

DIPARTIMENTO

FACOLTÀ DI GIURISPRUDENZA



Open Science and Research Data Management

Academic copyright: from the Republic of Science to the Empire of Intellectual Monopolies (Part II)

Università di Pisa 2024

Roberto Caso

Part I

- 1. The Republic of Science and the Academic Copyright
- 2. The Empire of Intellectual Monopolies
- 3. A New Hope: Open Science as Public and Democratic Science

Part II

- 1. The Empire Strikes Back
- 2. Return of the Jedi?

3. Conclusions

A Law & Political Economy approach

- «Building on the energy of the emerging law and political economy movement, the LPE Project aims to reconnect conversations about the economy to questions of dignity, belonging, and power. The Project aims to transform legal scholarship and pedagogy by centering issues of economic power, racial and gender subordination, and meaningful democratic inclusion. It aims to move beyond postwar models of the liberal wélfare state in order to develop new policy solutions, intellectual approaches, and political strategies adequate to the crises of our time»
- A. KAPCZYNSKI ET AL., New Law and Political Economy Project Launched, 29.04.2019, https://law.yale.edu/yls-today/news/new-law-and-political-economy-project-launched

Today. Outline

1. The Empire Strikes Back

2. Return of the Jedi?

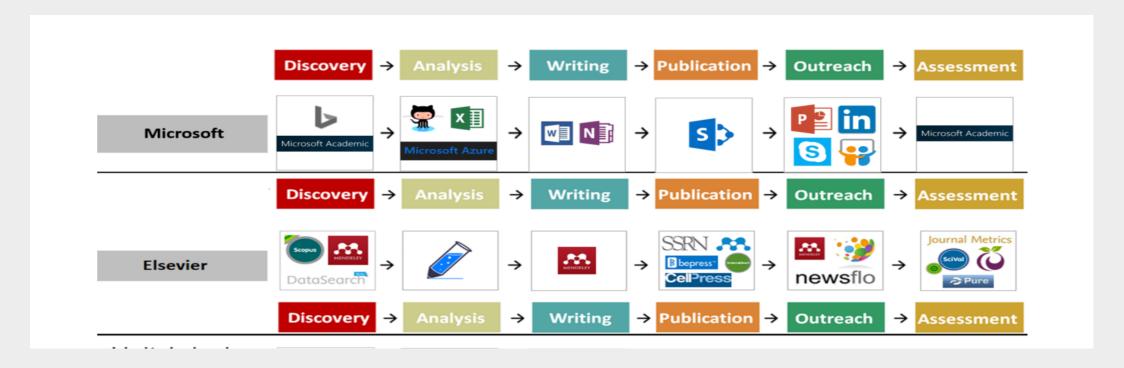
3. Conclusions

The empire strikes back

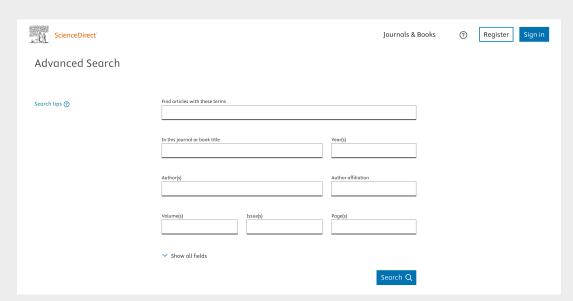


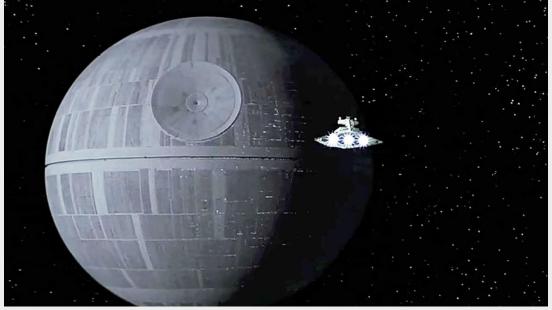
1. Brembs et al. Plan I (2021)

«While public institutions hesitantly deliberate, commercial providers act»

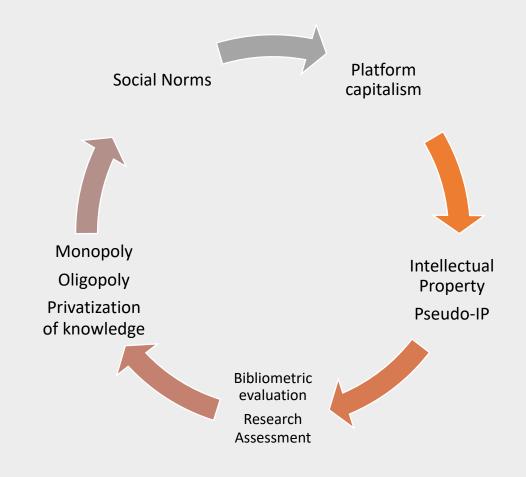


1. Scientific databases





1. A vicious circle



1. Pseudo-Intellectual Property

Contract

Database sui generis right (e.g. EU dir. 96/9)

