The Dark Sides of Modern Science: Publishing and Dissemination (Part II)

Taha Sochi (Contact: t.sochi@ucl.ac.uk)
London, United Kingdom

Abstract: This is the third article in our series "The Dark Sides of Modern Science" and is about publishing and dissemination of science (and knowledge in general). The remarks that we stated in the Introduction of the first article of this series (i.e. "Knowledge Production and Authoring") generally apply to this article and hence we do not need to repeat.

Keywords: Academic publishing, dissemination of knowledge, ethics of science, ethics of publishing, ethics of knowledge dissemination, morality in science, academic misconduct, corruption in science, corruption related to science.

Contents

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17. How do nonsense papers make their way into reputable journals?.
18. Fraudulent submissions to collections.
19. Beware: Predatory Guest Journal Editors!.
20. Not So Special.
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88. Don’t believe that hype: The health stories we can’t always trust.
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90. Why so many of the health articles you read are junk.
91. How News Outlets Amplify the Hype of Potentially Unhealthy Health Products.
92. Academic hype ‘distorting’ health news.
93. Where Does the News Hype Come From?.
94. Why hype in press releases is ineffective - and how to fix it?.
95. Beyond the Hype: The Inside Story of Science’s Biggest Media Controversies.
96. Crucial! New! Essential! - The rise of hype in research and impact assessment.
97. The Hype Problem.
98. Hope, hype and headlines - science and engineering in the news media (and what experts can do).
99. I got fooled by AI-for-science hype-here-s what it taught me.
100. Embrace the hype.
101. Hype in science: It’s not just the media’s fault.
102. Hype and overpromising in science and technology.
103. The age of the hype cycle: why science needs room to breathe.
104. Hype isn’t just annoying, it’s harmful to science and innovation.
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106. Spin of research results: What is this about?.
107. Spotting Spin: A Brief Guide to Honest Scientific Reporting.
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64. Are scientific articles always reliable?.
65. Reliability of neuroscience research questioned.
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68. Why being open about science can make people trust it less - and what to do about it.
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82. Understanding and Addressing Misinformation About Science.

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96. Worries mount about misinformation in science.
97. 'An Existential Crisis' for Science: What IPR scholars are doing to solve the replication crisis.
98. Why Science is Facing a Credibility Crisis.
99. What can be done to stop misinformation in and about science?.
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104. Corruption, Falsity, and Fraud: The Epistemological Crisis of Professional Academic Research.
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113. Trust in scientists is eroding and we need to get it back. Transparency is more important than ever.

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8 Quality and Value of Published Science

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35. Measures of success: what's the real value of published research?.
36. The world of Poor Things at MDPI journals.
37. Are there actually a lot of academic papers that don't really advance science, or is that a misconception?.
38. Why are many obviously pointless papers published, or worse studied?.
39. Why Academics Are Writing Junk That Nobody Reads.
40. Am I the only who notice a great decline in the quality of published articles nowadays?.
41. Pressure From the Top.
42. Why Garbage Science Gets Published.
43. Is There a Solution to Low Quality Research in Science?.
44. AI Tools May Be Weakening the Quality of Published Research.
45. Quality, trust & peer review: researchers' perspectives 10 years on .
46. We Must Stop the Avalanche of Low-Quality Research.
47. AI tools may be weakening the quality of published research, study warns.
48. Can We Trust Social Science Yet?.
49. Scientific publishing needs urgent reform to retain trust in research process.
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51. Can you give some examples of "scientific" papers that have been published in reputable journals, but which are considered to be of poor quality?.
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9 Artificial Intelligence

Also see "Role of Artificial Intelligence in Knowledge Production" section in the first paper of this series. We should also note that some of the items in this section may not belong to "Publishing and Dissemination" but they were included here for common benefit and desire to reduce the number of sections with similar contents and objectives (as well as because of their connection and relevance to "Publishing and Dissemination").

