

# Leitura e avaliação científica de artigos e pré-prints

Alicia J. Kowaltowski

Ariel M. Silber

João Vítor Cabral Costa

(ordem alfabética)

Alicia:

Types of publications:

Publishers

Type of papers

The process of submission and peer review in scientific journals

How much is the right amount and when is the right time to publish your data?

**Scientists as writers...**

How much is the right amount and when is the right time to publish your data?

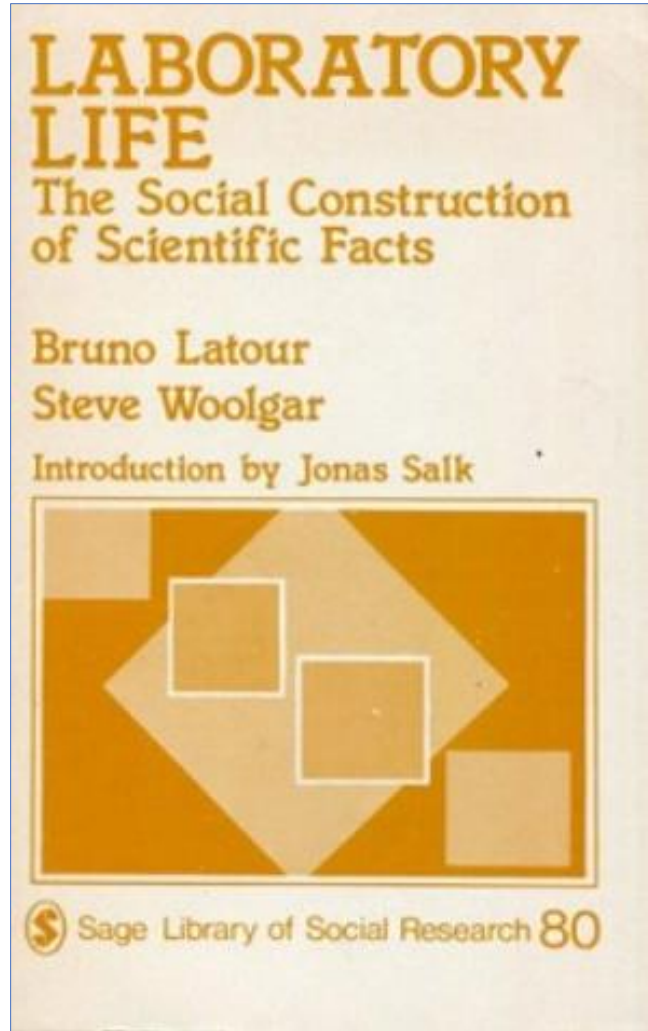
Scientists as writers...

***Laboratory Life: The Construction of Scientific Facts*** (1979) by sociologists of science Bruno Latour and Steve Woolgar.

How much is the right amount and when is the right time to publish your data?

Scientists as writers...

***Laboratory Life: The Construction of Scientific Facts*** (1979) by sociologists of science Bruno Latour and Steve Woolgar.