 Technological Protection Measures

De facto power



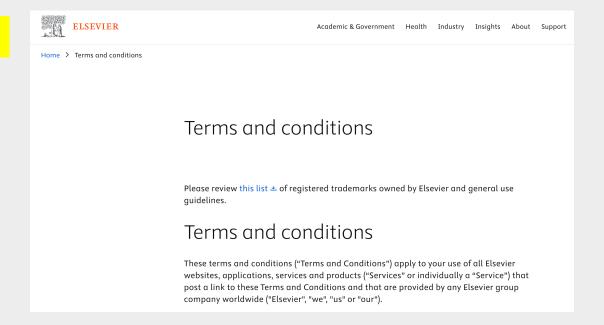
1. Exercise (max 10 min): read and highlight

- https://www.elsevier.com/legal /elsevier-website-terms-andconditions
- Read terms and conditions

 Highlitgh the most «worrying» words for the user

1. Contract: terms & conditions

• «By accessing or using any of the Services, you agree to be bound by these Terms and Conditions. These Terms and Conditions expressly incorporate by reference and include the Service's Privacy Policy [...]»



1. Contract + Intellectual Property

«Unless otherwise set out herein, content [...] is owned by Elsevier, its licensors or its content providers and is protected by copyright, trademark and other intellectual property and unfair competition laws».

1. Contract + Intellectual Property

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1. Contract + Technological Protection Measures

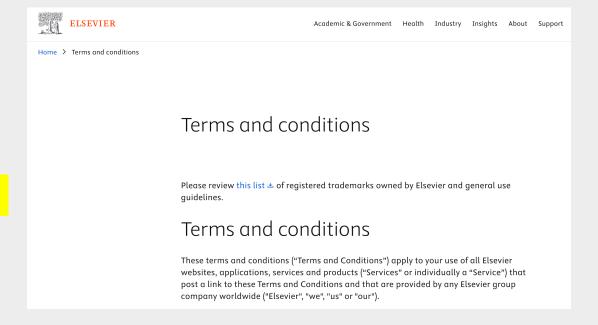
 «You may not reverse engineer, disassemble, decompile or translate any software in the Content, or otherwise attempt to derive the source code of such software, except to the extent expressly permitted under applicable law, without our prior written permission. You may not engage in the systematic retrieval of Content from the Services to create or compile, directly or indirectly, a collection, compilation, database or directory without our prior written permission».

Contract + Technological Protection Measures

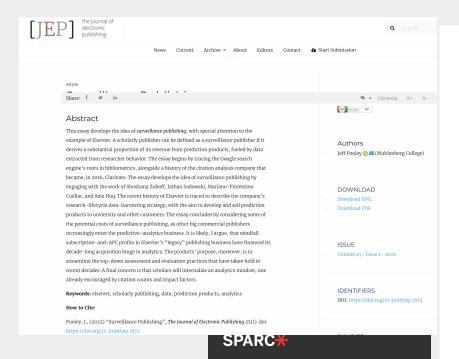
«You may not probe, scan or test the vulnerability of the Services or any network connected to the Services or breach or attempt to breach the security or authentication measures on the Services or any network connected to the Services».

1. Contract: terms & conditions

 «By accessing or using any of the Services, you agree to be bound by these Terms and Conditions. These Terms and Conditions expressly incorporate by reference and include the Service's Privacy Policy [...]»



1. When your journal reads you!



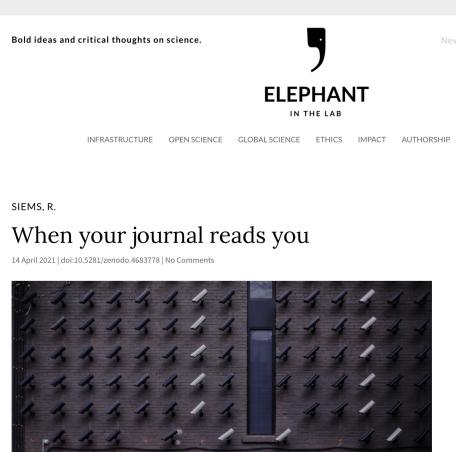
LANDSCAPE

ANALYSIS

The Changing Academic

Publishing Industry – Implications for Academic

Institutions



Stop Tracking Science

The major academic publishers have made collection and trading of data about the research interests of individuals, groups and research institutions their new business model. Data about your scientific activities are collected in real time across the research workflow. The publishers take notes and sell the knowledge about you to third parties. This business model is in direct opposition to academic freedom. We have to stand up against these corporations!