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71. What the history of copyright in academic publishing tells us about Open Research.
72. Guest Post - Academics and Copyright Ownership: Ignorant, Confused or Misled?.
73. Right to Research and Copyright Law: From Photocopying to Shadow Libraries.
74. Managing Intellectual Property in the Book Publishing Industry: A business-oriented information booklet.
75. Fair use of images in scholarly publishing.
76. Publishers settle copyright infringement lawsuit with ResearchGate.
77. The current system of scholarly publishing is the real infringement of academic freedom.
78. AI, Academia, and the Collapse of Intellectual Property: A Manifesto for Collective Innovation.
79. The issue of copyrights and intellectual property in academia.
80. The Changing World of Intellectual Property in Academic Settings.
81. Who Owns AI-Generated Content? Navigating Intellectual Property and Copyright Issues in Scholarly Publishing.
82. Indian court bans Sci-Hub, leaving some researchers worried.
83. Sci-Hub.
84. Elsevier vs. Alexandra.
85. Sci-Hub and Libgen Up against Academic Publishers: A Death Knell for Access to Research? - Part I.
86. Elsevier threatens others for linking to Sci-Hub but does so itself.
87. Delhi High Court orders blocking of Sci-Hub and Sci-Net in copyright infringement case.
88. Court tells internet companies block access to pirate research site Sci-Hub.
89. All you need to know about the lawsuit against Sci-Hub and LibGen.
90. War between Copyrights and Academic Research: The Sci-Hub and LibGen case.
91. Judgment Against Sci-Hub is a Win for Authors and Publishers.

92. Four Ways of Rationalizing Infringement: or, How to Defend a Pirate.
93. Delhi HC directs DoT and MeitY to block Sci-hub, Sci-net and affiliate websites in copyright infringement suit; Holds Founder guilty of contempt for violating 2020 undertaking.
94. Four large US publishers sue 'shadow library' for alleged copyright infringement.
95. Publishers Association statement on The Atlantic article on LibGen and Meta.
96. Richard Osman urges writers to 'have a good go' at Meta over breaches of copyright.
97. Textbook publishers sue 'shadow library' Library Genesis over pirated books.
98. Understanding LibGen: The Controversial Digital Library.
99. Has any researcher been sued for using Sci-Hub data in their research?.
100. Sci-Hub Case: The Court Should Protect Science From Greedy Academic Publishers.
101. Sci-Hub: Police warn students and universities against using 'the Pirate Bay of science'.
102. A librarian perspective on Sci-Hub: the true solution to the scholarly communication crisis is in the hands of the academic community, not librarians.
103. Access to Knowledge or Copyright Violation? The Global Science War Over Sci-Hub and LibGen.
104. The LibGen data set - what authors can do.
105. The scientists encouraging online piracy with a secret codeword.
106. Besides Sci-Hub, does anyone know where else I can get a pirated article?.
107. The Dark Side of Free Access: How Pirate Websites Threaten the Integrity of Academic Research.
108. Online Piracy and the Disruption of Scholarly Publishing.
109. Are Open Access Journals Immune from Piracy?.
110. Fast Company: "Study: Over 50% of Academics Admit to Pirating Research Papers".
111. Activists Mobilize to Fight Censorship and Save Open Science.
112. Strategies to Combat Academic Piracy in Research and Writing.
113. Academic publishing and piracy: where did it all go wrong?.
114. How Piracy Became a Cause Celebre in the World of Academics.
115. What If Academic and Scholarly Publishers Paid Research Authors?.
116. Paper Pirates: Does Sci-Hub Help or Hurt Research?.
117. From Book Piracy to Predatory Publishing.
118. Piracy: A threat to Academicians and Publishers.
119. Open access and piracy threaten science.
120. Sci-Hub: research piracy and the public good.
121. Academic Piracy: Revolution or Robbery?.

122. Over 90% of chemistry literature freely available at pirate site.
123. Question on Authors thoughts on pirating books. PLEASE dont share any sites where you can download them, it is against the subs policy.
124. How to Stop Book Piracy: A Complete Guide for Authors & Publishers.
125. 'We're told to be grateful we even have readers': pirated ebooks threaten the future of book series.
126. Authors call on Government to tackle online book piracy.
127. How pirate websites undermine research integrity.
128. Why book piracy is killing libraries, indie voices, diversity and small presses.
129. Authors and Book Piracy.
130. Resolved: book piracy badly hurts at least some authors.
131. BLOG: How Book Piracy Impacts Authors.
132. It is not ethical to pirate an author's work without their permission.
133. How Internet Pirates Affect Authors and the Publishing Industry.

