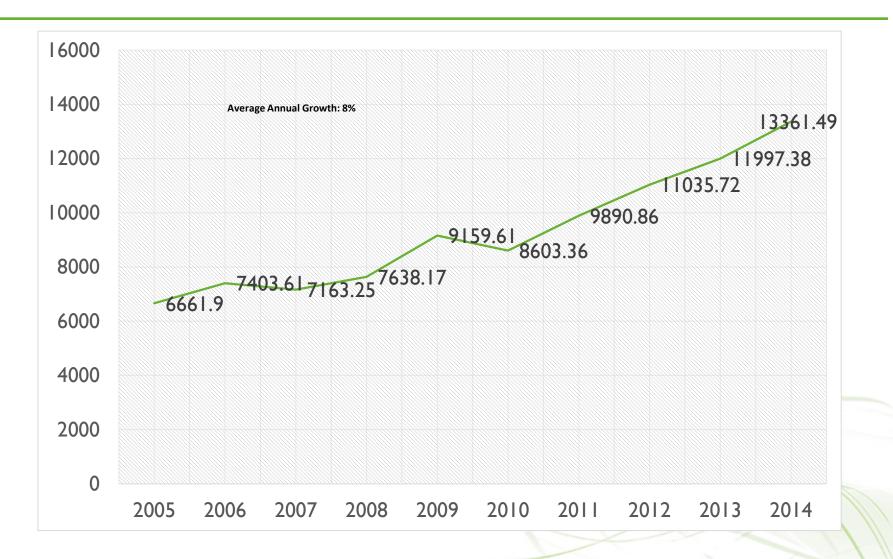
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Background and problem

The background

Since the revision of the DHET funding scheme in 2005, SA university production of journal articles has increased at an average annual growth rate of 8.8%. The result (see overleaf) is that by 2014 total article units (fractional counts) reached 13300+ (double that in 2005).

Trends in journal article production (Fractional units: 2005 – 2014)



The problem

Anecdotal evidence in recent years has suggested that this increase has been accompanied by a concomitant increase in questionable if not unethical publication practices.

- The infamous Mediterranean Journal of Social Sciences Journal case (Thomas, A. 2015)
- The case of purported plagiarism in SA business journals. (Thomas, A. & de Bruin, G.P. 2015)
- The case of the African Journal of Business Management and widespread publication in other business and economics journals that are listed as "predatory" (Beall, J. 2012)

Basic statistics on SA journal publishing

Publication density of SA journals

Journal	Papers	Share	Cum %
AJPHERD: African Journal for Physical, Health			
Education Recreation and Dance (now			
AJHPES)	1225	1.1%	1.1%
SAMJ: South African Medical Journal	1108	I.0%	2.1%
HTS Theological Studies	997	0.9%	2.9%
PLoS One	995	0.9%	3.8%
South African Journal of Science	875	0.8%	4.6%
South African Journal of Higher Education	790	0.7%	5.3%
Acta Crystallographica Section E: Structure			
Reports Online	729	0.6%	5.9%
South African Journal of Botany	695	0.6%	6.6%
South African Family Practice	635	0.6%	7.1%
Journal of Public Administration	616	0.5%	7.7%

Publication density of SA journals

Journal	Papers	Share	Cum %
Journal of Psychology in Africa	581	0.5%	8.2%
STJ: Stellenbosch Theological Journal	562	0.5%	8.7%
Water SA	548	0.5%	9.2%
Journal of Contemporary Roman-Dutch Law	538	0.5%	9.6%
SADJ: Journal of the South African Dental Association	510	0.5%	10.1%
Journal of Social Sciences	485	0.4%	10.5%
Journal of South African Law	462	0.4%	10.9%
African Journal of Biotechnology	45 I	0.4%	11.3%
Alternation	445	0.4%	11.7%
African Journal of Business Management	438	0.4%	12.1%
In Die Skriflig	432	0.4%	I 2.5%
Acta Academica	417	0.4%	12.8%
Obiter	416	0.4%	I 3.2%
Verbum et Ecclesia	415	0.4%	13.6%
Tydskrif vir Geesteswetenskappe	394	0.3%	I 3.9%

SA papers in predatory journals

Abuse of peer-review in predatory publishing

The demand to publish and to perform in highly competitive environments have led to different kinds of perverse consequences: salami publishing, increase in plagiarism and self-plagiarism and a host of unethical authorship practices (such as ghost authorship).

