

## Plan S: What strategy now for the Global South?

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*This document ends with an interview with Omar Barreneche, Executive Secretary of Uruguay's National Agency for Research and Innovation (ANII). (Click [here](#) to go direct)*

*Since the 2002 Budapest Open Access Initiative ([BOAI](#)) the OA movement has had many successes, many surprises, and many disappointments. OA initiatives have also often had unintended consequences and the movement has been beset with disagreement, divisiveness, and confusion. In that sense, the noise and rancour surrounding [Plan S](#) is nothing new, although the discord is perceptibly greater. What seems clear is that [Plan S](#) raises challenging questions for those in the Global South.<sup>1</sup> And even if [Plan S](#) fails to win sufficient support to achieve its objectives, ongoing efforts in Europe to trigger a “global flip” to open access, and the way in which open content is likely to be monetised by commercial publishers, both suggest that the South needs to develop its own (alternative) strategy.*

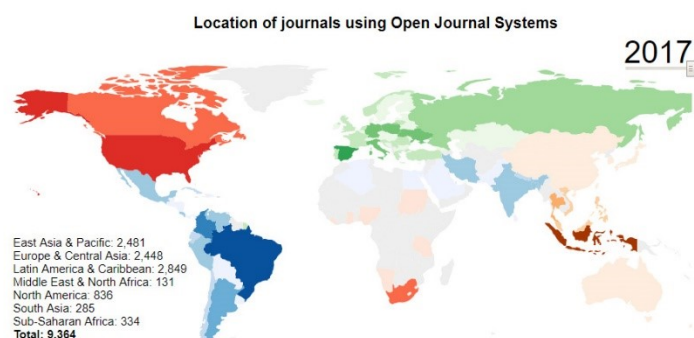


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The two greatest disappointments OA advocates have faced are the failure of open access to solve the [affordability problem](#) and the apparent inability (or unwillingness) of the movement to address the problem of [epistemic injustice](#)<sup>2</sup> that has for so long been inherent to the scholarly communication system. We were told that open access would fix both these problems.<sup>3</sup>

Today we see that while paywalls are falling, subscriptions still dominate scholarly publishing. This is clearly problematic for a movement founded 17 years ago to eradicate all paywalls. Moreover, as paywalls fall, they are generally being replaced by a deeply unsatisfactory pay-to-publish arrangement. So, although more research is becoming freely available, authors who do not have the wherewithal to pay expensive article-processing charges ([APCs](#)) are discovering that they cannot afford to publish their research open

<sup>1</sup> I do not believe there is a term that can satisfactorily cover what I mainly refer to as the [Global South](#) in this document. Other terms used are, of course, developing countries, low- and middle-income countries ([LMICs](#)) or even [LLMICs](#). I hope it will be clear, however, from this what I mean when I use the term Global South, or sometimes just “South”.

<sup>2</sup> This is a relatively new term whose meaning is perhaps not fully settled. I use it here refer to “those forms of unfair treatment that relate to issues of knowledge, understanding, and participation in communicative practices.”

<sup>3</sup> For instance the BOAI includes the [statement](#): “Removing access barriers to this literature will accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge.”

access, even when they are mandated to do so. [Researchers](#) in the Global South are particularly vulnerable, but even [those](#) based in [wealthy research institutions in the Global North](#) are impacted.<sup>4</sup>

In fact, open access currently looks set to *worsen* both the affordability and the epistemic injustice problems. Certainly, if Plan S succeeds and/or a global flip to pay-to-publish OA occurs, these problems are likely to be baked into the new OA environment.

The push for OA raises two further issues for the research community.

The first concerns access to all the historical research that the so-called [publishing oligopoly](#) has appropriated over time. By requiring authors to assign the copyright in their works to them as a condition of publishing, legacy publishers have acquired huge backfiles of scholarly content that will remain behind paywalls for years to come, if not indefinitely. Elsevier, the largest scholarly publisher, now has [over 15 million publications](#) in its [ScienceDirect](#) database, with documents dating back to 1823. For so long as subscription journals continue to operate these backfiles will continue to grow, and accessing them could remain costly and problematic.<sup>5</sup>

Moreover, even when the copyright in scholarly works expires, and they enter the [public domain](#), they often remain paywalled, or at least [datawalled](#) (see, for instance, [this](#) article from 1862).

Nor should we doubt legacy publishers' determination to retain a tight grip on this content, not least because its value to them will increase over time. As Elsevier Chairman [Youngsuk 'YS' Chi](#) put it last year: "Let me make it clear that we are not EVER going to take our hands off the content, because having the content in a structured and curated way is very important to the analytics business."

What Chi is signalling is that as publishers reinvent themselves as workflow solution providers and analytics companies, they will be monetising scholarly content in new ways. This has important implications for both affordability and epistemic justice.