13 Other Dark Sides

There are many other dark sides and aspects of modern science related to "Publishing and Dissemination". However, due to the limitations on the size of the current study we outline a sample of these sides and aspects with some examples and prompts that can help the interested readers and researchers to appreciate the significance of these categories and reach the relevant items (papers and online articles) in these categories (as well as encouraging researchers to investigate these aspects). More examples (related to these categories as well as other categories) may also be found in the upcoming Miscellaneous section (see § 14) as well as the previous and forthcoming publications in this series.[1]

13.1 Spamming in Academic Publishing

A sample of papers and online articles in this category are:

1. M. Kozak; O. Iefremova; J. Hartley. Spamming in scholarly publishing: A case study, 2015. DOI: 10.1002/asi.23521

[1] We should note that some of the following examples of "Other Dark Sides" (as presented in the following subsections) may also be examples (to some extent) for the upcoming "Virgin or Under-Researched Dark Sides" section (see § 15).

2. A.R. Memon. Predatory Journals Spamming for Publications: What Should Researchers Do?, 2018. DOI: 10.1007/s11948-017-9955-6
3. J. Soler; A. Cooper. Unexpected Emails to Submit Your Work: Spam or Legitimate Offers? The Implications for Novice English L2 Writers, 2019. DOI: 10.3390/publications7010007
4. J.A.T. da Silva; A. Al-Khatib; P. Tsigaris. Spam emails in academia: issues and costs, 2020. DOI: 10.1007/s11192-019-03315-5
5. J. Sureda-Negre; A. Calvo-Sastre; R. Comas-Forgas. Predatory journals and publishers: Characteristics and impact of academic spam to researchers in educational sciences, 2022. DOI: 10.1002/leap.1450
6. M. Dadkhah; A.M. Raja; A.R. Memon; et al. A Toolkit for Detecting Fallacious Calls for Papers from Potential Predatory Journals, 2023. DOI: 10.34172/apb.2023.068
7. J. Soler; Y. Wang. Predatory Publishers' Spam Emails as a Symptom of the Multiple Vulnerabilities in Academia, 2023. DOI: 10.4324/9781003170723-3

8. Science's spam epidemic.
9. Endless spam since I published a paper a few months ago.
10. Freeing yourself from unwanted journal and conference email solicitations.
11. Strange journal invitations popping up in my inbox every day.
12. Web Spamming by Academic Publishers.
13. Replying to Academia SPAM.
14. Democratising publishing or dodgy spammers? What 'inclusive' publishers tell us about the state of academic book publishing.

A sample of prompts (for further research in this category) are:

- Spamming corresponding authors.
- Spamming in academic publishing.
- How to combat spam in scholarly publishing.
- How authors protect themselves from academic spam.
- Spamming from predatory publishers.
- Spamming from legitimate academic publishers.
- Spamming from respected academics and researchers.
- Scholarly spamming as a form of misconduct.
- The cost of spamming in scholarly publishing.
- The bad impact of spamming in scholarly publishing.

- The pandemic of academic spam.

13.2 Selective- and Under-Reporting of Results

A sample of papers and online articles in this category are:

1. I. Chalmers. Underreporting research is scientific misconduct, 1990. PMID: 2304220
2. K. Lee; P. Bacchetti; I. Sim. Publication of Clinical Trials Supporting Successful New Drug Applications: A Literature Analysis, 2008. DOI: 10.1371/journal.pmed.0050191
3. I. Chalmers; K. Dickersin. Biased under-reporting of research reflects biased under-submission more than biased editorial rejection, 2013. DOI: 10.12688/f1000research.2-1.v1
4. M. Kicinski. How does under-reporting of negative and inconclusive results affect the false-positive rate in meta-analysis? A simulation study, 2014. DOI: 10.1136/bmjopen-2014-004831
5. W. Foster; S. Putos. Neglecting the null: the pitfalls of underreporting negative results in preclinical research, 2014. DOI: 10.18192/uojm.v4i1.1036
6. A. Franco; N. Malhotra; G. Simonovits. Underreporting in Psychology Experiments: Evidence From a Study Registry, 2015. DOI: 10.1177/1948550615598377
7. K. Neves; O.B. Amaral. Science Forum: Addressing selective reporting of experiments through predefined exclusion criteria, 2020. DOI: 10.7554/eLife.56626