Arguably one of the biggest threats to the integrity of the peer-review process, has been the advent of predatory publishing (and spin-offs such as predatory conferences, hijacked journals and so on).

What is predatory publishing?

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



Predatory journals usually include editors or editorial board members with no or fake academic affiliations, lack of clarity about fees, publisher names and journal titles with geographic terms that have no connection to the publisher's physical location or journal's geographic scope, bogus impact factor claims and invented metrics, and false claims about where the journal is indexed.



The watchdog – Jeffrey Beall



Beall maintains two lists: A list of standalone predatory journal titles (1220 currently) and a list of predatory publishers. The latter list is much more comprehensive but at the same time much less reliable. We estimate that there are currently just over 900 active publishers on Beall's list.

If one sums the number of journals listed under these publishers, the number comes to a staggering 23 400+ titles!

US Federal Trade Commission has taken an interest in these "predatory" publishers

https://www.wired.com/2016/09/ftc-cracking-predatory-sciencejournals/

"Specifically, they've honed in on OMICS Group, a global conglomerate based in India and incorporated in Nevada that boasts more than 700 "leading-edge, peer reviewed" open access journals <u>on its website</u>. In a historic first for the FTC, the agency is suing the company, alleging that it misrepresented the legitimacy of its publications, deceived researchers, and obfuscated sizeable publication fees. <u>The lawsuit, filed last month</u>, will set a precedent for how the academic publishing industry is regulated, and how the body of scientific work that constitutes our collective understanding of the world is created and shared in the age of open access information."

The extent of predatory publishing in SA

We analysed the 112 555 individual papers produced by SA authors over the period 2005 to 2014. A comparison with Beall's list showed that 29 journals included in his List of Standalone Predatory Journals appeared in our database.

Of these, we eliminated one (the International Journal of Electrochemical Science) as we believe that this journal has been erroneously blacklisted as a predatory journal

The extent of predatory publishing in SA

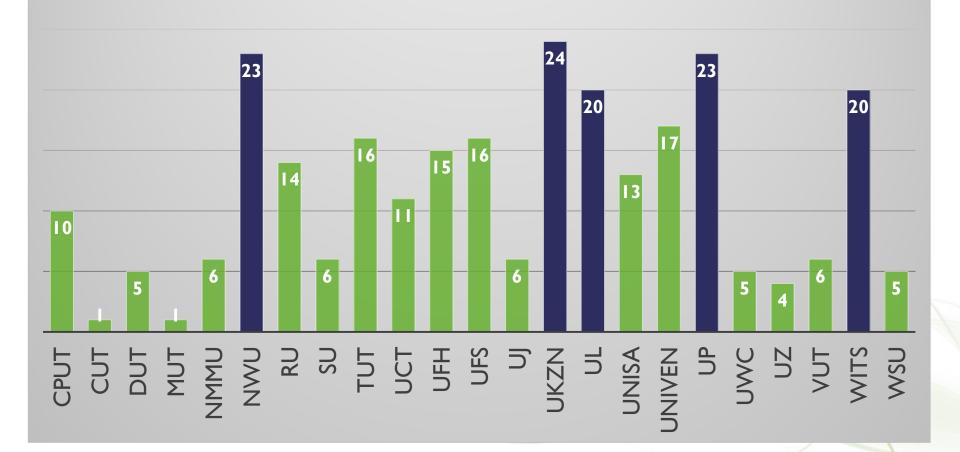
The remaining list of 28 journals (overleaf) contained exactly 659 articles. It should be noted that 388 of these (which were published in MJSS) were submitted to DHET but were not subsidized. Of the remaining articles, if these had been submitted for funding subsidy to the DHET, and if all were granted subsidy, it means that an amount of approximately R 27 million would have been paid out over the past 10 years to papers that appeared in predatory journals.

BUT – as we will indicate later – the picture is more complicated than this!