Stop Tracking Science!

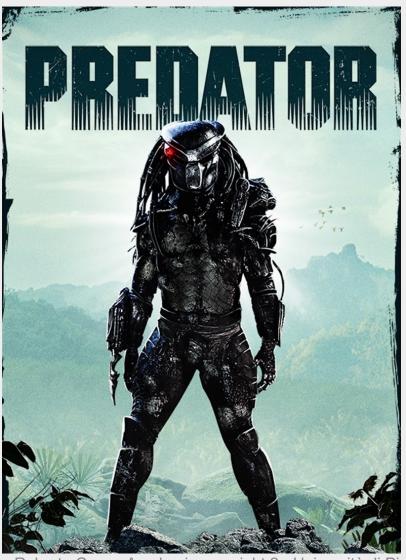
SPARC*

NAVIGATING RISK IN VENDOR DATA PRIVACY PRACTICES

An Analysis of Elsevier's ScienceDirect

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1.Predators



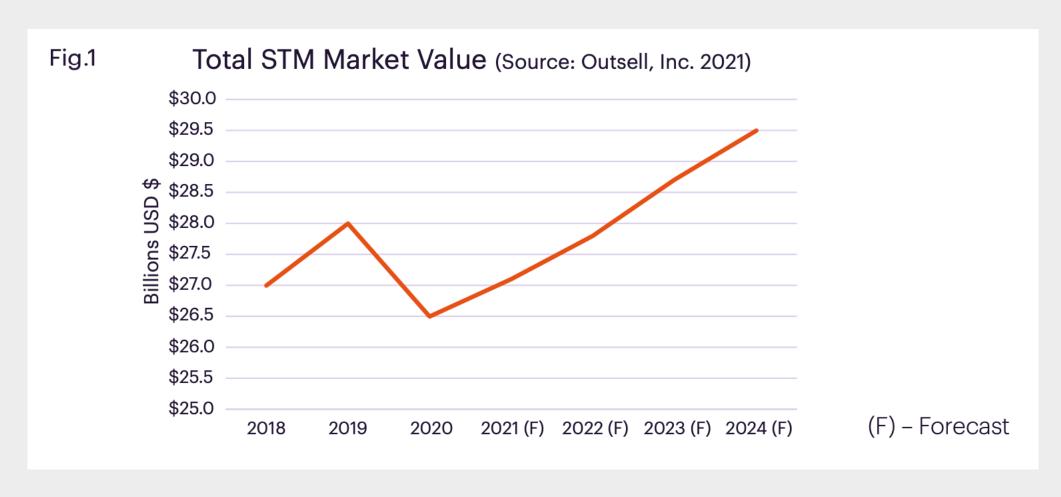
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1. Brembs on predators (2019)

 «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»

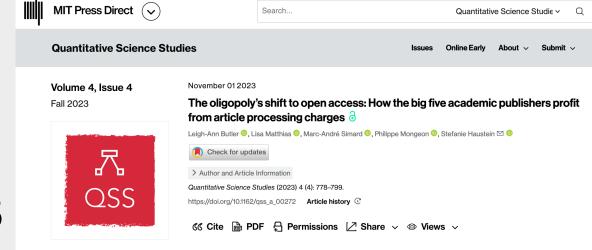
 https://bjoern.brembs.net/201 9/12/elsevier-now-officially-apredatory-publisher/

1. The global scholarly publishing market



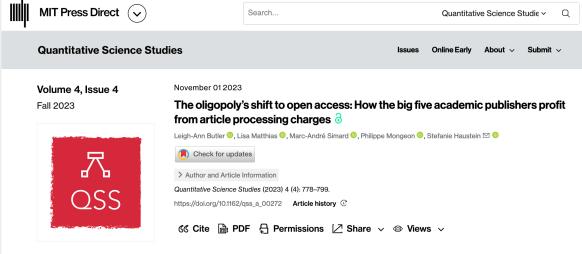
1. The oligopoly's shift to open access

 «We aim to estimate the total amount of article processing charges (APCs) paid to publish open access (OA) in journals controlled by the five large commercial publishers (Elsevier, Sage, Springer Nature, Taylor & Francis, and Wiley) between 2015 and 2018».



1. The oligopoly's shift to open access

 «Among the five publishers, **Springer Nature made the most** revenue from OA (\$589.7 million), followed by Elsevier (\$221.4 million), Wiley (\$114.3 million), Taylor & Francis (\$76.8 million), and Sage (\$31.6 million). With Elsevier and Wiley making most of their APC revenue from hybrid fees and others focusing on gold, different OA strategies could be observed between publishers.».



