

Plan S in Latin America: A precautionary note

Humberto Debat¹ & Dominique Babini²

¹Instituto Nacional de Tecnología Agropecuaria (IPAVE-CIAP-INTA), Argentina, ORCID id: 0000-0003-3056-3739, debat.humberto@inta.gob.ar

²Consejo Latinoamericano de Ciencias Sociales (CLACSO), Argentina. ORCID id: 0000-0002-5752-7060, dasbabini@gmail.com

Latin America has historically led a firm and rising Open Access movement and represents the worldwide region with larger adoption of Open Access practices. Argentina has recently expressed its commitment to join Plan S, an initiative from a European consortium of research funders oriented to mandate Open Access publishing of scientific outputs. Here we suggest that the potential adherence of Argentina or other Latin American nations to Plan S, even in its recently revised version, ignores the reality and tradition of Latin American Open Access publishing, and has still to demonstrate that it will encourage at a regional and global level the advancement of non-commercial Open Access initiatives.

Plan S is an initiative from a European consortium of research funders, with the intention of becoming international, oriented to mandate Open Access publishing of research outputs funded by public or private grants, starting from 2021. Launched in September 2018 and revised in May 2019, the plan supported by the so-called cOAlition S involves 10 principles directed to achieve scholarly publishing in “*Open Access Journals, Open Access Platforms, or made immediately available through Open Access Repositories without embargo*” [1]. cOAlition S, coordinated by Science Europe and comprising 16 national research funders, three charitable foundations and the European Research Council, has pledged to coordinately implement the 10 principles of Plan S in 2021. In addition, cOAlition S has received supporting statements from several funding agencies and academic organizations of other regions [2].

Plan S has received multiple and robust critiques to their implementation guidelines since its inception, from diverse members of the scholarly publishing ecosystem, ranging from researchers [3-4] (including an open letter of ca. 1,800 scientists around the globe [5]), scientific societies [6-7], the Society Publishers’ Coalition [8] non-for profit society publishers [9-10], Open Access and professional organization publishers [11-12], and consultants [13]. Further criticisms were declared by the European Federation of Academies of Sciences and Humanities [14], the Network of Scientific Journals of Latin America and the Caribbean, Spain and Portugal (Redalyc), the Latin American Council of Social Sciences (CLACSO) [15], and Ameli Open Knowledge for Latin America and the Global South (AmeliCA) [16], among others.

Setting a precedent in our region, during the recent “Steering Committee on cooperation on science and technology between the European Union and Argentina”, a joint communication was released stating that “**Argentina will join cOAlition S**” [17]. Considering the economic implications of Plan S for signatories and their research communities, and the fact that the implementation guidelines do not demonstrate how publishers will provide “transparent costing and pricing” and acceptable caps for article processing charges (APC), it seems reasonable for

Latin America to wait to join Plan S until its first evaluation informs results and implications for less privileged countries and institutions. This would give time for further consultations within our region, before any agreement is signed, which would impose a significant conversion of funding allocation for scholarly publishing starting no later than 2021. Regional funding restrictions are not trivial in these regards. We are in a context of a severe economic crisis and systematic spending cuts on R&D [18-21] and medium term perspectives require thorough analysis of alternatives and costs involved.

As active members of the research and publishing enterprise, we share the spirit of Plan S of achieving immediate and full Open Access of scholarly publishing, but as many critics of Plan S, we do not agree with its implementation guidelines. We believe that the potential adhesion of Argentina and other countries from this region to Plan S ignores the reality of Latin America, and harms at a regional and global level the advancement of non-commercial Open Access initiatives. We understand that Plan S focuses its implementation on journals with article transaction models dependent on APC, which in turn will rebound in a withdrawal of resources investment in public non-commercial infrastructure for open scientific communications, which are crucial to move towards Open Science processes and practices in Latin America. We consider that while this initiative will influence the publishing ecosystem worldwide, its design has ignored more than 20 years of agenda on Open Access from the Global South and the paradigm of a contrasting scholarly publishing landscape in Latin America [16].