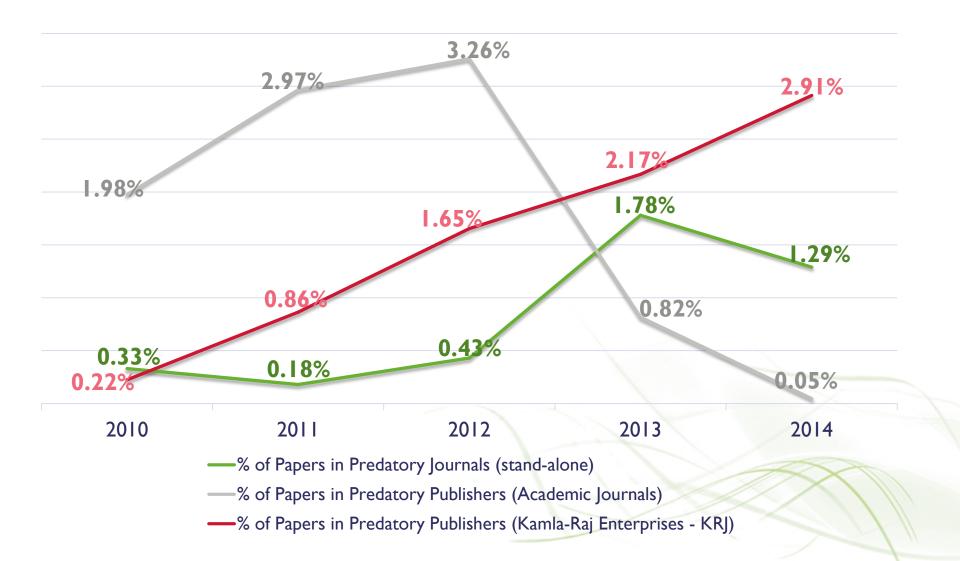
		Papers in Predatory Journals per Year									
Predatory Journal according to Beall	SA <u>Papers</u>	2005									2014
Actual Problems of											
Economics	13								4	8	
African Journal of											
Traditional,											
Complementary and											
Alternative Medicines	91			5	4	5	10		19		26
Archives Des Sciences	15									15	
Asian Journal of Chemistry	33			-			2	5		16	6
International Journal of											
Sustainable Development	13								4	7	2
Journal of Animal and Plant											
Sciences								2	2	2	4
Journal of Natural											
Products	29	2		3	4	2	5	4	5		4
Mathematical and											
Computational											
Applications	19						19				
Mediterranean Journal of											
Social Sciences	406								18	220	168
					\geq					1	

Papers in predatory journals by university

Papers in Predatory Journals (excl MJSS)

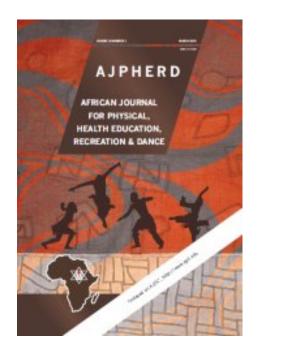


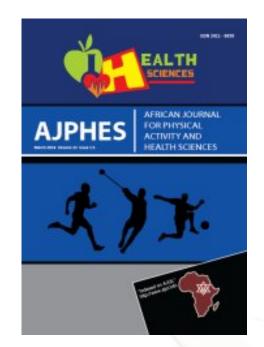
The extent of predatory publishing in SA



Questionable research practices?

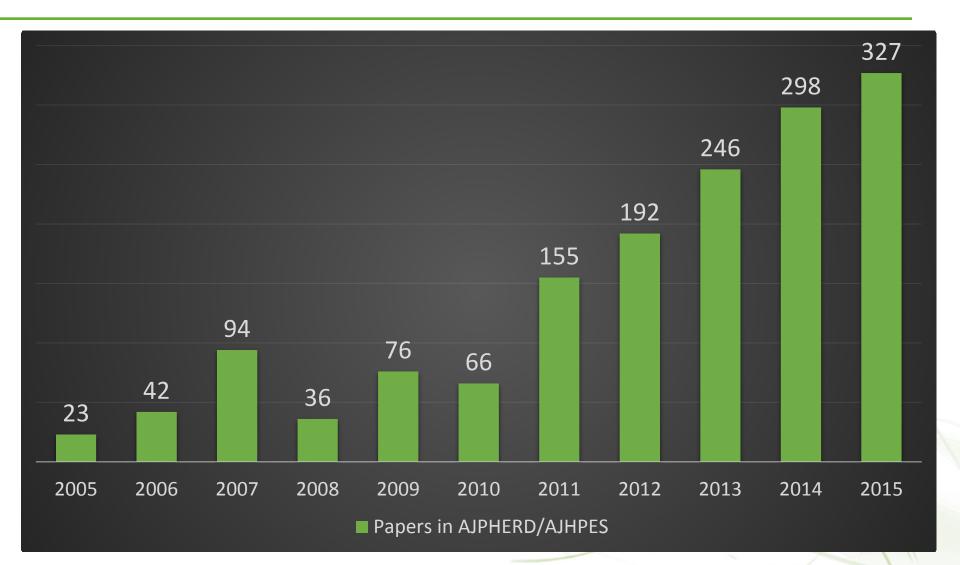
The South African Journal that published the most articles between 2005 and 2014