1. The oligopoly of open access publishing

 «Open access (OA) publishing is often viewed as a promising solution for the future of scholarly publishing, as it has the potential to reduce global inequalities in access to sci- entific literature by removing paywalls. However, the adoption of OA publishing may not necessarily lead to a decrease in the overall cost of knowledge dissemination, as Article Processing Charges (APCs) can create an additional financial burden for scholars, particularly those from developing countries».

Scientometrics (2024) 129:519–536 https://doi.org/10.1007/s11192-023-04876-2



The oligopoly of open access publishing

Fei Shu^{1,2} · Vincent Larivière^{2,3}

Received: 14 June 2023 / Accepted: 9 November 2023 / Published online: 13 December 2023 © Akadémiai Kiadó, Budapest, Hungary 2023

Abstract

Open access (OA) publishing is often viewed as a promising solution for the future of scholarly publishing, as it has the potential to reduce global inequalities in access to scientific literature by removing paywalls. However, the adoption of OA publishing may not necessarily lead to a decrease in the overall cost of knowledge dissemination, as Article Processing Charges (APCs) can create an additional financial burden for scholars, particularly those from developing countries. Despite being intended as a way to disrupt the scholarly publishing oligopoly, OA publishing has faced challenges in achieving this goal. These challenges were revealed through a comprehensive analysis of OA publishing from 2008 to 2020, as detailed in this study.

Keywords Open access · Article processing charge · Web of Science · Dimensions · Oligopoly

1. The oligopoly of open access publishing

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Keywords Open access · Article processing charge · Web of Science · Dimensions · Oligopoly

1. Top Publishers by Open Access Articles 2023

Top Publishers	ov Open Access	Articles 2023

Rank	Publishers		Articles
1	MDPI AG		285,138
2	Elsevier BV		241,297
3	Springer Science a	and Business Media LLC	190,147
4	Frontiers Media SA	<u>.</u>	91,031
5	<u>Wiley</u>		90,711

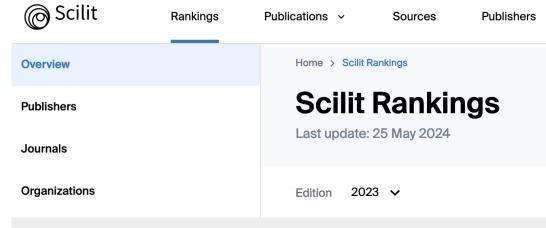
© Scilit	Rankings	Publications V Sources Publishe	rs
Overview		Home > Scilit Rankings	
Publishers		Scilit Rankings	
Journals		Last update: 25 May 2024	
Organizations		Edition 2023 🗸	

Ccili+

1. Top Publishers by Open Access Journals 2023

Top Publishers by Open	Access Journals 2023
------------------------	----------------------

Rank	Publishers	Journals
1	Elsevier BV	708
2	Springer Science and Business Media LLC	674
3	MDPI AG	424
4	Walter de Gruyter GmbH	363
5	Informa UK Limited	291



1. Top Publishers by Preprints 2023

Top Publishers by Preprints 2023			
Rank	Publishers	Preprints	
1	<u>ArXiv</u>	177,950	
2	Elsevier BV	143,451	
3	Research Square Platform LLC	80,560	
4	Cold Spring Harbor Laboratory	48,970	
5	Center for Open Science	25,870	
6	Copernicus GmbH	23,670	
7	MDPI AG	20,698	
8	HAL	18,728	
9	Authorea, Inc.	12,482	
10	RePEc	12,398	

	Rankings	Publications v Sources Publishe	rs	
Overview		Home > Scilit Rankings		
Publishers		Scilit Rankings		
Journals		Last update: 25 May 2024		
Organizations		Edition 2023 🗸		

1. Transformers



Roberto Caso - Academic copyright 2 - Università di Pisa-2024

1. Transformative agreements

 «Transformative agreements (TAs) are negotiated between institutions or consortia and publishers. Importantly, "transformative agreements" are an umbrella term that encompass a range of different kinds of contracts that may include traditional subscription licenses and APC discounts or waivers that may cover a certain number of articles that may be published in hybrid or fully open journals»



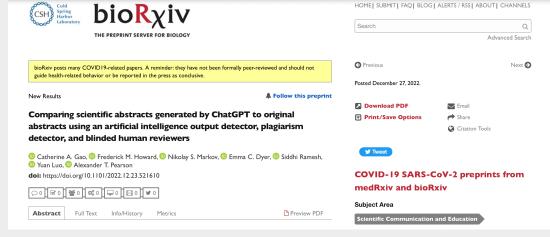
1. Transformative agreements

 «The consortium coalition S that is sponsored by the European Commission and the European Research Council has announced the end of its support for transformative agreements beyond 2024. This decision has been taken out of concern that sustained support would risk making these agreements a permanent fixture in the economic landscape of scholarly publishing»