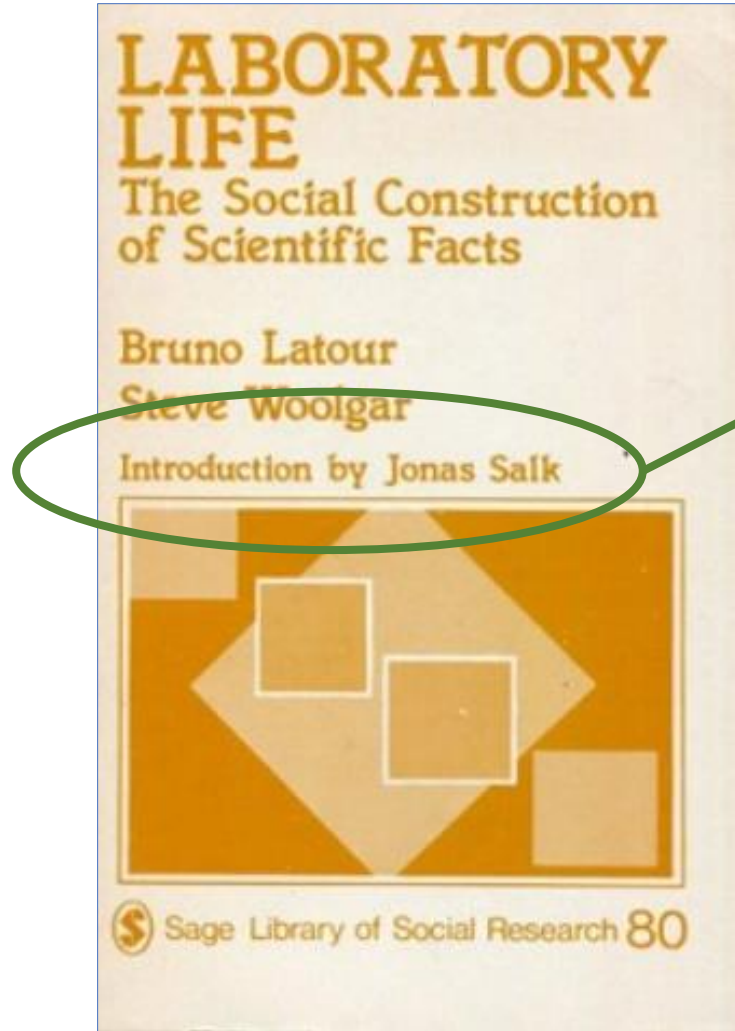


Cover of the 1st. Edition.

How much is the right amount and when is the right time to publish your data?

Scientists as writers...

***Laboratory Life: The Construction of Scientific Facts*** (1979) by sociologists of science Bruno Latour and Steve Woolgar.



Cover of the 1st. Edition.

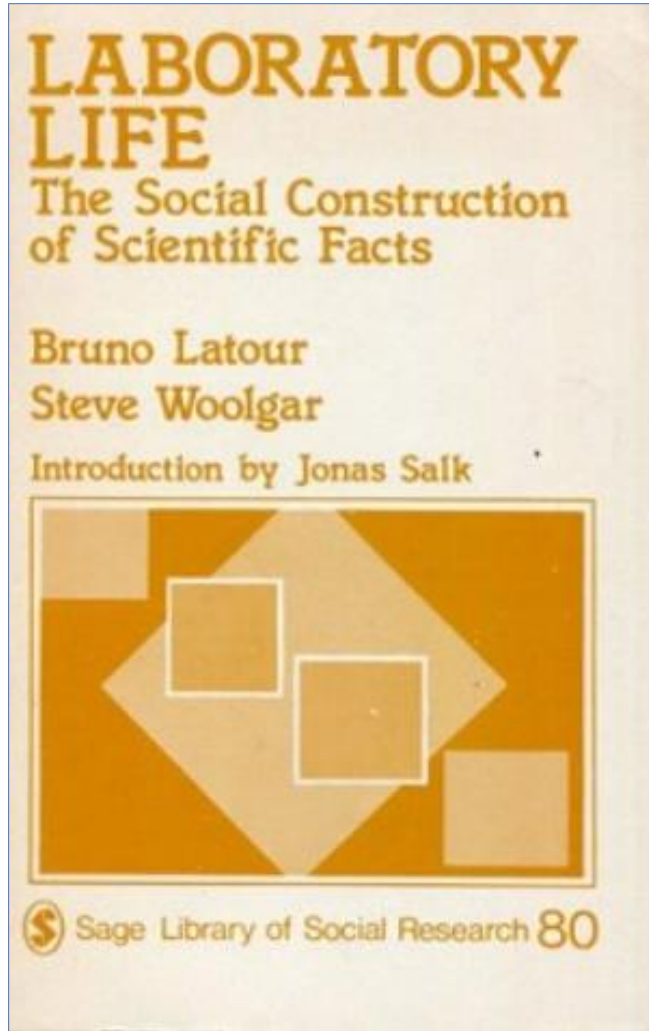
Intro by Jonas Salk!

How much is the right amount and when is the right time to publish your data?

Scientists as writers...

***Laboratory Life: The Construction of Scientific Facts*** (1979) by sociologists of science Bruno Latour and Steve Woolgar.

Thesis of the book:  
Scientists = Writers



How much is the right amount and when is the right time to publish your data?

Thesis of the book:

Scientists = Writers

Scientists are story tellers with peculiarities:

1. The stories must be based on scientifically established (experimental or theoretical) facts;
2. There are rules that constrains the format of our story (length, structure, etc.).