The second (related) issue is that although anyone (in theory) can copy and distribute public domain and [CC BY](#)-licensed content, doing so in an effective way is both difficult and expensive.<sup>6</sup> Legacy publishers have a huge advantage here: not only do their pre-existing databases of content give them a significant head start, but as the beneficiaries of years of subscription revenues, they have had the necessary financial resources over time to build large, sophisticated platforms in which to house that content. To this they have added rich metadata, and powerful discovery and content management tools able to exploit that metadata (Chi's "structured and curated" content).

Publishers have also been using their profits to buy start-ups with cutting-edge technology and products able to leverage scholarly content in new ways. The know-how and technologies these acquisitions bring can then be linked to and/or bolted onto publishers' platforms, allowing them to create a portfolio of associated products and services that they anticipate will become indispensable to the research community in the future. The opportunities that publishers see this presenting for them can be gauged by viewing the embedded video [here](#). (Or simply look at this [image](#)).

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<sup>4</sup> Consider also what might happen if the world converted to open access and a country's or institution's OA fund ran out. Presumably [this solution](#) will not be possible?

<sup>5</sup> While publishers sell perpetual access and backfile licences these can require paying a one-off cost *plus* a [continuing annual hosting fee](#). It [may also be necessary](#) to be an existing subscriber in order to buy/rent these and the details and costs have [not always been made apparent to institutions when they sign a licensing agreement with a publisher](#). Either way, subscription costs look set to remain a fixture in scholarly communication well into the future, and I believe indefinitely. And as things stand, institutions seem unlikely to have any more control over pricing than they have today.

<sup>6</sup> There is [growing recognition](#) that digital publishing is actually more expensive than print publishing.

In addition, publishers will be able to add content to their platforms that has entered the public domain and, importantly, new papers published by others where a CC BY licence has been attached.

Perhaps legacy publishers are not yet doing much of the latter. But if they are not, it is because they are sensitive to the potential political fallout that doing so today could spark. Such sensitivities, however, are likely to dissipate over time.

### Implications for the research community

What does this mean for the research community? It means that (as things stand) it is far from clear that open access will deliver on its promise of reducing the costs of scholarly communication or solve the epistemic injustice problem (quite the reverse in fact). In part, this is because, rather than reduce the power of legacy publishers (as it was expected to do), open access looks set to further empower them.

Publishers have already embedded themselves firmly into the new OA environment, generally on their own terms. Now they are developing products that will allow them to embed themselves into the entire research process. This will give them even greater control and power than they have had historically. For instance, they will be able to create new subscription services around the content they host and integrate these services into their platforms in a way that will allow them to lock in customers and levy high prices.

It is important to note that this will be possible partly because, in an OA environment, researchers continue to give away their intellectual property.<sup>7</sup> Indeed, where they incur article-processing charges they are (in effect) not only paying publishers to take their research off their hands but allowing them to monetise it in new ways. Many OA advocates appear not to realise (or do not care) that both CC BY-licensed and public domain content can be sold by anyone, often at high prices – a fact that the author of this *Motherboard* [article](#) seems to have been surprised by.

And as AI capabilities grow, the ability to monetise scholarly content in ever more sophisticated ways will further increase its value to publishers<sup>8</sup>. This will see the [platform capitalism](#) pioneered by companies like Facebook and Google come to dominate the academic world too.<sup>9</sup> In fact, companies like ResearchGate and Academia.edu are already doing this. Academia.edu, for instance, leverages the content that academics freely post on its platform to sell subscription ([membership](#)) services back to them. It is therefore no surprise that legacy publishers have been issuing [takedown notices](#) to Academia.edu and [suing](#) ResearchGate. They take the view that these new entrants are bent on eating their lunch.

The key point here is that even if all scholarly content becomes open access the research community can expect to have to continue using legacy publishers' platforms, and to pay them for doing so. They will use them to publish their research and to access both paywalled and OA content<sup>10</sup>. In addition, they will continue to need to use them for the increasingly sophisticated content management and

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<sup>7</sup> Historically publishers acquired exclusive rights in the content they published. But CC BY licences, of course, still allow publishers to reuse and sell content licensed in this way. It's just that everyone now has the right.

<sup>8</sup> See [this kind](#) of development for instance.

<sup>9</sup> Which is one step away from [Surveillance Capitalism](#).

<sup>10</sup> Currently it is possible to access open content on, say, ScienceDirect without payment – which operates a kind of [freemium](#) model. But if content syndication became a thing, or supercontinent emerged (See next page) it seems highly likely that publishers will start charging users to search open access content – much as people currently have to pay to access services like Web of Science and Scopus.

discovery tools that publishers are developing, *plus* the new products and services that will be built into and/or around publishers’ platforms.<sup>11</sup>

And the more OA content that becomes available on the Web, the greater will be the need for good discovery and content management tools to find, sift and make sense of it. Much of this open content will be published on legacy publishers’ platforms, which will remain the primary (often exclusive) source for it. As I suggested, however, publishers will at some point also want to add third-party content to their databases, if only to compete with pirate sites like [Sci-Hub](#) – which has accustomed researchers to being able to conduct one-stop searches across the entirety (or 85%+) of the research corpus through a single user-friendly interface.<sup>12</sup> If only to protect their business, therefore, publishers will want to start hoovering up scholarly content from elsewhere and adding it to their platforms.