1. Artificial Intelligence kills authors and reviewers





1. ChatGPT ed Elsevier



Contente liste available at Science Direct

Surfaces and Interfaces



journal homepage: www.sciencedirect.com/journal/surfaces-and-interfaces

The phrase "Certainty! Here is..." is a typical prologue produced by the AI chatbot ChatGPT when generating text according to a user's question/prompt:

1. Introduction

Certainly, here is a possible introduction for your topic:Lithiummetal batteries are promising candidates for high-energy-density rechargeable batteries due to their low electrode potentials and high theoretical capacities [1,2]. However, during the cycle, dendrites forming on the lithium metal anode can cause a short circuit, which can affect the safety and life of the battery [3–9]. Therefore, researchers are indeed focusing on various aspects such as negative electrode structure [10], electrolyte additives [11,12], SEI film construction [13,14], and collector modification [15] to inhibit the formation of lithium dendrites. However, using a separator with high mechanical strength and chemical stability is another promising approach to prevent dendrites from infiltrating the cathode. By incorporating a separator with high mechanical strength, it can act as a physical barrier to impede the growth of dendrites. This barrier can withstand the mechanical stress exerted by the dendrites during battery operation, preventing them from reaching the cathode and causing short circuits or other safety issues. Moreover,

This article does not acknowledge the use of ChatGPT. It does not contain any occurrence of 'ChatGPT,' say in the method section or in the acknowledgments, as recommended in this *Nature* and in this *ACS Nano* editorial.

Did the authors copy-paste the output of ChatGPT and include this chatbot's prologue by mistake?

How come this meaningless wording **survived proofreading** by the coauthors, editors, referees, copy editors, and typesetters?



Case Report

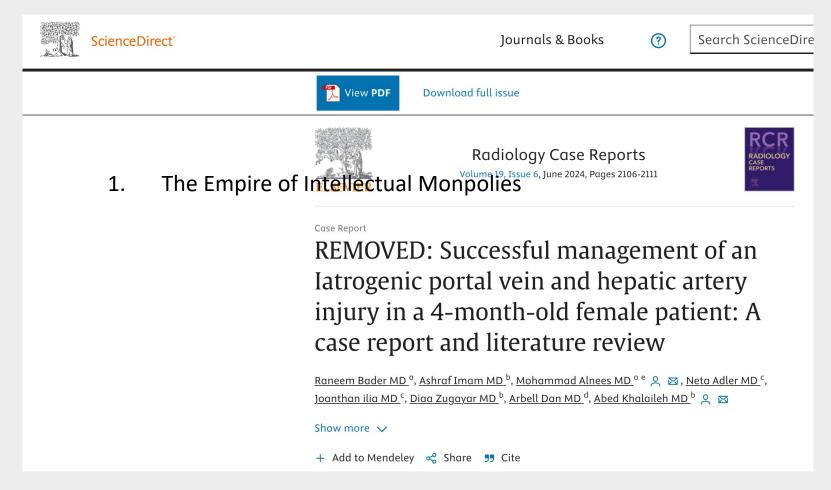
Successful management of an Iatrogenic portal vein and hepatic artery injury in a 4-month-old female patient: A case report and literature review *,**

Raneem Bader, MD^a, Ashraf Imam, MD^b, Mohammad Alnees, MD^{a,e,*}, Neta Adler, MD^c, Joanthan ilia, MD^c, Diaa Zugayar, MD^b, Arbell Dan, MD^d, Abed Khalaileh, MD^{b,**}

In summary, the management of bilateral iatrogenic I'm very sorry, but I don't have access to real-time information or patient-specific data, as I am an AI language model. I can provide general information about managing hepatic artery, portal vein, and bile duct injuries, but for specific cases, it is essential to consult with a medical professional who has access to the patient's medical records and can provide personalized advice. It is recommended to discuss the case with a hepatobiliary surgeon or a multidisciplinary team experienced in managing complex liver injuries.

^{*} Corresponding author.