How much is the right amount and when is the right time to publish your data?

**No rules to decide how much and when...**

How much is the right amount and when is the right time to publish your data?

No rules to decide how much and when...

Some questions as a guide:

1. Does your story have a beginning, development and end with relevant conclusions for your field?

How much is the right amount and when is the right time to publish your data?

No rules to decide how much and when...

Some questions as a guide:

1. Does your story have a beginning, development and end with relevant conclusions for your field?
2. Let your story rest for a while (you will always have other things requiring your attention). After coming back and critically looking at it, does you feel that there are gaps?

How much is the right amount and when is the right time to publish your data?

No rules to decide how much and when...

Some questions as a guide:

1. Does your story have a beginning, development and end with relevant conclusions for your field?
2. Let your story rest for a while (you will always have other things requiring your attention). After coming back and critically looking at it, does you feel that there are gaps?
3. Does it raise the interest of your colleagues in the area as it is? And colleagues in other areas?

How much is the right amount and when is the right time to publish your data?

No rules to decide how much and when...

Some questions as a guide:

1. Does your story have a beginning, development and end with relevant conclusions for your field?
2. Let your story rest for a while (you will always have other things requiring your attention). After coming back and critically looking at it, does you feel that there are gaps?
3. Does it raise the interest of your colleagues in the area as it is? And colleagues in other areas?
4. Did you already presented your story as a seminar? Did you have a feedback?

How much is the right amount and when is the right time to publish your data?

No rules to decide how much and when...

Some questions as a guide:

1. Does your story have a beginning, development and end with relevant conclusions for your field?
2. Let your story rest for a while (you will always have other things requiring your attention). After coming back and critically looking at it, does you feel that there are gaps?
3. Does it raise the interest of your colleagues in the area as it is? And colleagues in other areas?
4. Did you already presented your story as a seminar? Did you have a feedback?
5. Trust in your intuition BUT pay attention to the comments of colleagues in which you trust (and remember, their politeness in this case is an enemy!!!)

How much is the right amount and when is the right time to publish your data?

Tips:

Read a lot: this will refine your intuition and perception of what is expected in your field and in a broader area.

How much is the right amount and when is the right time to publish your data?

Tips:

Read a lot: this will refine your intuition and perception of what is expected in your field and in a broader area.

Try to identify in those papers that are letting you unsatisfied, the reason for this (uncomplete story, too many gaps, too much wishful thinking, others?)



How much is the right amount and when is the right time to publish your data?

Tips:

Read a lot: this will refine your intuition and perception of what is expected in your field and in a broader area.

Try to identify in those papers that are letting you unsatisfied, the reason for this (uncomplete story, too many gaps, too much wishful thinking, others?)

Prepare a seminar and record it for yourself.

How much is the right amount and when is the right time to publish your data?

Tips:

Read a lot: this will refine your intuition and perception of what is expected in your field and in a broader area.

Try to identify in those papers that are letting you unsatisfied, the reason for this (uncomplete story, too many gaps, too much wishful thinking, others?)

Prepare a seminar and record it for yourself.

Start writing ASAP knowing that many versions of your texts will go to the trash.

How much is the right amount and when is the right time to publish your data?

Tips:

Read a lot: this will refine your intuition and perception of what is expected in your field and in a broader area.

Try to identify in those papers that are letting you unsatisfied, the reason for this (uncomplete story, too many gaps, too much wishful thinking, others?)

Prepare a seminar and record it for yourself.


Start writing ASAP knowing that many versions of your texts will go to the trash.

Trust in your colleagues – circulate your manuscript!

## **Scientific literature and type of papers**


# Primary vs. secondary literature

**Primary:** publication of original scientific research



- Most of journal papers
- Conference proceedings
- Theses and Dissertations
- Methods development


**Secondary:** publication of condensed and reorganized primary literature



- Textbooks & Book Chapters
- Review articles
- Opinion articles
- Indexing and abstracting services
- Other


# Primary vs. secondary literature

**Primary:** publication of original scientific research



- Most of journal papers
- Conference proceedings
- Theses and Dissertations
- Methods development
- Etc.

**Secondary:** publication of condensed and reorganized primary literature



- Textbooks & Book Chapters
- Review articles
- Opinion articles
- Indexing and abstracting services
- Etc.