Plan S guidelines were released without a participatory consultation with the many stakeholders from diverse fields and institutional backgrounds of different regions of the world. Nevertheless, we applaud the recent update on the original Plan, prompted by the more than 600 responses of the research community during an “open consultation” [22]. These questionings attenuated some of the requirements of the first version of the initiative [23], such as that very few of the current Open Access journals are compliant with Plan S [24], and that APC based journals are better positioned to comply with Plan S. In our opinion, some advances in the updated version of Plan S, outlined in the recent Scholarly Publishing and Academic Resources Coalition (SPARC) report, are: (i) the recognition of repositories as comparable to Open Access journals and other platforms; (ii) the right of authors and/or institutions to retain copyright at no extra cost; (iii) a commitment to assess research outputs based on their intrinsic value; (iiii) the extension of the deadline to implement the Plan from 2020 to 2021 [23].

From a geopolitical perspective, there are fundamental differences in the notion of scientific publishing and scholarly publications, which appear to be handled as a commodity prone to commercialization in Plan S guidelines, while in Latin America, are conceived as the community sharing of public goods. Latin American scholarly publishing is supported by non-commercial and publicly-funded infrastructure oriented to advance Open Access as the natural form of scientific communication. In essence, in our region, scientific outputs belong to the academy and not to large publishers, with a tradition of free to publish and free to read collaborative/cooperative publishing [25], which is considered in the region a universal right [26]. For instance, since 2003 the non-for profit Redalyc [27] has pioneered as an inclusive network of scientific journals of Latin America and the Caribbean, Spain and Portugal, functioning as a hub for scientific information and contributing to the visibility of journals published in the region. Redalyc now contains more than a half million full-text articles from 1,260 Open Access peer-reviewed journals published by 622 publishers from 22 Iberoamerican countries [27], with an average of 4 million article downloads per month [28-29]. In addition, Redalyc supports AmeliCA

an inter-institutional community initiative involving UNESCO and CLACSO as partners, which pursues a collaborative and sustainable non-commercial enterprise for Open Knowledge in Latin America and the Global South [30]. AmeliCA intends to contribute to the **non-subordinated** integration of the South in the universal dialogue of scientific communication, “*recognizing its experience and leadership in defending and contributing to Open Access*” [31]. AmeliCA shares the ultimate goal of plan S, that pivotal large-scale steps must be taken to achieve Open Access, and recognize a need to review current research assessment schemes in the region [16] that redound in incorrectly based metrics and misused incentives, and thus both express their commitment to the San Francisco Declaration on Research Assessment (DORA) [32]. However, AmeliCA does not agree with the mandate that Open Access publication fees should be covered by the funders or universities, instead of funneling those resources to secure the development of academic infrastructure to take back control of scientific publication by academic institutions [16].

Towards the implementation of resources to sustain Open Access publishing, Plan S suggest capping of APC fees and eventual publishing waivers for unprivileged countries, which represents a naïve and condescending partial answer to financial restrictions on publishing for researchers in countries and institutions with limited economic resources. It reveals a patronizing view of scientific sharing which translates into the control of science in the hands of rich countries and diminishes the Global South as a mere passive observer with no control beyond global commercial agreements between wealthy governments and the few large oligopolists commercial publishers [16, 33]. Plan S overlooks that its mandates affect scholar communication structures from other regions, regardless of signing to their initiative. Moreover, waiver policies and APC caps are indifferent to the tradition of non-commercial publishing in Latin America.

Latin America has historically led a firm and rising Open Access movement and represents the worldwide region with larger adoption of Open Access practices [34-35]. Our tradition in Open Access publishing has redounded in new avenues of engagement of scholarly publishing such as alternative impact in the demand of scientific articles from the public audience [28]. The systematic use of scientific articles by students and non-academic public, observed in our region, questions the scientometric assessment of research outputs based solely on citations: the traditional currency for legitimization of large commercial publishers from the Global North.

The discussion over Plan S as a global proposal for accelerating Open Access has been pivotal to expose how unbalanced the debates are being mostly circumscribed on the Global North between a condensed elite group involved in the scholarly publishing market [36]. Latin America experience encourages knowledge as a public good in non-commercial platforms, which reverberates in an unparalleled apprehension of the scholarly record by the general public [29]. We argue that our limited resources should be channeled to maintaining and scaling these not-for-profit initiatives instead of deliberately infusing money to publish in market-oriented journals.