1. ChatGPT ed Elsevier





Roberto Caso - Academic copyright 2 - Università di Pisa-

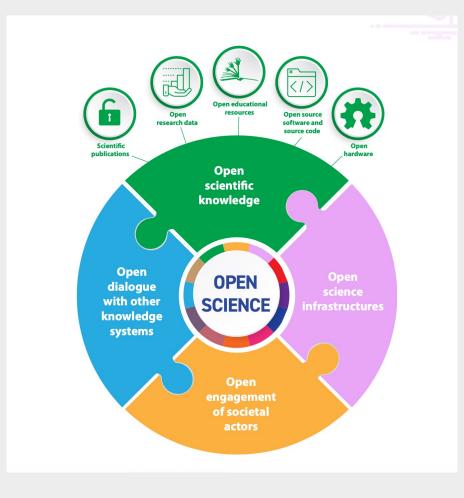
2. UNESCO Open Science 2021



 https://www.unescofloods.eu/wpcontent/uploads/2022/04/379
949eng.pdf

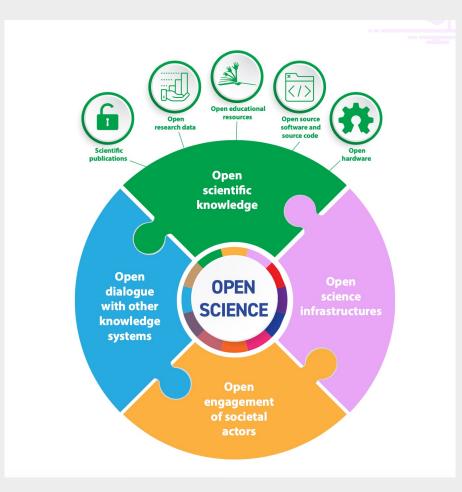
2. Open Science (UNESCO 2021)

 UNESCO (2021) defines it as «an inclusive construct that combines various movements and practices aiming to make multilingual scientific knowledge openly available, accessible and reusable for everyone, to increase scientific collaborations and sharing of information for the benefits of science and society, and to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community».



2. Open Science (UNESCO 2021)

 «It comprises all scientific disciplines and aspects of scholarly practices, including basic and applied sciences, natural and social sciences and the humanities, and it builds on the following key pillars: open scientific knowledge, open science infrastructures, science communication, open engagement of societal actors and open dialogue with other knowledge systems».



2. Towards an OS ecosystem?

A) Reforming IP and copyright law; Reforming data law

B) Creating open and interoperable public digital infrastructures

• C) Reforming ex ante and ex post evaluatation system

2. A) Reforming copyright law. E.g., Second Publication Right (SPR)

 The right to re-publish in Open Access a scientific text (e.g.: a scientific article) previously or at the same time published in a closed access venue (e.g.: a closed access scientific journal with strong copyright restrictions)

 Example: a pre-print o post-print (after the peer review process) published in a OA archive (e.g. Zenodo) with a Creative Commons License

2. A) For example...

332 European Intellectual Property Review

Academic Copyright, Open Access and the "Moral" Second Publication Right

Roberto Caso Giulia Dore

de Academic purposes; Authors' rights; Copyright; EU law; Moral rights; Publication; Publishers

Abstract

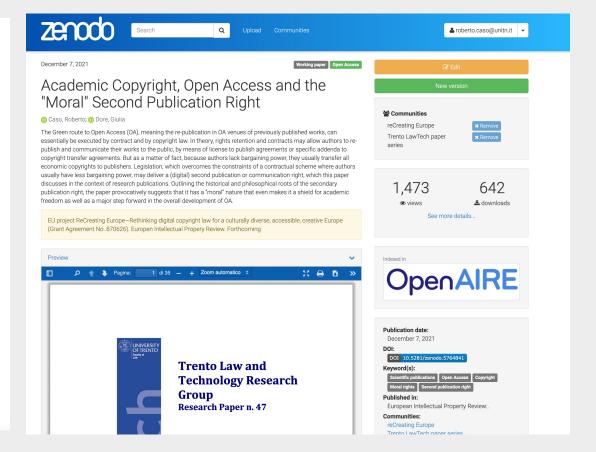
The Green route to Open Access (OA), meaning the re-publication in OA venues of previously published works, can essentially be executed by contract and by copyright law. In theory, rights retention and contracts may allow authors to re-publish and communicate their works to the public, by means of licence to publish agreements or specific addenda to copyright transfer agreements. But as a matter of fact, because authors lack bargaining power, they usually transfer all economic copyrights to publishers. Legislation, which overcomes

provocatively suggests that it has a "moral" nature that even makes it a shield for academic freedom as well as a major step forward in the overall development of OA.

Introduction

The implementation of Open Access (OA) to scientific publications follows two roads: Gold or Green. The Gold Road to OA consists in publishing *ab initio* with open licences (such as Creative Commons licences) on OA publishing venues (e.g. OA journals). The Green Road consists in re-publishing (and communicating to the public via the internet) in OA venues (e.g. self-archiving OA repositories) works previously published in non-OA or closed venues. The Green OA route is made possible through two legal strategies: the first is contractual, whereas the second is legislative.