8. Non-reporting of negative findings.
9. Illuminating 'the ugly side of science': fresh incentives for reporting negative results.
10. Why Are Negative Results Still Six Feet Under?.
11. Dickersin K, Chalmers I (2010). Recognising, investigating and dealing with incomplete and biased reporting of clinical research: from Francis Bacon to the World Health Organisation.
12. Selective Outcome Reporting as a Source of Bias in Reviews of Comparative Effectiveness.
13. Introduction to research integrity and selective reporting bias.

A sample of prompts (for further research in this category) are:

- Selective/under-reporting of results in scientific research.
- Non-reporting of negative results in academia and research.
- Selective/under-reporting and publication bias.

- Criticism of selective/under-reporting in research and publication.
- Extent/prevalence of selective/under-reporting in scholarly publication.
- Impact of non-reporting of negative results in scientific research.
- The bad consequences of selective/under-reporting results in scientific research.

13.3 PhD and Publishing

A sample of papers and online articles in this category are:

1. N. Yeung. Forcing PhD students to publish is bad for science, 2019. DOI: 10.1038/s41562-019-0685-4
2. S. Moradi. Publication should not be a prerequisite to obtaining a PhD, 2019. DOI: 10.1038/s41562-019-0690-7
3. Editorial. Look beyond publications in assessment of PhDs, 2019. DOI: 10.1038/s41562-019-0763-7
4. A.F. Shamsi; U.V. Osam. Challenges and Support in Article Publication: Perspectives of Non-Native English Speaking Doctoral Students in a "Publish or No Degree" Context, 2022. DOI: 10.1177/21582440221095021
5. H. Horta; H. Li. Nothing but publishing: the overriding goal of PhD students in mainland China, Hong Kong, and Macau, 2022. DOI: 10.1080/03075079.2022.2131764
6. W. Quan; F. Shu; M. Yang; V. Lariviere. Publish and flourish: investigating publication requirements for PhD students in China, 2023. DOI: 10.1007/s11192-023-04854-8
7. M. Khodakarami; F. MohammadRezaei; A. Sarlak; M. Garg; Z. Rezaee. Free-riding in academic co-authorship: The marginalization of research students, 2025. DOI: 10.1016/j.respol.2024.105165

8. When publishing becomes the sole focus of PhD programmes academia suffers.
9. Is it fair/push/force/ask PhD candidates to publish articles before viva?.
10. Focus on PhD quality, not publications: We need to encourage scholars to become inquisitive explorers, papers will naturally follow.
11. Study: PhD Researchers Forced to Grant 'Guest Authorships'.
12. The Goal of a PhD Program is Not to Write and Publish Research Papers.
13. Dizzying publication rates by PhD students?.
14. the PhD and publication/by publication - a very peculiar practice? part one.
15. Publication requirements for graduation are a terrible idea.
16. I've left my PhD behind, but I'm being put under pressure to publish.

17. Supervisor publishes PhD students work.

A sample of prompts (for further research in this category) are:

- Forcing PhD students to publish.
- Forcing research students to publish.
- Publishing papers as requirement for completing/obtaining PhD.
- Pressure on PhD students to publish.
- Exploitation of PhD students by their supervisors/faculties/seniors in authorship.
- Exploitation of PhD students by their supervisors/faculties/seniors in publishing.
- Negative impact of forced PhD publishing on students.
- Negative impact of forced PhD publishing on quality of academic publications.
- Forced PhD publishing as a cause of misconduct.
- Forced PhD publishing encourages predatory and questionable publishing practices.