This is why we have started to see [discussion](#) over whether scholarly content can/will/should be syndicated. In this scenario, one-stop discovery services (with links to the full-text where not available locally) could be offered, either by legacy publishers themselves or perhaps by intermediaries like Digital Science’s [Dimensions](#) and [ReadCube](#), or, say, [ScienceOpen](#).<sup>13 14 15</sup>

More ominously, we are seeing [speculation](#) that content and discovery “supercontinents” (or even possibly a single supercontinent) could emerge.

The company most likely to dominate in this new environment (much as it currently dominates the journal subscription market) is Elsevier. With a clear eye on the future, Elsevier has not only assembled the largest collection of scholarly works but the most compelling portfolio of linked and satellite services. For a sense of how it has gone about this one could do worse than read [this article](#). And we can be sure that Elsevier is devoting a lot of time and effort right now to developing (or acquiring) ever more sophisticated AI and discovery tools.

Whether syndication, aggregated search and/or supercontinents do emerge is not certain, but it seems highly likely. True, getting publishers to co-operate on syndication is a big challenge. But if they don’t, then the emergence of supercontinents is more likely. [Roger Schonfeld](#) has [argued](#) that these scenarios would “produce unmanageable dependence for publishers.”<sup>16</sup>

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<sup>11</sup> Currently ScienceOpen charges *publishers* to [index their journals](#). But one can easily imagine that, at some point in the future, charges will be levied on *users* wanting to use the discovery and other services developed on the platform (or at least for advanced search features). We should also note that currently much of the content ScienceDirect indexes is paywalled. This will clearly change as open content grows.

<sup>12</sup> One might argue Sci-Hub demonstrates that providing one-stop discovery services is simple and cheap to do. However, we do not have a clear picture of how Sci-Hub is funded. More importantly, Sci-Hub is parasitical on scholarly content and so does not have to fund all the things publishers do to assemble and present that content. There is, of course, also Google Scholar, which is free to use. But Google has a habit of dumping products when it tires of them ([most recently](#) with Google +). And who is to say that it will not start charging for discovery services? Either way, it is publishers’ platforms that users will want to use, and it seems likely that publishers will be able to charge users more or less whatever they want.

<sup>13</sup> ScienceOpen [says](#) it has now indexed 33 million article records.

<sup>14</sup> This is a complicated and emerging area, as Roger Schonfeld explained last year [here](#). What is self-evident is that in owning large databases of content legacy publishers start out in an extremely advantageous position.

<sup>15</sup> See also the recently-announced product [RightFind](#).

<sup>16</sup> Another avenue being pursued is federated authentication. But this has its [own challenges](#). (See [also](#)).

Aware of the dangers this poses for the research community,<sup>17</sup> OA advocates are busy trying to assemble rival non-profit solutions for the discovery and management of open content.<sup>18</sup> But it is far from clear that these initiatives can compete effectively with for-profit publishers – not least because, unlike publishers, they will not be able to offer access to paywalled content alongside open content (or they will only be able to do so on limited terms dictated by publishers). As such, they will be able to provide access to only a small part of the research corpus.

More importantly, we have learned that obtaining public funding for scholarly infrastructure projects is extremely difficult (certainly in the neoliberal environment of the developed world) and obtaining funding for the continued upkeep and maintenance of such projects is even more difficult. Community-owned and non-profit organisations in the North that are focused on scholarly content, therefore, inevitably struggle to survive. We tend to see such initiatives privatised (as happened with [Knowledge Unlatched](#)) fail (as happened with the [Digital Preservation Network](#)), or simply fade away (as currently seems to be the situation with [ROARMAP](#)).

As the CEO of start-up [Science-Metrix Inc.](#) [Éric Archambault](#) noted in 2016, developing and maintaining digital infrastructure requires very deep pockets and long-term commitment. Public funding is not able to offer these, certainly in Europe and North America. Doubtless that is why last year Archambault [sold his research analytics company](#) to Elsevier.

In short, the affordability problem looks set to worsen. And since the Global South has less money to pay APCs, let alone all the other services that will be embedded in and around publishers' platforms, the epistemic injustice problem will surely also worsen. I will discuss these issues in more depth below.

## Big Deals old and new

In addition, as pay-to-publish gold OA increasingly elbows aside [green OA](#) as the preferred way to provide open access it is becoming apparent that for so long as subscription publishing co-exists with pay-to-publish open access, the research community will have to pay for both (where before both costs were covered by subscriptions). This is further exacerbating the affordability problem, and as the main proponent of pay-to-publish gold OA<sup>19</sup> it is Europe that currently faces this dilemma most acutely. In seeking a solution, however, it seems likely to exacerbate the situation.