It is our belief that to contribute to the democratization of knowledge we must promote policies, actions and funding to implement Open Access while improving the quality and retaining control of scholarly editorial processes by the scholarly community. We need to complement traditional bibliometric indicators with novel Open Access indicators appropriate for regional scenarios and encourage worldwide access to knowledge as a human right [26]. For

instance, Argentina, where the majority of the scientific enterprise is financed by public funds, has advanced in a plethora of initiatives to promote Open Access [37]. Some landmarks are the creation by the former Ministry of Science (now a Secretariat) in 2009 of the National System of Science and Technology Digital Repositories [38], which now harbors over 226,063 open access publications under the guidance of an Experts Committee on Digital Repositories of Science and Technology. In this direction, the former Argentinian government has promoted law 26,899 [39], which was approved in Congress and enacted on December 2013, encouraging priority to repositories in the path to Open Access. The essence of this legislation is that knowledge as a public good, financed by society, must be accessible to all citizens. This act states in its second article that Argentine public organisms and Science and Technology institutions must establish policies for public access management and long-term data preservation of primary research, to ensure the public availability of research outputs.

These actions and initiatives are not region-agnostic. Similar repository legislations were simultaneously approved in Peru in 2013, Mexico 2014, and were discussed in Congress in Brazil but not yet approved. In addition, public Science and Technology agencies from Argentina, Brazil, Colombia, Costa Rica, Chile, Ecuador, El Salvador, Mexico, Peru and Uruguay have joined since 2012, to reinforce their repositories systems, into a regional network of national systems of digital repositories dubbed “LA Referencia” [40]. This federated network is a member of the Confederation of Open Access Repositories (COAR, [41]), which increases interoperability in the region and provides public access to over 1,668,552 documents including articles, reports and academic theses. Concerning the Plan S initiative discussion, La Referencia has issued a document with principles and actions proposed for Latin America recommending to “*Have a better balance between funding of resources purchased from commercial companies and the public resources destined to strengthen the national systems and platforms*” [42].

In addition, the Consortium of National Agencies from Ibero-América that are responsible for the national purchase of subscription to journals, at The First Consortium Assembly, back in 2017, agreed in a statement indicating that: “*an OA expansion policy, through the payment of APC fees, is impossible to undertake from a financial point of view for the participant countries. Not to create grants to pay a publication in OA-APC journals is recommended to the institutions*” [43]. With this vision implemented in Argentina, which is in line with the tradition of collaborative/cooperative information systems in Latin America, and considering the present severe economic restrictions in regional research budgets, the decision of Argentina’s government to join Plan S could be postponed until the initiative shows in its first evaluation of results in 2024, that the funds are also directed to build a more inclusive, participatory and non-commercial global Open Access future.

The guidelines of Plan S, in its original and revised versions, fail to tackle the essential and chronic issues of traditional scholarly publishing, such as the concentration of articles in large international commercial publishers with extraordinary profit margins [44] subsidized with both research money and free labor. We cannot emphasize more that a reasonable APC for a Global North research institution will most probably be unaffordable and unreasonable for a developing region institution [15]. It is becoming more evident that given that legacy publishers will most probably shift from a subscription based model to APC, and in a context of their important share of the scholarly publishing landscape and influence in research evaluation indicators, Plan S would eventually pave the way to a collective and global pay-to-publish system. As stated by the OA2020 Mainland China Signatory Libraries responding to Plan S

Guidance on Implementation, we need to: “*avoid the perverse effect of giving no-fees journals an incentive to start charging fees*” [45]. As of today, 70% of Open Access journals in the Directory of Open Access Journals (DOAJ) do not charge APCs. In other words, Plan S could imply a direct transfer of funds to support the cost of publishing from research towards prohibitive fees charged by outsourced private for-profit publishers [46]. As pointed out by John Holmwood: “*private benefit is adopting the mantle of public value and, if the advocates of commercialisation succeed, the loss will be that of the public in whose name it is taking place*” [47]. In a plausible context of inaccessible levels of APC to the Global South this would lead to Latin American researchers being able to read but not to publish in international journals [48].