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

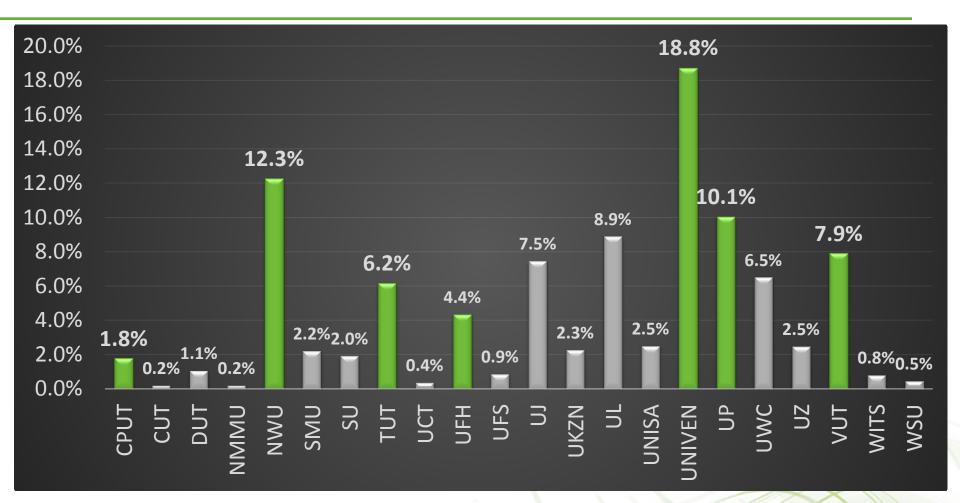
Increase in number of papers by year (AJHPES)



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	- 11	18	79
UKZN	16	20	9	12	I.	58
Sefako Makgatho Health Sciences University (SMU)					78	78
CPUT	1	26	П	10	14	62

AJPHERD / AJHPES: % of Papers per university

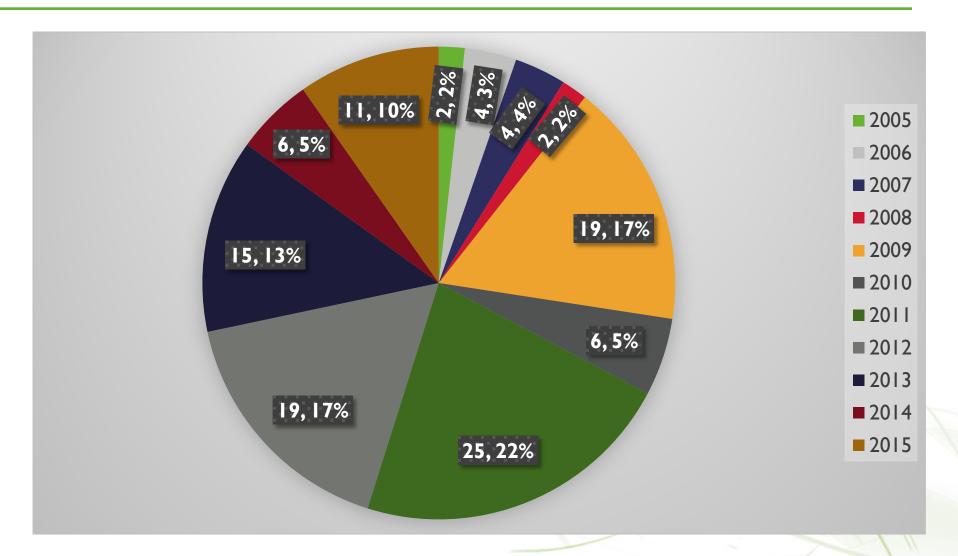


<u>Note</u>: The editorial board consists of members from the following South African universities (past & present): UNIVEN, NWU, VUT, UFH, UP, TUT & CPUT (= 63.9%)

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	I.6 %	10.4%
Goon DT	50	UNIVEN / TUT /		
	50	UFH	I.4%	II.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



Concluding observations

How to define questionable publication practices (QPP's)?