For instance, in order to resolve the double payment problem European consortia of librarians and funders are seeking to negotiate what have been dubbed “Read-and-Publish” (RAP) or ([confusingly](#)) “Publish-and-Read” (PAR)<sup>20</sup> agreements. (I suspect PAR will become the norm, so I shall use that term to refer to both types of agreement in this document). The aim is to persuade publishers to bundle OA publishing rights into traditional subscription agreements – thereby giving researchers at

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<sup>17</sup> A group of OA advocates [first drew the world's attention to the potential size of this problem](#) in 2015. As they pointed out at the time, “Everything we have gained by opening content and data will be under threat if we allow the enclosure of scholarly infrastructures.”

<sup>18</sup> See, for instance, the work of initiatives like [SHARE](#), [COAR](#), [SCOSS](#), [COS](#) and [Coko](#).

<sup>19</sup> Compared, for instance, to the US, where the main focus has always been on green OA.

<sup>20</sup> What is the difference between Read-and-Publish (RAP) and Publish-and-Read (PAR)? Marcel Knöchelmann [puts it](#) this way, “[W]ith a RAP agreement, the costs are based on the subscription fee for reading, whereas with a PAR agreement, the costs are based on a calculated publishing volume. PAR refers to the fact that the publishers' job is to publish and, thus, they should be paid on the basis of the publishing – not the reading – volume.” I suspect there is little meaningful difference between the two as publishers will clearly always seek to ensure that their revenue increases with each contract, whatever the agreement is called. That said, Knöchelmann [added](#) on Twitter, “if the whole system converts to a state where the exchange value is based on input and not output, it provides new growth opportunities.”



subscribing institutions access to the publisher's paywalled content *plus* the ability to publish their papers OA in the publisher's journals (without paying APCs).

This is controversial, not just because agreeing on a price that is acceptable to both sides is extremely difficult, but because such deals introduce new risks. Some OA advocates, for instance, are very concerned that it will mean continued reliance on legacy publishers. For their part, publishers realise that every PAR they sign will reduce the number of articles for which they can offer exclusive access (via paywalls). This will exert downward pressure on their subscription prices and, logically, loss of revenue from their paywalls.<sup>21</sup> The fear is that this lost revenue will not be fully offset by whatever publishing fees are built into the PAR.

Elsevier is proving the most resistant to PARs, arguing that it is unreasonable for one country, region, or university to insist on being able to access research produced by other countries, regions or universities still using the subscription model. As the *Times Higher* [explained](#) when reporting on negotiations between Elsevier and the German consortium [Project DEAL](#), “Elsevier, for its part, maintains that it supports open science, but argues that German researchers cannot have free access to articles in its portfolio published by academics from other countries that still use the subscription system – a key demand of Project Deal.”

In the hope of twisting Elsevier's arms, national consortia have begun [cancelling](#) their licencing agreements, and [walking away](#) from the negotiating table. In Germany, negotiations between Elsevier and Project DEAL appear (at the time of writing) to have reached an impasse, with discussions in abeyance since last July.

However, the pressure on Elsevier will have intensified following [news](#) that Wiley has signed a PAR with Project DEAL.<sup>22</sup> This will give 700 German academic institutions access to all Wiley's content back to 1997 *plus* the right for their researchers to publish OA in all of Wiley's journals.

It is important to note that the total bill the German institutions are expected to have to pay will be at least as much as they have been paying in subscription fees.<sup>23</sup> Since OA was meant to lower costs this is disappointing. For Wiley, presumably, there will be anxiety that an [estimated 30,000](#) German papers will become accessible outside its paywall and that the lost revenue will not be fully recovered from the publishing component of the contract.

Essentially, PARs are re-engineered [Big Deals](#). But before digging further into this it might help to review the history of the so-called Big Deal.

The Big Deal was the product of a number of developments, including the emergence of digital publishing and distribution, market consolidation, and an explosive growth in new journals. These all led to constant journal price inflation. As publishers bought one another and launched new journals they assembled ever larger journal portfolios, leading librarians to jib at the sheer amount of money they were having to hand over to the big publishers.

In response, publishers began grouping journals into large electronic bundles and selling them at a discounted price – the Big Deal. The initial appeal of Big Deals for libraries was that they allowed

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<sup>21</sup> For publishers, clearly, the ideal scenario is to be able to replace all lost subscription revenues with APC revenues. But for so long as some institutions/countries wish to continue with the subscription model this will be hard to manage.

<sup>22</sup> News that Project DEAL had signed its first PAR with Wiley [came](#) on 15<sup>th</sup> January.

<sup>23</sup> Marcel Knöchelmann [estimates](#) that that this will equate to around €2,750 per article, *plus* APCs for Wiley's existing gold OA journals.

universities to provide faculty with access to more journals than if they continued subscribing title by title. The “offer” was that a Big Deal provides more (content) for less (money).

But as these bundles got bigger and bigger<sup>24</sup> so Big Deals increased in price too, to the point where they threatened to overwhelm libraries’ journal budgets.