# Primary vs. secondary literature

**Primary:** publication of original scientific research

Most of journal papers  
Conference proceedings  
Theses and Dissertations  
Methods development  
Etc.

To share new findings with the community of experts

**Secondary:** publication of condensed and reorganized primary literature

Textbooks & Book Chapters  
Review articles  
Opinion articles  
Indexing and abstracting services  
Etc.

To compile and organize the information in the primary literature into an easily accessible and understandable format for a broader community

# Primary vs. secondary literature

**Primary:** publication of original scientific research

Most of journal papers  
Conference proceedings  
Theses and Dissertations  
Methods development  
Etc.

To share new findings with the community of experts

**Secondary:** publication of condensed and reorganized primary literature

Textbooks & Book Chapters  
Review articles  
Opinion articles  
Indexing and abstracting services  
Etc.

To compile and organize the information in the primary literature into an easily accessible and understandable format for a broader community

**Journals:** could be specialized in primary or secondary literature, or can publish both



# Primary vs. secondary literature

**Primary:** publication of original scientific research

Most of journal papers  
Conference proceedings  
Theses and Dissertations  
Methods development  
Etc.

To share new findings with the community of experts

**Secondary:** publication of condensed and reorganized primary literature


Textbooks & Book Chapters  
Review articles  
Opinion articles  
Indexing and abstracting services  
Etc.

To compile and organize the information in the primary literature into an easily accessible and understandable format for a broader community

**Journals:** could be specialized in primary or secondary literature, or can publish both.  
Info usually available in the journal homepage.

# Primary vs. secondary literature

## Primary: usual types



- Full-length papers or Research Articles
- Rapid communications
- Short communications
- Letters to the editor
- Case reports
- Technical or Laboratory notes
- Methods

## Secondary: usual types



- Review
- Short/Mini Review
- Opinion
- Commentary
- Perspectives
- News
- Editorial
- Others (Pearls, etc.)

# Primary vs. secondary literature

## Primary: usual types

- Full-length papers or Research Articles
- Rapid communications
- Short communications
- Letters to the editor
- Case reports
- Technical or Laboratory notes
- Methods

## Secondary: usual types


- Review
- Short/Mini Review
- Opinion
- Commentary
- Perspectives
- News
- Editorial
- Others (Pearls, etc.)

For formal definitions:




# Primary vs. secondary literature

## Primary: usual types



- Full-length papers or Research Articles
- Rapid communications
- Short communications
- Letters to the editor
- Case reports
- Technical or Laboratory notes
- Methods

## Secondary: usual types



- Review
- Short/Mini Review
- Opinion
- Commentary
- Perspectives
- News
- Editorial
- Others (Pearls, etc.)

Which criteria would you use for choosing a journal?

Which criteria would you use for choosing a journal?

## Choosing the Journal:

1. Scope
2. Type of Article
3. Type of Audience (board or specific)
4. Reputation
5. Not predatory!!!!

# Pipeline after submission:



The peer review process can be single-blind, double-blind, open or transparent.

## Editors are responsible for:

1. Assessing the pertinence and relevance of the topic for the journal
2. Assessing that the MS is scientifically sound
3. Detection of plagiarism, problems with data integrity or other possible misconducts (supported by staff and informatic tools provided by the publishers)
4. Choose Reviewers
5. Assess the quality and pertinence of the reviews
6. Make a final decision on the acceptance or not of the MS