There are at least three publication practices which we believe should be classified as questionable (if not unethical):

- Unacceptable levels of publication intensity by the <u>editor</u> or a <u>member of the editorial board (in their journal)</u>
- Unacceptable publication intensity by an <u>individual</u> in the journal (for example publication of excessively large number of papers (more than 2 (?) in the same issue
- "Publication cartels" where two or more individuals (some times also members of the editorial board) co-author repeatedly in the same journal

Questionable and/but not unethical?

Why not "unethical practices"? The term "unethical" suggests some notion of "intent to defraud" or "intent to break the rules" which presupposes some knowledge of the rules of the game. And the problem is that there is still some degree of ambiguity surrounding these rules. This applies both to the rules or criteria of accreditation and Beall's rules about predatory journals and publishing.

Issues around accreditation

A first caveat speaks to the issue of accreditation or listing on accredited indexes. Journals that were accredited at some stage (through inclusion in the WoS or IBSS) may be de-accredited later.

A case in point is the Mediterranean Journal of the Social Sciences which was removed from the WoS in 2012. Unless universities monitor these lists every year, they may continue to submit articles for subsidy in these cases and hence "violate" one of the core rules of the current funding framework.

Why this is problematic also relates to the bigger issue surrounding the rules of inclusion that WoS uses in accrediting and de-accrediting (or delisting) journal titles.

Issues around Beall's list

It seems as if Beall may "blacklist" a journal simply if it is removed (even temporarily) from the WoS for reasons not related to predatory publishing (A case in point is the *International Journal of Electrochemical Sciences*)

As we have indicated Beall has two lists: a list of Standalone Predatory journals (n = 1220) and a list of Predatory Publishers ($n > 23\ 000$) There have been question marks about the latter list where it seems that Beall would include every single journal title that is listed by a "predatory publisher" on this list. However, there have been cases where some individual journals of a predatory publisher has been shown to be a legitimate journal.

QPP's and subsidy

Accredited & Not Predatory	QUALIFY FOR SUBSIDY
Accredited & Predatory	SHOULD NOT QUALIFY FOR SUBSIDY
Accredited & Questionable practices	SUBSIDY?
Not accredited & Predatory	DO NOT QUALIFY FOR SUBSIDY
Not accredited & Not predatory	DO NOT QUALIFY FOR SUBSIDY

In conclusion: The perverse consequence of the "Publish or perish" imperative

The enormous pressure to publish and publish fast — preferably in the very best journals — influences both authors and editors. This pressure exists almost everywhere but is particularly intense in Asia (China and India). It is therefore no surprise that the most inventive ways to game the peer-review system to get manuscripts published have come from China and India. This situation is no less true in South Africa where we have for some time now seen the pervasive effects of the DHET funding system in combination with the NRF rating system. The problem is the perverse incentive systems in scientific publishing. As long as authors are (mostly) rewarded for publishing many articles and editors are (mostly) rewarded for publishing them rapidly, new ways of gaming the traditional publication models will be invented more quickly than new control measures can be put in place.

So what should we do?

- We need to establish more timely alert systems to assist universities (and their research offices) to identify cases of clear predatory publishing before submitting for publication subsidies
- We need ongoing analysis of SA publication practices to identify cases of questionable publication and again to alert the DHET and university research offices to such practices
- We need to run more workshops in basic bibliometrics (understanding the publication and citation behaviour; the dangers of unethical and questionable practices in scientific authorship and especially of predatory publishing) for all students and emerging scholars.

It is imperative that we protect the integrity of our publication system and hence also of the funding system. Growth in output must go hand in hand with proper quality and ethical "surveillance".



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Thank you