This saw the Big Deal become increasingly controversial. It did not help that universities discovered they were caught in what one librarian [characterised](#) as a “Prisoner’s Dilemma.” Effectively, once a library signs a Big Deal its journal budget becomes a hostage to the publisher – because going back to subscribing to individual titles means paying more (money) for less (content), and faculty tend to complain bitterly when journals are cancelled.

Interestingly, the way the Big Deal was initially funded was quickly abandoned. Had it not, could the history of open access have been different?

Let me explain.

### National licences and top-slicing

The first Big Deal was signed in 1996 as a three-year licensing agreement between [Academic Press](#) (later acquired by Elsevier) and the then Higher Education Funding Council for England ([HEFCE](#)). This allowed anyone working in a higher education institution in the UK to have free-at-the-point-of-use access to AP’s entire journal portfolio. Importantly, since the bill was paid by the government (courtesy of top-slicing) libraries did not have to bear the financial burden.<sup>25</sup>

However, although AP’s concept was quickly emulated by other publishers (and is now the norm in the Global North, and elsewhere), most subsequent Big Deals have been agreements not between the publisher and a government funding agency but directly between the publisher and the library (although often negotiated on their behalf by an intermediary as part of a consortium arrangement). More importantly, the costs are not top-sliced, but paid from hard-pressed library budgets.<sup>26</sup>

Moving from a top-sliced arrangement to one in which libraries have to bear the cost might seem a retrograde step for UK universities to have taken, but top-slicing quickly came to be viewed as a threat to their financial autonomy, and so presumably academic freedom.<sup>27</sup>

When, in 2012, I suggested to one of the architects of the AP contract ([Jan Velterop](#)) that the Big Deal had fallen out of favour, he [replied](#): “I’m not so sure that the Big Deal fell into disfavour. At least it didn’t for a long time. What did fall into disfavour was the idea of top-slicing, which was very unfortunate. It transpired that many librarians prefer to pay more for less than have their budgets top-sliced.”

Velterop also made a distinction between the way Big Deals work and how he felt an effective national licensing agreement should work in the digital world. The latter, he told me, would be more

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<sup>24</sup> Elsevier’s Big Deal (cynically called the “Freedom Collection”) appears currently to consist of [2,380 journals](#).

<sup>25</sup> Describing the difference to me Jan Velterop [said](#) that a top-sliced approach sees the bill “paid directly by funding agencies, rather than indirectly, via the overhead portion of grants that go to the universities where the research is carried out. And as a result, the Big Deal developed into a kind of journal subscription bundle instead of the comprehensive scientific literature database it could have become.”

<sup>26</sup> Nationally agreed agreements paid and managed by central government are not in any case generally possible in the less centralised US university system.

<sup>27</sup> Given the way in which in European funders are now forcing the most oppressive OA mandates on universities is ironic.

like buying access to a database. As he [put it](#), “A subscription bundle feels like an à la carte menu, with quantum discounts, whereas a database approach is more like an ‘all you can eat’ buffet, at a set price per diner, whether you eat much or a little.”

The implication was that a national licensing agreement would be cheaper than a Big Deal, not least presumably because governments would be able to negotiate a better price than a consortium of libraries. Either way, Velterop’s database approach makes far more sense in a digital world.<sup>28</sup>

Velterop explained that the model he was hoping to develop at AP “was to have country-wide, or in the US state-wide, arrangements, where one contract would ensure access for all of higher education in that country or state.”

Interestingly, in the wake of the 2012 [Finch Report](#) (and subsequent [RCUK OA mandate](#)), the UK again embraced a model in which the government paid, although not to buy access to paywalled content but publishing rights for researchers to make their papers open access (via APCs). This money is provided in the form of [block funding](#) and was envisaged as a short-term expedient until publishers transitioned their journals to OA, or libraries began to cancel subscriptions and use the money saved to pay for APCs instead (neither of which has happened). Since UKRI<sup>29</sup> has subsequently signed up to Plan S the UK government might find it becomes as difficult to extricate itself from paying APCs as libraries have found it to extricate themselves from the Big Deal?<sup>30 31</sup>

The important point here is that with UK-style pay-to-publish gold OA the *publish* element of scholarly communication has been split away from the *read* element, with libraries continuing to pay the *read* element (by way of subscriptions), while government pays the *publish* element (APCs). In fact, this split is evident wherever pay-to-publish gold OA is used. Either libraries pay both APCs and subscriptions, or funders pay the *publish* element. In short, OA has forced a double payment problem on the research community.

Not only is this expensive, but it is inefficient. Libraries now have to manage the payment of hundreds of individual APCs, which is expensive in both time and money. Moreover with the UK model, when a university’s [block grant runs out](#) researchers can find themselves having to delay publishing their papers until the next government grant arrives.

Speaking to me in 2012, Velterop suggested that in order to avoid paying twice the research community should be looking to agree a new-style Big Deal in which both *read* and *publish* elements are recombined. Consequently, he said, governments should be going to publishers and saying, for instance, “We, the UK, pay you, the publisher, an amount of X pounds, for which we want for our HE-sector a) access to everything you publish; and b) open access for every article published in your journals that originates in our HE institutions.”