Could it be, as suggested by Richard Poynder that the Global South may “*not have to sign Plan S... to benefit from it*” and should “*focus on supporting existing APC-free journals and creating new ones for the publish element, and negotiate citizen-wide national licensing deals ... for the read element*”? [48]. In this line, Anubha Sinha, questioning the proposal of India to join Plan S stated that: “*it makes little sense for developing countries to spend an enormous amount on APCs demanded by a foreign publishing oligopoly...Plan S is not exactly a breakthrough plan for the global south as it does not sufficiently undercut the market power of the oligopoly*”[49]. A recent report highlights that mean publication costs for a scholarly article are ca. US\$400, ranging from less than US\$200 to over S\$1,000 per article in peer reviewed journals with rejection rates >90% of submissions [44]. Nevertheless, for instance the Journal of Open Source Software publish articles with internal costs <US\$10 [50] as do the preprint server arXiv [51]. In this scenario, it is also worth discussing during the global transition to full Open Access, alternative cost-effective initiatives such as funders mandate on preprint deposition which could lead to immediate access to scientific research, if peer-review is decoupled from publishing and post-publication evolves in new models of community based peer assessment [52]. This “publish first, curate second” approach could accelerate the dissemination of scholarly outputs eventually leading to a more rapid advancement of the research enterprise [53-54].

In sum, we ought to interpellate asymmetrical discussions where privileged institutions unilaterally draft and commit the forthcoming global scholarly publishing landscape. We should embrace a more reasonable and inclusive agenda where nations and institutions of diverse realities may participate in their diversity on the scientific discourse and propose a fair, equilibrated and rational ecosystem for the future of publishing. We believe we are at the verge of a fundamental shift in scholarly publishing and we call to substantiate a much-needed further dialogue with a focus on regional consequences of proposed agreements and contemplation of our Latin American traditions and realities, which are featured as an international example [55]. We agree with the main principle of Plan S regarding all scholarly publications published as Open Access, but we infer that the implementation guidelines do not demonstrate how publishers will provide “transparent costing and pricing” and acceptable caps for less privileged institutions and countries. Consequently, it seems reasonable, as mentioned above, for Latin America to wait to join to Plan S until its first evaluation would verify and inform results and implications for less privileged countries and institutions.

Competing interest statement

The authors of this paper work in Agriculture (HD) and Social Sciences (DB) research networks, which together with health, are among disciplines with a tradition of also publishing in regional

quality journals, in local languages. In addition, HD is an eLife and ASAPbio ambassador and a bioRxiv Affiliate. DB employer is CLACSO. She represents CLACSO at AmeliCA-Open Knowledge; She is a member of the Advisory Board of DORA; Latin America content contributor for UNESCO-Global Open Access Portal; member of the Experts Committee of Science and Technology Digital Repositories National System, Argentina; member of the Advisory Board of Open Access India and Publi.ca (Canada), and Member of the Board of the Redalyc-CLACSO collection of 930 social science journals.

