

Counting the Dollars: Estimating campus-wide spend on article processing charges

Roger Reka
Leddy Library, University of Windsor

What we're covering

- Background & context
- The problem
- The solution
- How we used it
- How we can improve

Context

Changing business models, and the
“Transformative Agreement”

So what? The value to us



Image: *British moths and their transformations*, Biodiversity Heritage Library

How universities track APC spend



Pay APC fees

Collect data on
APC payments

Do nothing

We need to ***estimate***
the APC spend

The Method

Step 1:

**Collect
publication
data**

Step 2:

Filter

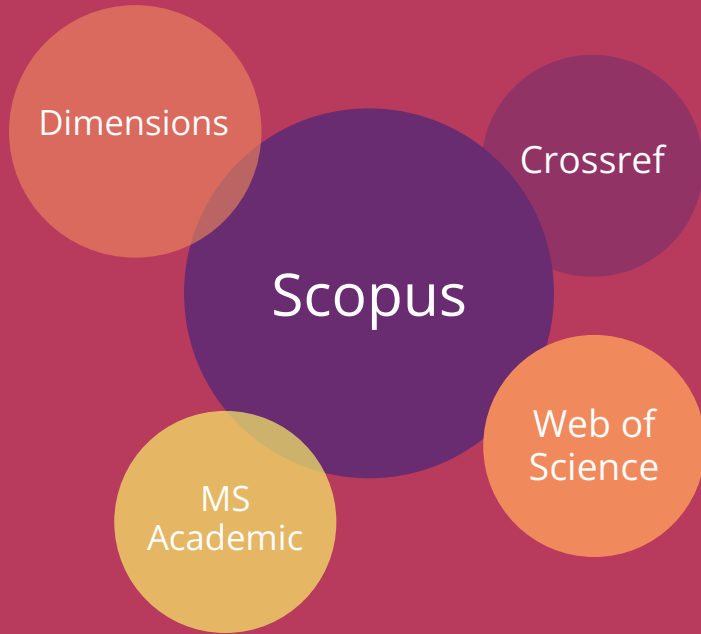
Step 3:

**Collect APC
data**

Step 4:

Analyze

Step 1: Collect publication data



Database requirements

- Bibliographic data for journal articles
- Metadata:
 - Corresponding author
 - Open Access indicator*

Step 1: Collect publication data

Corresponding Author

Open Access

Scopus

Web of Science

Crossref

Dimensions

MS Academic



Step 1: Collect publication data

Scopus - Document search results

scopus.com/results/results.uri?sort=plf-f&src=s&nlo=&nlr=&nls=&sid=30fe25a64ba17c519f2101921e10a9...

Scopus Search Sources Lists SciVal

Create account Sign in

3,119 document results



AF-ID ("University of Windsor" 60012468) OR AF-ID ("Assumption University Windsor" 60027419) OR AF-ID ("Great Lakes Institute for Environmental Research" 60190569) OR AF-ID ("Odette School of Business" 60190568) AND (LIMIT-TO (PUBYEAR , 2022) OR LIMIT-TO (PUBYEAR , 2021) OR LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019))

Edit Save Set alert

Search within results...

Analyze search results Show all abstracts Sort on: Date (newest)

All Export Download View citation overview View cited by Add to List

	Document title	Authors	Year	Source	Cited by
1	Synthesis and characterization of ZnGa ₂ O ₄ composites and its photocatalytic properties for energy applications	Nathiya, D., Alhaji, N.M.I., Mohamed Jahangir, A.R., (...), Zehra, S., Ayeshamariam, A.	2022	Environmental Research 204,112073	0
View abstract  Related documents					
2	Impact of Au ₁₄₄ metal clusters on the structural and inhibitory mechanism of Aβ ₄₂ peptide: A theoretical approach	Saranya, V., Shankar, R., Gatashah, M.K., Zehra, S.	2022	Environmental Research 204,111920	0
View abstract  Related documents					
3	Share of Attention: Exploring the Allocation of User Attention to Consumer Applications	Rieser, L., Furneaux, B.	2022	Computers in Human Behavior 126,107006	0
Open Access					

Refine results

Limit to Exclude

Open Access

- All Open Access (914)
- Gold (402)
- Hybrid Gold (118)
- Bronze (198)
- Green (507)

Learn more

Year

- 2022 (3)
- 2021 (915)
- 2020 (1,093)

Step 2: Filter



**Corresponding
author**

- Why articles only with an affiliated corresponding author?
- Also available: fractional authorship

Step 2: Filter



**Gold Open Access
articles**

- Immediate Open Access
- Author is paying

Step 3: Collect APC data



- Go to journal website, find the APC for the journals
 - Warning: tedious!
- Alternatives:
 - Directory of Open Access Journals (DOAJ)
 - Open datasets from bibliometricians