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<sup>28</sup> The way in which Big Deals are negotiated is hugely complex and anachronistic, with calculations often based on a university’s historic print subscriptions. Velterop’s model would presumably be much simpler and more transparent.

<sup>29</sup> In 2018, UKRI took over some of the role that HEFCE played.

<sup>30</sup> The Plan S signatories have committed to ensuring funds are available to pay APCs. “When Open Access publication fees are applied, their funding is standardised and capped (across Europe)”.

<sup>31</sup> The oddity here is that the UK signed up to Plan S after commissioning [advice](#) from the Chair of the Universities UK Open Access Coordination Group Adam Tickell. In his advice Tickell writes, “the financial implications of the current arrangement appear to be unsustainable in the medium to long term.” Yet Plan S would seem to be more of the same.



In effect, of course, this is what those seeking PARs are hoping to do, although the expectation is that they will be funded from library budgets rather than by top-slicing, and it is consortia rather than governments who are negotiating the deals.

What quite rightly worries some is that PARs lead to continued dependency on legacy publishers. However, as suggested, they can expect to remain dependent on them in any case, both for historic paywalled content, and discovery tools, plus for the new services that will be built around publishers' platforms.

It also seems likely that most if not all of the new products, services, and enhanced search features provided by publishers will be paid for by means of subscriptions. Moreover, using the term subscription in the broad sense of paying for time-limited services (3 years in the case of Wiley/DEAL), PARs will see subscriptions levied for both *read* and for *publish*. In other words, pay-to-publish gold OA is itself set to become a subscription service – *plus ça change, plus c'est la même chose*.<sup>32</sup>

Thus, subscriptions will continue to dominate in in this model, and we know that the subscription model leads to constant price rises that the research community is unable to control or contain. Again, this would seem likely to have negative consequences for both affordability and epistemic injustice.

## Plan S

Why do I say negative consequences for epistemic justice? First, because, as noted, universities in the South have far less buying power. If pay-to-publish is baked into the new OA environment, researchers in the South will be priced out of the “common intellectual conversation and quest for knowledge” that BOAI promised.

And this is a serious concern with Plan S: [cOAlition S](#) (the group of funders behind Plan S) is [asking](#) funders around the world to commit to requiring that all scientific publications arising from research they fund are published in compliant open access journals or on compliant open access platforms from 2020.

At the same time, it plans to ban hybrid journals (i.e. hybrid is non-compliant with Plan S). If Plan S gets sufficient support from other funders this ban, the very tight deadline of 2020 that has been set, and the fact that (as a result of the extremely onerous requirements that have been set for OA platforms) green OA would be effectively disqualified would mean that legacy publishers were compelled to convert all their subscription journals to pay-to-publish. Since paying APCs of \$1000s would be beyond the pockets of researchers in the Global South they would be excluded in a different (but more pernicious) way than they are in the subscription system. While they would be able to read others' research, they would be unable to publish their own.<sup>33</sup>

To add to the problem, cOAlition S has indicated that PARs will be considered compliant with Plan S only if they are “[transformative](#)”. In other words, publishers would need to commit to phasing out hybrid OA in any PAR agreement. As such, Plan S is not only highly unlikely to lower the costs of scholarly communication, but since it is predicated on changing the entire publishing system – by

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<sup>32</sup> This is important because OA advocates long argued that APCs would finally introduce price sensitivity to scholarly publishing because the buyers of the services (authors) would be able to choose a publication venue based on the cost of the APC. With subscriptions there is a disconnect between the user of the service (the author) and the buyer (the library).

<sup>33</sup> For instance, while public funding agencies in countries like Brazil cover publication fees [they do not pay APCs](#) (and it seems highly unlikely they will do – as explained later).

means of what has been dubbed a “[global flip](#)” to OA <sup>34</sup> – it would bake pay-to-publish into the OA environment.

In other words, Plan S is building on the [OA2020](#) initiative launched by Germany’s [Max Planck Society](#) in 2016. The aim of OA2020 is to force publishers to convert all their subscription journals to open access. Again, in practice, this would mean a future in which near universal pay-to-publish prevailed. This is because legacy publishers dominate the scholarly publishing market and would feel they had no choice but to replace their subscription revenues with APC revenues.<sup>35 36</sup> Unable to afford to publish their papers researchers in the Global South would become collateral damage in a war between Northern research funders and legacy publishers.

It also means that Plan S poses an [existential threat](#) to scholarly societies, and indeed most small publishers, especially those in the [humanities](#). As commentators have [pointed out](#), Plan S would benefit the large commercial publishers at the expense of everyone else, an ironic outcome of an attempt by funders and universities to tame these large companies.