References

- [1] cOAlition S. (2019). Plan S: Principles and Implementation <https://www.coalition-s.org/principles-and-implementation/> Accessed June 10, 2019.
- [2] cOAlition S. (2019). Plan S: Funders <https://www.coalition-s.org/funders/> Accessed June 10, 2019.
- [3] Baum, B., & Coen, E. (2019). Evolution or revolution? Changing the way science is published and communicated. *PLoS biology*, 17(6), e3000272. <https://doi.org/10.1371/journal.pbio.3000272>
- [4] Kowaltowski, A. J., & Oliveira, M. F. (2019). Plan S: Unrealistic capped fee structure. *Science*, 363(6426), 461-461. <https://doi.org/10.1126/science.aaw5815>
- [5] 1,788 Signatories (2019). Reaction of Researchers to Plan S; Too far, too risky? Open Letter <https://sites.google.com/view/plansopenletter/open-letter> Accessed June 10, 2019.
- [6] Brainard, J. (2019). Scientific societies worry about threat from Plan S. *Science*. Vol. 363, Issue 6425, pp. 332-333. <https://doi.org/10.1126/science.363.6425.332>
- [7] de Knecht, S. (2019). The death of the learned Societies? ScienceGuide <https://www.scienceguide.nl/2019/06/the-death-of-the-learned-societies/> Accessed June 10, 2019.
- [8] The Society Publishers' Coalition (2019). Plan S Consultation Response from the Society Publishers' Coalition <https://www.biologists.com/wp-content/uploads/SPC-Consultation-Response-8-Feb-2019.pdf> Accessed June 10, 2019.
- [9] Purton, M., Michelangeli, F., & Fésüs, L. (2019). Will Plan S put learned societies in jeopardy? *FEBS letters*, 593(4), 383-385. <https://doi.org/10.1002/1873-3468.13333>
- [10] McNutt, M. (2019). Opinion: "Plan S" falls short for society publishers—and for the researchers they serve. *Proceedings of the National Academy of Sciences*, 116(7), 2400-2403. <https://doi.org/10.1073/pnas.1900359116>
- [11] Mudditt, A. (2019). Plan S and the Transformation of Scholarly Communication: Are We Missing the Woods? *The Scholarly Kitchen*. <https://scholarlykitchen.sspnet.org/2019/06/03/plan-s-and-the-transformation-of-scholarly-communication-are-we-missing-the-woods/> Accessed June 10, 2019.
- [12] Pulverer, B. (2018). Open Access—or Open Science? *The EMBO Journal* 37, e101215. <https://doi.org/10.1002/emboj.2018101215>

- [13] Clarke, M. (2018). Plan S: Impact on Society Publishers. The Scholarly Kitchen. <https://scholarlykitchen.sspnet.org/2018/12/05/plan-s-impact-on-society-publishers/> Accessed June 10, 2019.
- [14] ALLEA (2018). Systemic reforms and further consultation needed to make Plan S a success. <https://www.allea.org/systemic-reforms-and-further-consultation-needed-to-make-plan-s-a-success/> Accessed June 10, 2019.
- [15] Sayer, L. (2019). Plan S and Open Access in Latin America: Interview with Dominique Babini. The International Science Council Blog. <https://council.science/current/blog/plan-s-and-open-access-interview-with-dominique-babini> Accessed June 10, 2019.
- [16] Becerril-García, A. (2019). AmeliCA vs Plan S: Same target, two different strategies to achieve Open Access. <http://www.amelica.org/en/index.php/2019/01/10/amelica-vs-plan-s-mismo-objetivo-dos-estrategias-distintas-para-lograr-el-acceso-abierto/> Accessed June 10, 2019.
- [17] ARG-EU (2019). Joint Communiqué. XI Joint Steering Committee Meeting of the Bilateral Agreement on Science and Technology between the European Union and Argentina. http://ec.europa.eu/research/iscp/pdf/policy/ec_rtd_jc-11th-jscm-eu-ar_062019.pdf Accessed June 10, 2019.
- [18] Roman, V. (2018). Argentina's economic crisis could trigger scientific 'collapse,' researchers warn. Science. <https://www.sciencemag.org/news/2018/09/argentina-s-economic-crisis-could-trigger-scientific-collapse-researchers-warn> Accessed June 10, 2019. <https://doi.org/10.1126/science.aav5602>
- [19] Wessel, L. (2019). Thousands of scientists in Argentina strike to protest budget cuts. Science. <https://www.sciencemag.org/news/2019/04/thousands-scientists-argentina-strike-protest-budget-cuts> Accessed June 10, 2019. <https://doi.org/10.1126/science.aax8765>
- [20] Carignano, H., Jaworski, J.P. (2019). Argentina's subpar investment in science. Science. Vol 363, Issue 6428, pp. 702. <https://doi.org/10.1126/science.aaw3872>
- [21] Wessel, L. (2019). Austerity cuts threaten future of science in Argentina. Science. Vol364, Issue 6439, pp. 419. <https://doi.org/10.1126/science.364.6439.419>
- [22] cOAlition S. (2019). Feedback on the draft implementation guidance of Plan S [Data set]. Zenodo. <https://zenodo.org/record/3250081/#.XQ0RWLxKiUm> Accessed June 19, 2019.
- [23] SPARC Europe. (2019). SPARC Europe analysis of the new revised Plan S policy. https://sparceurope.org/briefing_revisedplans_june2019/ Accessed June 10, 2019.
- [24] Frantsvåg, J. E., & Strømme, T. E. (2019). Few Open Access Journals Are Compliant with Plan S. Publications, 7(2), 26. <https://doi.org/10.3390/publications7020026>
- [25] Becerril-García, A., & Aguado-López, E. (2018). The End of a Centralized Open Access Project and the Beginning of a Community-Based Sustainable Infrastructure for Latin America: Redalyc.org After Fifteen Years the Open Access Ecosystem in Latin America. In ELPUB 2018. <https://hal.archives-ouvertes.fr/hal-01816693/>
- [26] CLACSO (2015). CLACSO's Declaration on Open Access to knowledge managed as a commons by the scholarly community