13.4 Oligopoly of Academic Publishers

A sample of papers and online articles in this category are:

1. V. Lariviere; S. Haustein; P. Mongeon. The Oligopoly of Academic Publishers in the Digital Era, 2015. DOI: 10.1371/journal.pone.0127502
2. C. Petrini; E. Alleva. On the oligopoly of academic publishers, 2015. DOI: 10.4415/ANN_15_04_01
3. P. Mann. Scholarship in a Globalized World: The Publishing Ecosystem and Alternatives to the Oligopoly, 2022. DOI: 10.46692/9781529216677.014
4. L.-A. Butler; L. Matthias; M.-A. Simard; et al. The oligopoly's shift to open access: How the big five academic publishers profit from article processing charges, 2023. DOI: 10.1162/qss_a_00272
5. F. Shu; V. Lariviere. The oligopoly of open access publishing, 2024. DOI: 10.1007/s11192-023-04876-2
6. J. Pooley. Large Language Publishing: The Scholarly Publishing Oligopoly's Bet on AI, 2024. DOI: 10.18357/kula.291
7. S. van Bellen; J.P. Alperin; V. Lariviere. Scholarly publishing's hidden diversity: How exclusive databases sustain the oligopoly of academic publishers, 2025. DOI: 10.1371/journal.pone.0327015

8. Challenging the Academic Publisher Oligopoly: Technological and political changes may liberate scientific research.
9. Inequities of Article Processing Charges: How the Oligopoly of Academic Publishers Profits from Open Access.
10. More than half of research published by top five publishers.
11. Your Unfriendly Neighborhood Oligopoly: On the Exploitive Nature of Modern Scientific Publishing.
12. How the academic publishing oligopoly skews debates on the cost of publishing.
13. "Big Five".
14. These Five Companies Control More Than Half of Academic Publishing.
15. Ending profiteering from publicly-funded research: Tackling the academic publishing oligopoly.

A sample of prompts (for further research in this category) are:

- Oligopoly of academic publishers.
- Dominance of few giant academic publishers.

13.5 Setting Publication Quotas/Targets

A sample of online articles in this category are:

1. R. Aulakh. Mandatory publication in India: setting quotas for research output could encourage scientific fraud, 2016. DOI: 10.1136/bmj.i5002
2. N. Yeung. Forcing PhD students to publish is bad for science, 2019. DOI: 10.1038/s41562-019-0685-4
3. J.S. Taylor. To combat poor quality research, eliminate publication requirements, 2024. DOI: 10.17179/excli2024-7428
4. D. Johann; J. Neufeld; K. Thomas; et al. The impact of researchers' perceived pressure on their publication strategies, 2024. DOI: 10.1093/reseval/rvae011
5. T.T. Le; T.T. Pham. Balancing the scale: examining the impact of publication quotas on academic well-being in Vietnamese higher education, 2025. DOI: 10.1080/07294360.2025.2486188
6. Against Publication: The Case for Academics to Write Less.
7. Setting targets in academia can be detrimental.
8. The Cost of Publication Pressure: Examining the Impact on Research Quality in Pak-

istan.

9. Is it dangerous to set quotas for research output?.
10. Does the pressure to publish a certain number of research papers per year affect the quality of the research being done?.
11. What Is the 'Publish or Perish' Culture in Academia?.
12. The F-word, or how to fight fires in the research literature.

A sample of prompts (for further research in this category) are:

- Criticism to setting publication quotas/targets for researchers and academics.
- Setting publication quotas/targets damages the quality of academia and research.
- Setting publication quotas/targets encourages academic misconduct.
- Negative impact of setting publication quotas/targets.
- Danger of setting quotas/targets for research publishing.
- Danger of setting quotas/targets for academic publication.
- Extent/prevalence of setting publication quotas/targets in academia and research.

13.6 Fake Acceptance Letters

A sample of online articles in this category are:

1. Fraudulent submissions and acceptances.
2. Fake Acceptance Letters and emails.
3. Paper Accepted...Unless the Letter Was Forged.
4. Elsevier: Identifying fake acceptance letters.
5. Fake Acceptance Letters - The Latest Scholarly Publishing Scam.
6. Warning: Fake Manuscript Acceptance Letters requesting payment in circulation.
7. How to avoid fake acceptance scams in publishing.