## Reviewers are responsible for:

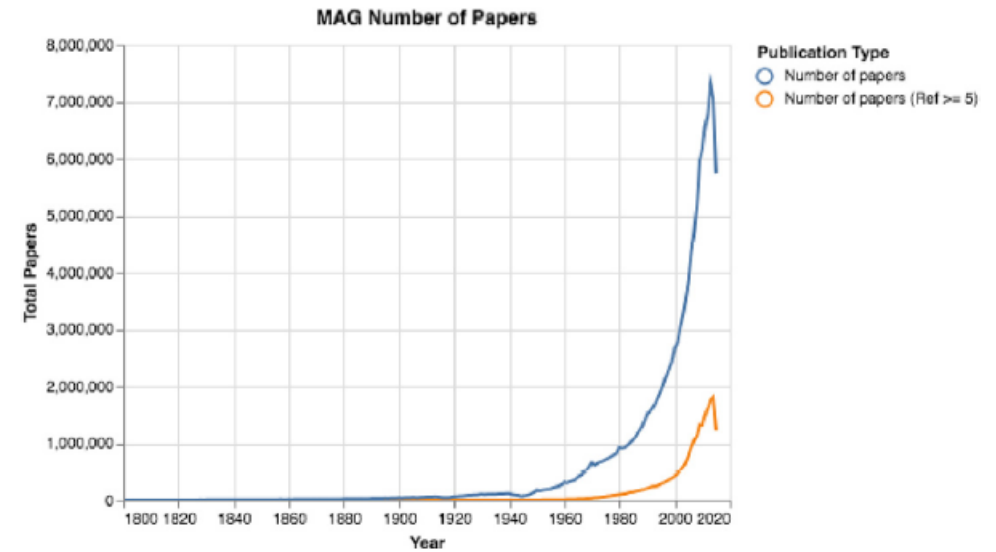
1. Assessing the science (relevance in the field, pertinent information and citations, experimental design, statistics, adequate interpretation of data, a coherent narrative, detecting overstatements)
2. Suggesting additional experiments, changes in the text, references, etc. in case of being necessary
3. ADVISE the Editor on the acceptability of a MS for publication

**IMPORTANT:** the Reviewer does NOT make a decision.



# The modern science produced an “explosion” of papers

Publication rates of scientific papers skyrockets (Bornmann & Mutz 2015).