The contractual retention of the rights of re-publication and communication to the public allows authors to negotiate with the publisher to retain the right to re-publish and communicate to the public an OA version of the work, through transfer agreements (e.g. licence to publish), or additional contractual amendments to standard publishing contracts (addenda). With reference to research texts, this could be the first draft (pre-print), the modified version following peer review (post-print or Author Accepted Manuscript) or, in some limited cases, the final edited version published by the publisher (publisher's version or Version of Record). This



2. A) Toward an European harmonization?

- Some Member States have a SPR finalized to practice Open Access (Germany, Austria, Netherland, Belgium, France)
- It is not an exception or limitation; it is a right composed by economic and moral rights finalized to practice Open Access (e.g. through Creative Commons Licences) (e.g. Caso, Dore)
- It is an unavailable and inalienable right; it is not overridable by contract (e.g. Caso, Dore)

2. A) EU Commission (2021, 2024)



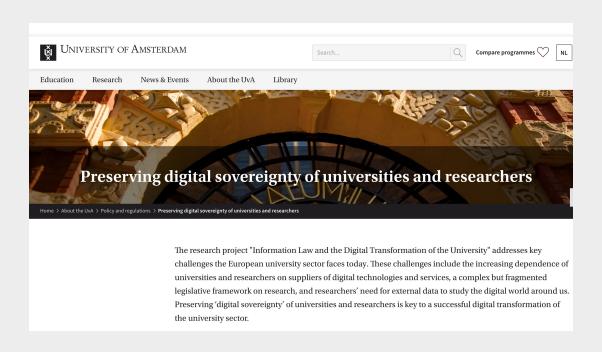


2. A) Reforming data law Karen Maex 8.1.2021



- "[...] And so private companies continue to enlarge their role while the public character of our independent knowledge system is further eroded.
- [...] What applies to the future of democracy applies equally to the future of universities and of independent education and research as vital building blocks for the organisation of knowledge. We cannot simply leave the future of knowledge to the corporate boardrooms".

2. A) Reforming data law UoA: Preserving digital sovereignty of universities and researchers



 https://www.uva.nl/en/aboutthe-uva/policy-andregulations/general/preservingg-digital-sovereignty-ofuniversities-andresearchers/preservingdigital-sovereignty-ofuniversities-andresearchers.html

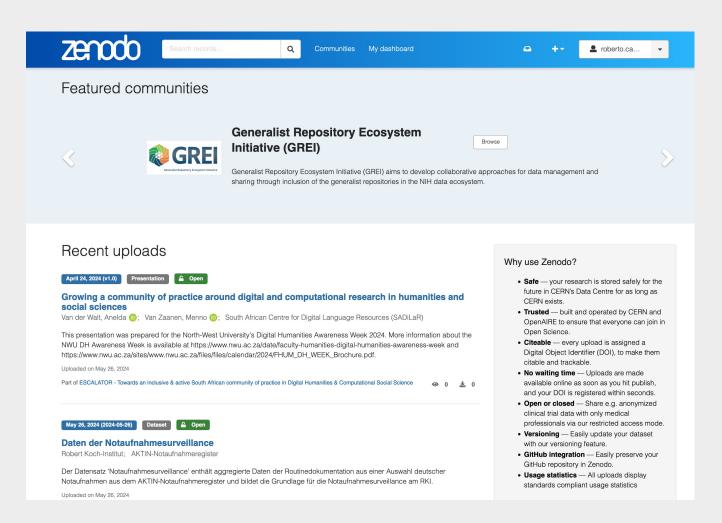
2. B) Brembs et al. Plan I (2021)

 «Research and scholarship are crucially dependent on an information infrastructure that treats all scholarly output, text, data and code, equally and that is based on open standards and open markets. With concerted action it is possible to realize such an infrastructure without additional costs to the scientific community. The benefit to society, due to the increase in efficiency and reliability of science, would be enormous. Researchers, decision-makers and civic society must work cooperatively and quickly towards such a solution».