<https://www.clacso.org.ar/conferencia2015/documentos/asamblea/declaraciones/CLACSO-Declaration-on-open-access-to-knowledge-managed-as-a-commons-by-the-scholarly-community.pdf> Accessed June 10, 2019.

[27] Red de Revistas Científicas de América Latina y el Caribe, España y Portugal
<http://www.redalyc.org/> Accessed June 10, 2019.

[28] Alperin, J. P. (2015). The public impact of Latin America's approach to open access [Doctoral dissertation, Stanford University].
<https://stacks.stanford.edu/file/druid:jr256tk1194/AlperinDissertationFinalPublicImpact-augmented.pdf>

[29] Alperin, J. P. (2016). Research is also for non-scholars: Lessons from Latin America [Conference Presentation]
https://figshare.com/articles/Research_is_also_for_non_scholars_Lessons_from_Latin_America/3187551

[30] AmeliCA: Ameli, Conocimiento Abierto para América Latina y el Sur Global
<http://www.amelica.org/> Accessed June 10, 2019.

[31] AmeliCA: Que es Ameli, Conocimiento Abierto para América Latina y el Sur Global
<http://www.amelica.org/en/index.php/que-es-ameli/> Accessed June 10, 2019.

[32] San Francisco Declaration on Research Assessment <https://sfdora.org/> Accessed June 10, 2019.

[33] Larivière, V., Haustein, S., & Mongeon, P. (2015). The oligopoly of academic publishers in the digital era. PloS one, 10(6), e0127502. <https://doi.org/10.1371/journal.pone.0127502>

[34] Babini, D. (2019). La comunicación científica en América Latina es abierta, colaborativa y no comercial: desafíos para las revistas. Palabra Clave (La Plata), 8(2), e065.
<https://doi.org/10.24215/18539912e065>

[35] Babini, D., & Machin-Mastromatteo, J. D. (2015). Latin American science is meant to be open access: Initiatives and current challenges. Information Development, 31(5), 477-481.
<https://doi.org/10.1177/0266666915601420>

[36] Tennant, J. (2019). Plan S – Time to decide what we stand for. LSE Impact Blog. London School of Economics. <https://blogs.lse.ac.uk/impactofsocialsciences/2019/03/05/plan-s-time-to-decide-what-we-stand-for/> Accessed June 10, 2019.

[37] UNESCO Global Open Access Portal, Latin America and the Caribbean: Argentina
<http://www.unesco.org/new/en/communication-and-information/portals-and-platforms/goap/access-by-region/latin-america-and-the-caribbean/argentina/> Accessed June 10, 2019.

[38] Sistema Nacional de Repositorios Digitales
<http://repositoriosdigitales.mincyt.gob.ar/> Accessed June 10, 2019.

[39] Act 26,899: Institutional Open Access Digital Repositories
<http://repositoriosdigitales.mincyt.gob.ar/files/Ley26899RepositoriosDigitalesING.pdf> Accessed June 10, 2019.