Step 4: Analyze

Summary
statistics

Looking at
publishers

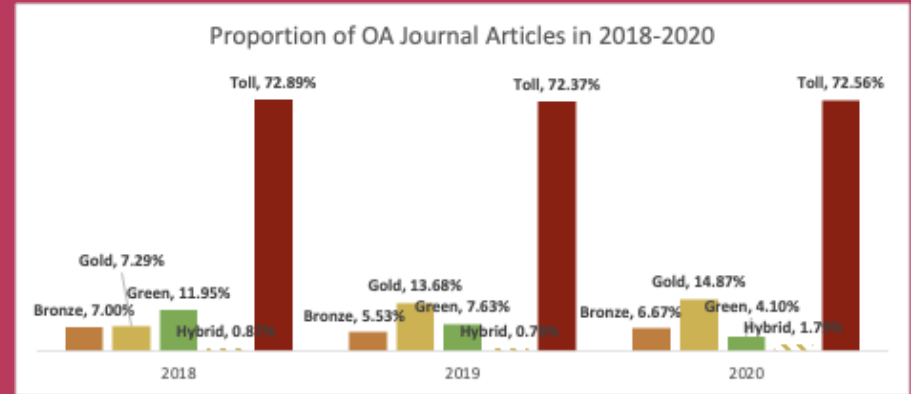
Funded vs
unfunded
research

Open Access
publication
trends

APC spend
calculations

Results at the University of Windsor

- Most authors choose to keep their articles behind paywalls
- The most popular publishers differ when considering OA
- Most OA articles are funded



Results at the University of Windsor

- Annual spend on APCs is increasing year over year, but low for the big commercial publishers

Year	Estimated APC spend	
2018	CAD	60,943.18
2019	CAD	119,570.86
2020	CAD	135,035.28
Grand Total	CAD	315,549.32

Publisher	Estimated APC Spend (2018 – 2020)	
MDPI	CAD	129,310.00
Elsevier	CAD	27,047.40
Frontiers Media S.A.	CAD	24,631.80
Wiley	CAD	21,228.00
SAGE Publications	CAD	20,740.00
IEEE	CAD	14,945.00
BioMed Central Ltd.	CAD	13,237.00
Public Library of Science	CAD	11,676.62
Nature Research	CAD	9,711.20
Copernicus GmbH	CAD	6,879.60
Hindawi Limited	CAD	5,124.00
Springer	CAD	4,965.40
Cell Press	CAD	4,636.00
JMIR Publications Inc.	CAD	3,599.00
Arctic Institute of North America	CAD	3,200.00

Putting this into action

Informing partners
about APC spend

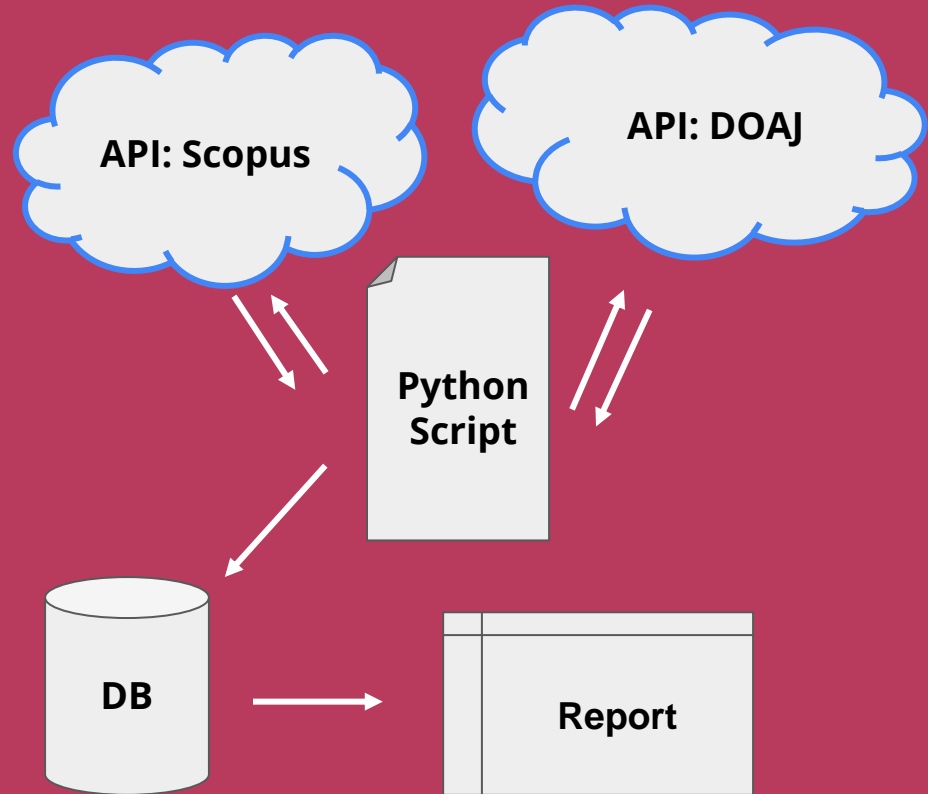
Rationalizing “Big
Deal” offers

Educating
researchers

More informed
negotiations

Next steps: better metadata, more automation

- Useful information, but tedious work
- Improved metadata
 - Open bibliographic data
 - Better Open Access metadata
 - Better, centralized APC data



Questions & Answers



Stay in touch!



CRKNanalytics



roger.reka@uwindsor.ca