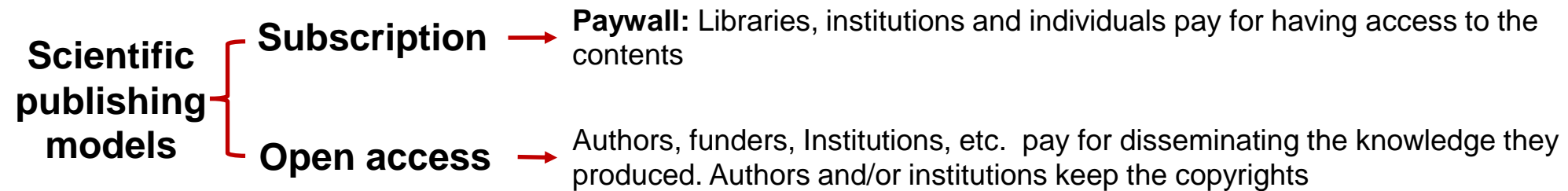


**Figure 1:** The number of papers over time. The total number of papers has surged exponentially over the years.

Fire & Guestrin, 2019, GigaScience



# Reformatting the scientific editorial industry: from subscriptions to Open Access (OA)

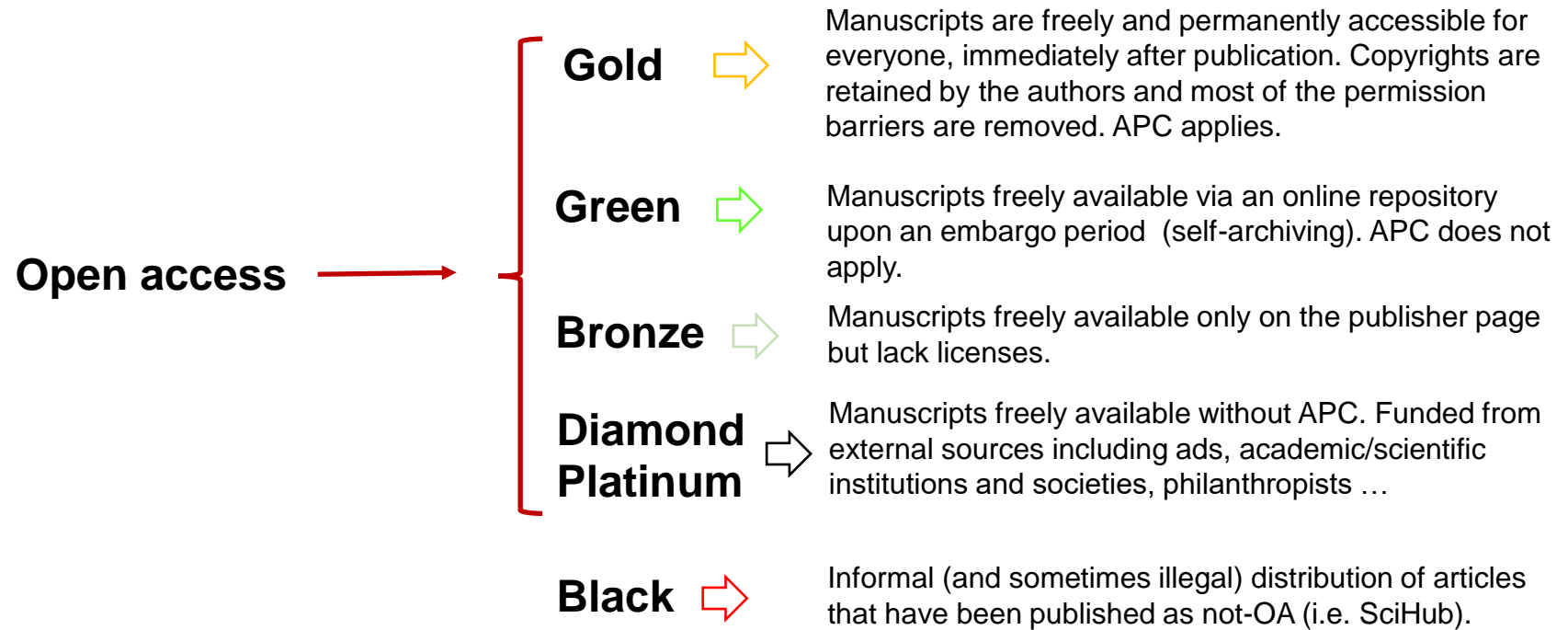


## The main ideas behind the OA movement:

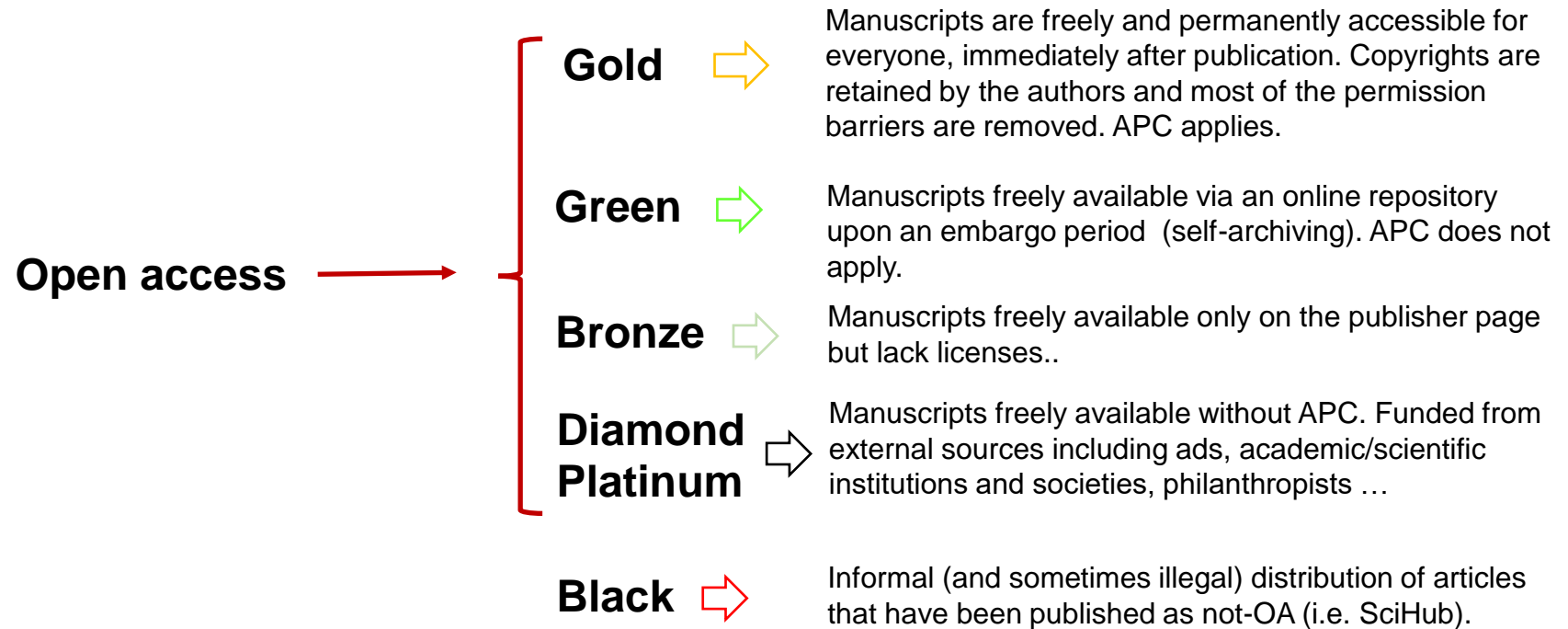
1. To make available the informations derived from our research to every single human being in the world
2. Authors would keep the copyrights, but...