Advocates for both OA2020 and Plan S deny that this would be the outcome and insist that they are agnostic about business models, or how open access is provided.<sup>37</sup> But with less than a year to D-Day largescale uptake of pay-to-publish gold OA by legacy publishers is the only possible outcome of Plan S as currently written. The president of the organisation responsible for Plan S has [stated](#) quite clearly that the goal is to “terminate” the subscription model.<sup>38 39</sup> What could possibly replace that in the next 10 months apart from pay-to-publish gold OA, not least because, as noted, the requirements for green OA as good as disqualify it as a compliant route.<sup>40</sup>

The most likely way in which this flip would be achieved would seem to be a proliferation of “transformative” PARs (assuming Elsevier can be brought to heel!).

Of course, Plan S is not a done deal. To succeed, it will need to persuade a sufficient number of other regions/countries to opt in – as Wellcome Trust’s Robert Kiley has [acknowledged](#).<sup>41</sup> It is for this reason that Plan S architect Robert-Jan Smits has been [travelling the world](#) lobbying governments and funders to sign up.

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<sup>34</sup> As if further confusion were needed, Smiths responded to news of the Wiley/Project DEAL by saying that it is compliant with Plan S, even though Wiley has not agreed to flip any journals to gold OA. (Although it seems that such deals are considered compliant if they are signed before 2020).

<sup>35</sup> OA2020 spokespeople have subsequently denied they were so narrowly focused, but the [originating document](#) leaves one with that impression. See, e.g., “We firmly believe that a large-scale transformation of the underlying business model of scientific journals is possible at no financial risk. Our own data analysis shows that there is enough money already circulating in the global market – money that is currently spent on scientific journals in the subscription system and that could be redirected and re-invested into open access business models to pay for APCs.” They continue to claim that their project is being misrepresented (e.g. [here](#)). But the reality is that, if they succeed, both Plan S and OA2020 will inevitably push the world to pay-to-publish, probably mainly by means of PARs.

<sup>36</sup> The University of Manchester [reports](#) that 50% of the articles produced by its researchers each year are published by just three publishers (Elsevier, Springer Nature and Wiley).

<sup>37</sup> And yet Plan S seek to ban hybrid OA!

<sup>38</sup> As Schiltz puts it, “There is no longer any justification for this state of affairs to prevail and the subscription-based model of scientific publishing, including its so-called ‘hybrid’ variants, should therefore be terminated.”

<sup>39</sup> See also [this interview](#) with Plan S architect Robert-Jan Smits.

<sup>40</sup> I note that supporters of Plan S are [critical](#) of those who discuss it in terms of gold OA along, but since the Plan makes green OA effectively non-compliant I make no excuse for not discussing it much in this document.

<sup>41</sup> “Ultimately, for Plan S to be successful we need the initiative to be supported globally.”

But we need to ask: Is not a global flip the logical end point for open access? Is it not time the publishing system was upgraded for the 21<sup>st</sup> Century? And is not open access preferable to paywalls? The answer to all three questions is doubtless yes, but the issue here is not about ends but means, and the kind of OA world that will be built.

The problem with Europe's calls for a global flip is that it wants to propagate a model in which one problem will simply be exchanged for another (paywalls for APCs). Insofar as it assumes that everyone is able to afford a global flip to pay-to-publish, and insofar as it assumes that the rest of the world is happy to be led by Europe, to a timetable set by Europe, Plan S is outrageously Eurocentric. And insofar as it assumes that engineering a flip is a straightforward and easy thing to do, it is naïve.

Publishers, however, know better. They know that national differences are important, that a global flip would be both difficult and damaging, and that country/regional preferences ought to be respected.

As Elsevier's Vice President, Global Communications [put it](#) on Twitter recently, "[A]sking for a universal flip, when the vast majority of authors like publishing for free, is asking us to arbitrarily stop servicing their needs. It's not about profit, that's just a distraction. It's about serving authors and customers."

Of course, publisher declarations like this are ultimately self-serving. But that does not mean that they are wrong. If PARs become widespread and start to trigger a global flip, for instance, researchers based at institutions unwilling, or unable, to pay APCs will face a stark choice: publish for free in paywalled journals until publishers flip them, start paying APCs now out of their own pockets (assuming they can scrape the money together), or simply stop submitting to international journals.

The issue here then I think is twofold: first, how can a transition work if it requires international agreement and co-operation yet different countries have different needs, preferences, and budgets (and so are unwilling/unable to sign up). Second, is a global flip acceptable if it means that the scholarly communication becomes less equitable?

On the first point, Plan S certainly faces a challenge. In January *Science* [reported](#) that 16 funders in 13 countries had signed on,<sup>42</sup> "That's still far shy of Plan S's ambition."