Also see:

D. Stockemer; T. Reidy. Academic misconduct, fake authorship letters, cyber fraud: Evidence from the International Political Science Review, 2023. DOI: 10.1002/leap.1587

A sample of prompts (for further research in this category) are:

- Fake acceptance letters in academic publishing.
- Fraudulent acceptance letters in scholarly publishing.

13.7 Self-Publishing

We should note first that self-publishing has good and bad sides and hence it is not entirely "dark side". In fact, I include self-publishing here mainly because it reflects the unhealthy situation of modern science and its dark sides noting that self-publishing can partly be regarded as a protest movement against the bad situation of modern science (and its "publishing and dissemination" aspects in particular).

A sample of online articles in this category are:

1. Scholarly publishing is broken: Is it time to consider guerrilla self-publishing?.
2. Do you self-publish your academic paper?.
3. We need to say yes to academic self-publishing but senior academics must lead the way.
4. The Opportunities and Pitfalls of Academic Self-Publishing: Reflections Ten Years After my Kickstarter.
5. Academic self-publishing: a not-so-distant-future.
6. Self-publish and be Damned: A call for Radical Publishing Alternatives.
7. The Academic's Guide to Self-Publishing.
8. Peer review and academic credibility - barriers to self-publishing.
9. The Advantages and Disadvantages of Self-Publishing.
10. How I Do It: Successful Indie Authors Share Their Secrets. This week: Orna Ross.
11. The Rise of Indie Authors: Pioneering a New Era in Literature.
12. How Indie Authors Are Redefining Publishing and Building Sustainable Self-Publishing Businesses.
13. Scams in Self Publishing, What You Need to Know | Self-Publishing News (Feb. 26, 2024).
14. All You Need to Know About Scams as a Self-Publisher.

Also see:

1. S. Carolan; C. Evain. Self-Publishing: Opportunities and Threats in a New Age of Mass Culture, 2013. DOI: 10.1007/s12109-013-9326-3
2. M. Hviid; S. Izquierdo-Sanchez; S. Jacques. From Publishers to Self-Publishing: Disruptive Effects in the Book Industry, 2019. DOI: 10.1080/13571516.2019.1611198

A sample of prompts (for further research in this category) are:

- Self-publishing revolution against exploitation by academic publishers.
- Self-publishing as new model for academic publishing.
- Self-publishing to avoid exploitation by academic publishers.

- Self-publishing reflects the bad situation of peer-reviewing.
- Self-publishing reflects lack of confidence in academic publishers and peer-review process.
- Advantages and disadvantages of self-publishing.
- Pros and cons of self-publishing in academia and research.
- Indie authors motives.
- Indie authors movement.
- Self-publishing as protest against bad situation of scholarly publishing.
- Self-publishing as protest against exploitation in publishing.
- Potential pollution of science by self-publishing.
- Preprinting and self-publishing.
- Print-on-demand and self-publishing.
- Scams of/in self-publishing.

14 Miscellaneous

1. M.C. LaFollette. *Stealing Into Print: Fraud, Plagiarism, and Misconduct in Scientific Publishing*. 1996. ISBN: 9780520205130
2. V. Patel; A. Sumathipala. International representation in psychiatric literature: survey of six leading journals, 2001. DOI: 10.1192/bjp.178.5.406
3. G. Brumfiel. Money-spinning journal ruse foiled, 2002. DOI: 10.1038/416668b
4. M. Callaham; R.L. Wears; E. Weber. Journal Prestige, Publication Bias, and Other Characteristics Associated With Citation of Published Studies in Peer-Reviewed Journals, 2002. DOI: 10.1001/jama.287.21.2847
5. P.A. Lawrence. The politics of publication, 2003. DOI: 10.1038/422259a
6. J. Brookfield. The system rewards a dishonest approach, 2003. DOI: 10.1038/423480a
7. D. Colquhoun. Challenging the tyranny of impact factors, 2003. DOI: 10.1038/423479a
8. J. Giles. Scientists behaving badly, 2004. DOI: 10.1038/news040301-9
9. B.C. Martinson; M.S. Anderson; R. de Vries. Scientists behaving badly, 2005. DOI: 10.1038/435737a
10. J. Giles. Journals lack explicit policies for separating eds from ads, 2005. DOI: 10.1038/434549a
11. S. Goodman; S. Greenland. Why Most Published Research Findings Are False: Problems in the Analysis, 2007. DOI: 10.1371/journal.pmed.0040168
12. N.S. Young; J.P.A. Ioannidis; O. Al-Ubaydli. Why Current Publication Practices May