**Authors must secure funds (preferably from funders) to pay the Article Processing Charges (APCs).**

# OA: different modalities



# OA: different modalities



**Most (in many areas, all) reputed OA journals are Gold**

**Reputation is (wrongly) based on IF**

# APCs go hand in hand with JIF

Scientometrics (2020) 124:2185–2206  
<https://doi.org/10.1007/s11192-020-03578-3>

<sup>1</sup> Institute of Economics, Technology University of Ilmenau, Ilmenau, Germany

<sup>2</sup> Institute of Media and Communication Science, Technology University of Ilmenau, Ilmenau, Germany

## Drivers of article processing charges in open access

Oliver Budzinski<sup>1</sup> · Thomas Grebel<sup>1</sup> · Jens Wolling<sup>2</sup> · Xijie Zhang<sup>1</sup> 

Received: 6 January 2020 / Published online: 1 July 2020  
© The Author(s) 2020

**Table 4** Correlation between the variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) APC	1							
(2) Hybrid	0.56*	1						
(3) Profit	0.13*	0.04*	1					
(4) JIF	0.31*	0.12*	− 0.06*	1				
(5) Big pub.	0.38*	0.29*	0.51*	0.03	1			
(6) Pub. age	0.23*	0.22*	− 0.20*	0.04*	0.48*	1		
(7) HHI	0.04*	− 0.01	− 0.08*	0.14*	− 0.10*	− 0.08*	1	
(8) No. of articles	0.11*	0.07*	− 0.09*	0.29*	− 0.07*	− 0.04*	0.09*	1

\**p*-values below 5%

<https://doaj.org/> > 12.000 journals

<https://openapc.net/> > 55.000 papers

# Knowledge is a very profitable commodity

Knowledge became one of the most profitable markets (Smith, 2005; Buranyi, 2017; Young et al., 2008).