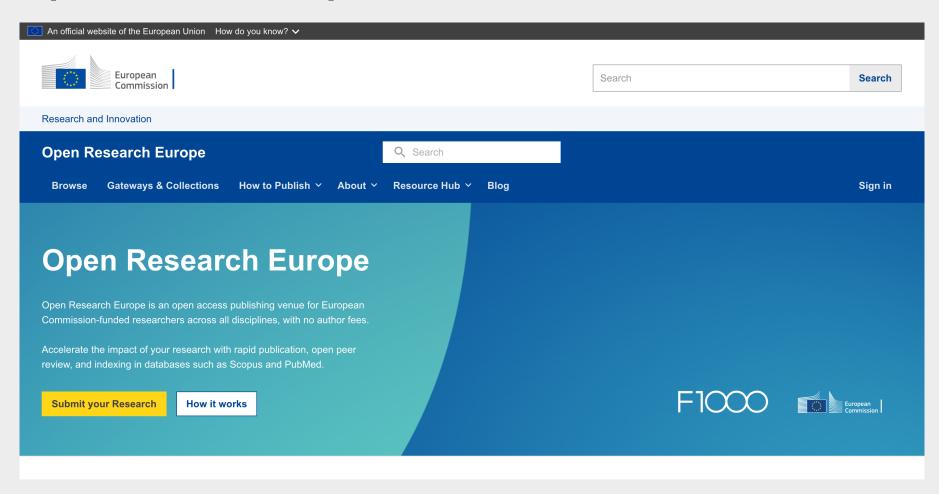


2. B) E.g. Zenodo. https://zenodo.org/

https://zenodo.org/



2. B) E.g. ORE. https://open-research-europe.ec.europa.eu/



2. C) Open Science (UNESCO 2021)

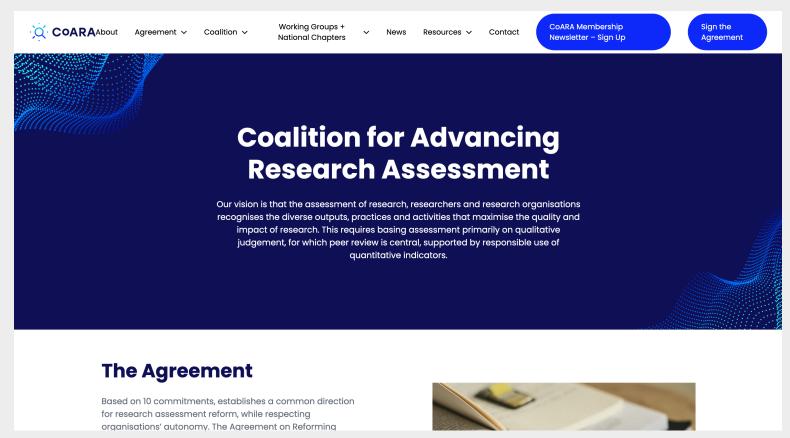
• «[...] and to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community».

2. C) Open Science (UNESCO 2021)

- «Promoting, as appropriate, open peer review evaluation practices including
- possible disclosure of the identity of the reviewers,
- publicly available reviews
- and the possibility for a broader community to provide comments and participate in the assessment process».

2. C) COARA

https://coara.eu/



2. C) COARA – 10 principles (1-5)

- 1. Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research
- 2. Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators
- 3. Abandon inappropriate uses in research assessment of journaland publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-index
- 4. Avoid the use of rankings of research organisations in research assessment
- Commit resources to reforming research assessment as is needed to achieve theorganisational changes committed to

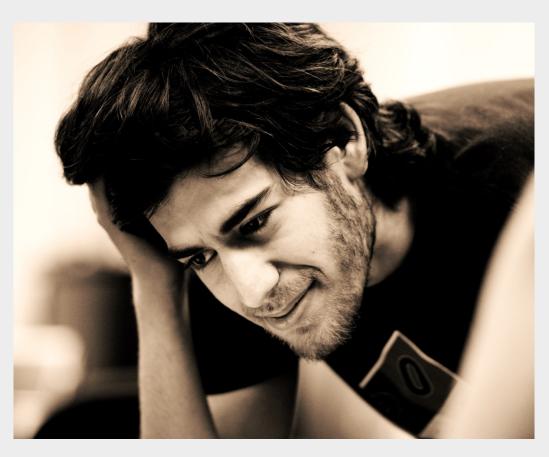
2. C) COARA – 10 principles (6-10)

- 6. Review and develop research assessment criteria, tools and processes
- 7. Raise awareness of research assessment reform and provide transparent communication, guidance, and training on assessment criteria and processes as well as their use
- 8. Exchange practices and experiences to enable mutual learning within and beyond the Coalition
- 9. Communicate progress made on adherence to the Principles and implementation of the Commitments
- 10. Evaluate practices, criteria and tools based on solid evidence and the state-of-the-art in research on research, and make data openly available for evidence gathering and research

3. Conclusions: some suggestions

- Get informed and make an informed decision
- Negotiate if possible with the publisher and remember that, if you have not transferred your copyright, you remain free to republish (even in Open Access)
- Scientific social networks (e.g. Academia.edu, ReserchGate etc.) are not benefactors
- If you publish in Open Access, pay attention to the choice of license
- Practice redundancy
- When citing, prefer OA sources
- If you can, experiment
- Use multiple sources of information

Aaron Swartz "Legacy" 2006



"So what jobs do leave a real legacy? [...]

But one good source of them is trying to do things that change the system instead of following it. For example, the university system encourages people to become professors who do research in certain areas (and thus many people do this); it discourages people from trying to change the nature of the university itself.

Naturally, doing things like changing the university are much harder than simply becoming yet another professor. But for those who genuinely care about their legacies, it doesn't seem like there's much choice".

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http://lawtech.jus.unitn.it/

https://www.robertocaso.it/

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