Distort Science, 2008. DOI: 10.1371/journal.pmed.0050201
13. J.A. Evans. Electronic Publication and the Narrowing of Science and Scholarship, 2008. DOI: 10.1126/science.1150473
14. S.N. Young. Bias in the research literature and conflict of interest: an issue for publishers, editors, reviewers and authors, and it is not just about the money, 2009. PMID: 19949717
15. K. Sanderson. Two new journals copy the old, 2010. DOI: 10.1038/463148a
16. D. Fanelli. Do Pressures to Publish Increase Scientists' Bias? An Empirical Support from US States Data, 2010. DOI: 10.1371/journal.pone.0010271
17. J. Matias-Guiu; R. Garcia-Ramos. Fraud and misconduct in scientific publications, 2010. DOI: 10.1016/S2173-5808(10)70001-8
18. E. Wager. Publication ethics: whose problem is it?, 2012. DOI: 10.1629/2048-7754.25.3.294
19. F. Radicchi. In science "there is no bad publicity": Papers criticized in comments have high scientific impact, 2012. DOI: 10.1038/srep00815
20. D. Butler. Investigating journals: The dark side of publishing, 2013. DOI: 10.1038/495433a
21. B. Forgues; S. Liarte. Academic Publishing: Past and Future, 2013. DOI: 10.3917/mana.165.0739
22. D. Fanelli; R. Costas; V. Larivière. Misconduct Policies, Academic Culture and Career Stage, Not Gender or Pressures to Publish, Affect Scientific Integrity, 2015. DOI: 10.1371/journal.pone.0127556
23. M. Dadkhah; T. Maliszewski; J.A.T. da Silva. Hijacked journals, hijacked web-sites, journal phishing, misleading metrics, and predatory publishing: actual and potential threats to academic integrity and publishing ethics, 2016. DOI: 10.1007/s12024-016-9785-x
24. K.L. Smith. Examining publishing practices: moving beyond the idea of predatory open access, 2017. DOI: 10.1629/uksg.388
25. S.P.J.M. Horbach; W. Halffman. The ghosts of HeLa: How cell line misidentification contaminates the scientific literature, 2017. DOI: 10.1371/journal.pone.0186281
26. M.A. Edwards; S. Roy. Academic Research in the 21st Century: Maintaining Scientific Integrity in a Climate of Perverse Incentives and Hypercompetition, 2017. DOI: 10.1089/ees.2016.0223
27. V. Nair. Changing paradigm in the scientific publication process: Are we encouraging Science or Pseudoscience? Urgent need for introspection and self regulation, 2017. DOI:

10.1016/j.mjafi.2017.03.009
28. A. Saltelli; S. Funtowicz. What is science's crisis really about?, 2017. DOI: 10.1016/j.futures.2017.05.010
29. H. Baric; K. Bazdaric; A. Glasnovic; S. Gajovic. Why scholarly publishing might be a bubble, 2017. DOI: 10.3325/cmj.2017.58.1
30. V. Wiwanitkit. Misconduct in Research and Publication, 2017. DOI: 10.18869/acadpub.ibj.21.5.284
31. J.A.T. da Silva. Fake peer reviews, fake identities, fake accounts, fake data: beware!, 2017. DOI: 10.21037/amj.2017.02.10
32. D. Moher; L. Shamseer; K.D. Cobey; et al. Stop this waste of people, animals and money, 2017. DOI: 10.1038/549023a
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34. D. Kumar V. Academic nepotism - all that glitters is not gold, 2018. PMID: 30349831
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36. J.P. Tennant; H. Crane; T. Crick; et al. Ten Hot Topics around Scholarly Publishing, 2019. DOI: 10.3390/publications7020034
37. Editorial. The future of scholarly publishing: Paywalls and profits or a new plan?, 2019. DOI: 10.1016/j.geoforum.2019.03.005
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43. E. Denisova-Schmidt (Editor). *Corruption in Higher Education: Global Challenges and Responses*. 2020. ISBN: 9789004433878
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Evidence from publication delays and rejection rates, 2020.
DOI: 10.1371/journal.pone.0236927