- [40] LA Referencia: Federated Network of Institutional Repositories of Scientific Publications <http://www.lareferencia.info/en/institutional/about-us> Accessed June 10, 2019.
- [41] COAR: Confederation of Open Access Repositories <https://www.coar-repositories.org/> Accessed June 10, 2019.
- [42] LA Referencia (2019). Scholarly Communication and Open Access Actions for a Public Policy in Latin America. <http://www.lareferencia.info/es/recursos/ciencia-abierta-documentos-externos/93-scholarly-communication-and-open-access> Accessed June 10, 2019.
- [43] Statement: First Consortium Assembly From Ibero-America and the Caribbean. (2017). <http://reuniondeconsorcios.conricyt.mx/index.php/primera-reunion/declaraciones/?lang=en> Accessed June 10, 2019.
- [44] Grossmann, A., Brembs, B. (2019). Assessing the size of the affordability problem in scholarly publishing. PeerJ Preprints 7:e27809v1 <https://doi.org/10.7287/peerj.preprints.27809v1>
- [45] OA2020 Mainland China Signatory Libraries responded to Plan S Guidance on Implementation (2019). <http://mailman.ecs.soton.ac.uk/pipermail/goal/2019-March/005095.html> Accessed June 10, 2019.
- [46] Mukunth, V. (2019). Six Concerns Over India Joining the Plan S Coalition for Science Journals. The Wire. <https://thewire.in/the-sciences/six-concerns-over-india-joining-the-plan-s-coalition-for-science-journals> Accessed June 10, 2019.
- [47] Holmwood, J. (2018). The expansion of open access is being driven by commercialisation, where private benefit is adopting the mantle of public value. LSE Impact Blog. London School of Economics. <https://blogs.lse.ac.uk/impactofsocialsciences/2018/10/02/the-expansion-of-open-access-is-being-driven-by-commercialisation-where-private-benefit-is-adopting-the-mantle-of-public-value/> Accessed June 10, 2019.
- [48] Poynder, R. (2019). Plan S and the Global South—What do countries in the Global South stand to gain from signing up to Europe’s open access strategy? LSE Impact Blog. London School of Economics. <https://blogs.lse.ac.uk/impactofsocialsciences/2019/03/06/plan-s-and-the-global-south-what-do-countries-in-the-global-south-stand-to-gain-from-signing-up-to-europes-open-access-strategy/> Accessed June 10, 2019.
- [49] Sinha, A. (2019). Should India adopt Plan S to realise Open Access to Public-funded Scientific Research? Access To Knowledge (A2K). The Center for Internet and Society. <https://cis-india.org/a2k/blogs/should-india-adopt-plan-s-to-realise-open-access-to-public-funded-scientific-research> Accessed June 10, 2019.
- [50] Tennant, J. (2018). Why the term ‘Article Processing Charge’ (APC) is misleading. Green Tea and Velociraptors Blog. <http://fossilsandshit.com/the-term-article-processing-charge-is-misleading/> Accessed June 10, 2019.
- [51] Cornell University Library (2010). arXiv Business Model White Paper. arXiv. <https://arxiv.org/help/support/whitepaper> Accessed June 10, 2019.
- [52] Sever, R., Eisen, M., & Inglis, J. (2019). Plan U: Universal access to scientific and medical research via funder preprint mandates. PLoS biology, 17(6), e3000273. <https://doi.org/10.1371/journal.pbio.3000273>

- [53] Sarabipour, S., Debat, H. J., Emmott, E., Burgess, S. J., Schwessinger, B., & Hensel, Z. (2019). On the value of preprints: An early career researcher perspective. *PLoS biology*, 17(2), e3000151. <https://doi.org/10.1371/journal.pbio.3000151>
- [54] Stern, B. M., & O'Shea, E. K. (2019). A proposal for the future of scientific publishing in the life sciences. *PLoS biology*, 17(2), e3000116. <https://doi.org/10.1371/journal.pbio.3000116>
- [55] Alperin, J.P., Babini, D., Chan, L., Gray, E., Guedon, J-C., Joseph, H., Rodrigues, E., Shearer, K., Vessuri, E. (2015). Open Access in Latin America: A paragon for the rest of the world. SPARC. <https://sparcopen.org/news/2015/open-access-in-latin-america-a-paragon-for-the-rest-of-the-world/> Accessed June 10, 2019.