**SPRINGER NATURE**

**Type** Privately held  
Kommanditgesellschaft auf Aktien with an Aktiengesellschaft as general partner

**Industry** Publishing

**Founded** 2015; 7 years ago

**Headquarters** London, UK (global)  
Berlin, Germany (corporate)  
New York City, USA (sales)

**Area served** Worldwide

**Key people** Frank Vrancken Peeters (CEO)

**Revenue** US\$1.72 billion (2019)

**Owners** Holtzbrinck Publishing Group (53%)  
BC Partners (47%)

**Number of employees** 10,000 (2019)

**Website** [www.springernature.com/fr](http://www.springernature.com/fr)

**Footnotes / references**  
[1]

**WILEY**

**Status** Active

**Traded as** NYSE: JWA (Class A)  
NYSE: JW.B (S&P 400 component (JW.A))

**Founded** 1807; 215 years ago  
New York City, United States

**Founder** Charles Wiley

**Country of origin** United States

**Headquarters location** Hoboken, New Jersey

**Distribution** Worldwide

**Nonfiction topics** Science, technology, medicine, professional development, higher education

**Revenue** US\$1.7 billion (FY 2017)

**No. of employees** 5,100

**Official website** [www.wiley.com](http://www.wiley.com)



**ELSEVIER**

**Industry** Publishing

**Founded** 1880; 142 years ago

**Headquarters** Amsterdam, Netherlands

**Revenue** £2.64 billion (2019)<sup>[1]</sup>

**Operating income** £982 million (2019)<sup>[1]</sup>

**Net income** £1.922 billion (2019)<sup>[2]</sup>

**Number of employees** 8,100<sup>[1]</sup>

**Parent** RELX

**Website** [www.elsevier.com](http://www.elsevier.com)

**Taylor & Francis Group**  
an informa business

**Parent company** Informa

**Status** Active

**Founded** 1852; 170 years ago

**Founder** William Francis  
Richard Taylor

**Country of origin** United Kingdom

**Revenue** £556M in 2020 with adjusted operating margin of 38.8%<sup>[4]</sup>  
£559.6M in 2019<sup>[4]</sup>

**No. of employees** 1,800<sup>[5]</sup>

**Official website** [taylorandfrancis.com](http://taylorandfrancis.com)



The branded McGraw Hill logo as of 2020

**Founded** 1888

**Founder** James H. McGraw  
John A. Hill

**Country of origin** United States

**Headquarters location** 1325 Avenue of the Americas  
New York City

**Key people** Simon Allen

**Publication types** Adaptive learning technology, Educational software, eBooks, Apps, Platform services, curriculum, and Books

**Revenue** ▲ \$1.72 billion (2017)

**Owner(s)** Platinum Equity

**No. of employees** 3,900 (2020)<sup>[1]</sup>

**Official website** [www.mheducation.com](http://www.mheducation.com)



**Formation** April 6, 1876; 145 years ago

**Type** Scientific society

**Legal status** 501(c)(3) nonprofit organization

**Headquarters** Washington, D.C.

**Location** United States

**Membership** more than 155,000

**President** Angela K. Wilson

**Key people** Thomas M. Connelly (Executive Director & CEO)<sup>[1]</sup>

**Budget** US\$528 million (2016)<sup>[2]</sup>

**Website** [www.acs.org](http://www.acs.org)

**CAMBRIDGE**  
UNIVERSITY PRESS & ASSESSMENT

**Parent company** University of Cambridge

**Status** Active

**Founded** 1534; 488 years ago

**Founder** King Henry VIII of England

**Country of origin** Kingdom of England (since 1534)

**Headquarters location** Cambridge, England

and learning; education; Bibles

**Revenue** £336 million (2020)

**No. of employees** 3,039; 58% are outside the UK

**Official website** [www.cambridge.org](http://www.cambridge.org)

Industry moving globally USD 25.2 Bi

Average profits >30%

Such attractive number produced an explosion in the number of scientific publishers


**publishersglobal** COUNTRIES ▾ SUBJECTS ▾ MEDIA ▾ LANGUAGE ▾

IED São Paulo

**Science Publishers' Directory**  
Listing 1 to 10 of 462 Science publishing companies

Page 1 of 47 of all the publishing houses listed in the directory of science publishers. To view a list of science publishing companies by country please [select a country](#).

Academic  
Action  
Adventure  
Agriculture  
Architecture  
Art



**Industry moving globally >USD 25.2 Bi**

**Average profits >30%**

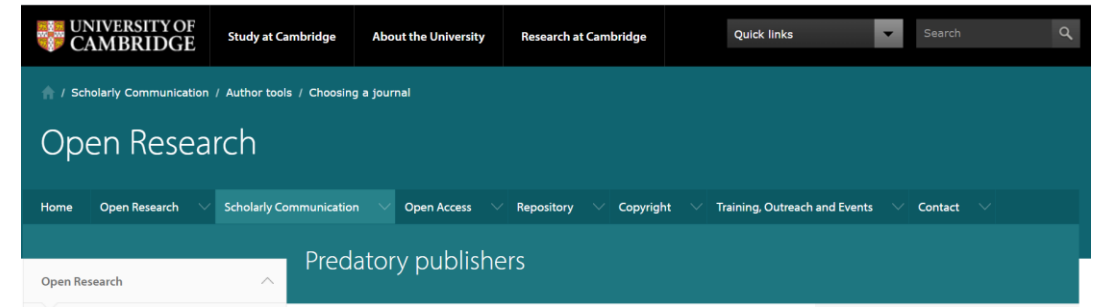
# Predatory scientific journals (and publishers)

Journals that charge a fee for the publication of material without providing the publication services an author would expect such as peer review and editing.

**Typically contact potential authors directly via email to offer their services and encourage publication**

What to check to avoid publishing in predatory journals:

1. Transparency about practices
2. Indexing
3. Quality of previous publications
4. No “hidden” fees popping up during the process
5. Clear copyright statement
6. Peer Review
7. Editorial Board
8. Informative and good quality Website



Thank you.

Ariel M. Silber

e-mail: [asilber@usp.br](mailto:asilber@usp.br)

 : @Ariel\_Lab