45. H. Else. Errors in genetic sequences mar hundreds of studies, 2021.
DOI: 10.1038/d41586-021-02136-y
46. R.M. Frederickson; R.W. Herzog. Keeping Them Honest: Fighting Fraud in Academic Publishing, 2021. DOI: 10.1016/j.ymthe.2021.02.011
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DOI: 10.1007/s12664-020-01129-5
48. D. Blum. Researchers behaving badly, 2021. DOI: 10.1126/science.abj1846
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DOI: 10.2147/vhrm.s12187343
53. J. Brainard. You've spotted a flaw in a top journal's paper. Good luck getting your critique published, 2022. DOI: 10.1126/science.ade7837
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222. N8 Research Partnership calls for urgent reform of scholarly publishing models.

15 Virgin or Under-Researched Dark Sides

We think the following dark (or potentially problematic) aspects of modern science related to "Publishing and Dissemination" are not properly and sufficiently investigated (noting that there may be some items related to these aspects in the "Miscellaneous" section and possibly other sections) and hence they require more attention:

1. Journal quotas. The following may be an example:
   B. Park; E. Sohn; S. Kim. Does the pressure to fill journal quotas bias evaluation?: Evidence from publication delays and rejection rates, 2020.
   DOI: 10.1371/journal.pone.0236927
2. Paper hijacking. The following may be an example:
   Paper hijacking: hijackers are attacking journals for hijacking unpublished papers.
3. The academic qualities and merits of academic publishers and editors.[2]
4. The undue influence and control of academic publishers on science.[3]
5. Burden of scholarly publishing on (public and non-public) resources.The following may

[2] We note in this regard that the bosses and editors of many academic publishers are not top scholars (and may not be scholars) and they are appointed based on questionable or ambiguous criteria).

[3] This should include things like the indirect influence of academic publishers (through their publishing policies and acceptance/rejection of publications) on things like academic and research funding, academic and research posts and tenure, awards, privileges and prestige, and so on. In fact, their more important influence is on deciding the legitimate/illegitimate science and mainstream/fringe science (noting that the academic qualities and merits of many academic publishers and editors are questionable or humble; moreover their decisions are highly influenced by non-scholarly factors such as commercial and public relation considerations as well as the influence on them by governments, industry, ... etc., which makes the environment of academic publishers and editors full of conflict of interest issues and concerns).

be an example:[4]

Public funds being swallowed up by scientific journals with dubious articles.

6. Exploitation of general assets and resources.[5]

We therefore call the researchers in these fields to do more investigations and publications about these aspects.[6]

[4] Some labels that may represent and depict this category are: "drainage of public funds by academic publishing", "waste of public funds by academic publishing", "waste of valuable academic resources on worthless publications", "burden of scholarly publishing on science resources", and so on.

[5] "Assets and resources" should include general assets and resources in the form of (public and non-public) media and books (as well as documents in general such as pdf files of valuable content, presentations, online articles, videos, etc.), open-access and paywall scholarly products, general and specialized data and information, and so on. The exploitation of these resources is exemplified by the exploitation by the artificial intelligence companies and related scholarly publishing industry (some of which have been highlighted in the current and previous articles of this series). In fact, there are many illegitimate and questionable uses of these assets and resources (noting as well that there are many loopholes in the legal framework that regulates or supposedly-regulates the use of these assets and resources).

[6] In fact, the above list is a sample noting that there are other aspects that require attention and investigation (especially with the recent developments in academic publishing related, for instance, to artificial intelligence).