The danger, *Science* added, is that "If Plan S fails to grow, it could remain a divisive mandate that applies to only a small percentage of the world's scientific papers. (Delta Think, a consulting company in Philadelphia, Pennsylvania, estimates that the first 15 funders to back Plan S accounted for 3.5% of the global research articles in 2017.)"<sup>43 44</sup>

True, subsequently China has [signalled](#) (non-specific) support for Plan S<sup>45</sup>, but it is far from clear what this means in practice. Similarly, most recently the Principal Scientific Advisor to the Indian Government [announced](#) on Twitter that India will be "joining" Plan S. As ScienceBusiness [points out](#), this has yet to be formalised. The news came in [a series of tweets](#), one of which cited cOAlition S's principle that APCs will be capped, and added: "India will negotiate for fees normalised to India."<sup>46</sup> It

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<sup>42</sup> At the time of writing, the [number listed](#) on cOAlition S's site is lower than this.

<sup>43</sup> On 15<sup>th</sup> January the architect of Plan S Robert-Jan Smits claimed that this figure was c.20%, a figure that presumably includes China. But as publishing consultant Michael Clarke has [pointed out](#), China has not adopted Plan S.

<sup>44</sup> Current [estimates](#) are the Plan S funders now account for <8% of global research outputs. Recent news that India plans to "join" the coalition would clearly increase this figure, depending on what join means here.

<sup>45</sup> In January UCL [reported](#) that it had asked Robert-Jan Smits to publish the Chinese statement of support for Open Access, "but no statement in English has yet been released."

<sup>46</sup> Whatever that means. But it seems unlikely that APCs can be capped (See footnote 51 below).

is not clear what this means but Scimago [reports](#) that India published 147,537 papers in 2017. How much it would cost the Indian government to publish all these articles, and how it would be funded is unclear to me at the time of writing this.

Meanwhile, there is no indication that the US is willing to sign up. Speaking to *Science*, the Director of the Department of Energy (DOE) [said](#), “We don’t anticipate making any changes to our [open access] model” [Which is a green OA policy].

More recently, the founders of the preprint server [bioRxiv](#) (based at the US [Cold Spring Harbor Laboratory](#)) proposed what they call [Plan U](#), a call to scientific and medical research funders to mandate the deposit of preprints. It is hard to see how this is compatible with Plan S.

For the moment, therefore, it remains unclear whether Plan S can get sufficient traction to achieve its objectives, with many countries apparently preferring a wait and see approach.

For those in the Global South deciding what to do is particularly difficult, and decision makers are clearly conflicted.

In January, for instance, [ScienceBusiness quoted](#) Ahmed Bawa, CEO of Universities South Africa, saying said that while he supports OA, and the principle of Plan S, it is not clear that many countries in Africa have the resources for a pay-to-publish model of publishing.

The next day, however, [Research quoted](#) the deputy director-general of South Africa’s Department of Science and Technology ([DST](#)) Thomas Auf Der Heyde saying at a conference that he would be very surprised if South Africa does not support Plan S.

The day after that, the African Academy of Sciences ([AAS](#)) [announced](#) that it was supporting Plan S. However, the [press release](#) and [associated letter](#) suggest that AAS was really making a statement about its OA platform [AAS Open Research](#).

The aim of AAS Open Research, we could note, is to try and break free of the domination of the Global North and allow more African research to be published locally – which is laudable. The service is hosted, however, on a proprietary platform owned by a for-profit company based in the UK and appears to be the brainchild of a former CEO of US-based PLOS, who now manages the service.

As further evidence of the complexity of the situation, we could note that AAS Open Research (which does not yet [appear to have attracted many papers](#)) was launched just before the African Institute for Mathematical Sciences ([AIMS](#)) partnered with Elsevier to launch an OA journal called [Scientific African](#) on its proprietary platform.

Some in the South view Plan S as a replacement to the traditional Big Deal. Speaking at a conference in Pretoria, the director-general of South Africa’s Department of Science and Technology (DST) Thomas Auf Der Heyde [explained](#) that DST had been planning to approach the big academic publishers to negotiate Big Deals – with the aim of making access more equitable across the country’s research institutions<sup>47</sup>. However, he added, Plan S has overtaken those discussions.

But the dilemma that developing countries face is real and difficult. Anything that will see more research from the North become freely available is a real attraction for them. But they will know that signing up to Plan S and/or acceding to a global flip will likely come at a price they will later have to conclude was too high. The good news is that they don’t need to sign up to a global flip in order to benefit from it – as I shall discuss later.

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<sup>47</sup> Historically, in South Africa white universities have had better journal access than black ones.

## An equal seat

To turn back to our second point about equity: The Global South has long struggled to gain an equal seat at the table of global science. One of the many problems it faces is that the rules and practices that operate often work against its interests but to the benefit of the North. This is partly because when initiatives like Plan S are proposed, far too little thought is given to the likely implications for the developing world. The truth is that inequity is built into the very structure of the global research process, and its practices and assumptions often amount to what some would call [academic neo-colonialism](#). Plan S would embed this neo-colonialism into the OA environment.

But as noted, developing countries are clearly conflicted over how to respond to Plan S. It is striking, for instance, that in January, [ScienceBusiness reported](#) that Zambia had “formally signed up to” Plan S last December. At the time of writing, however, this information had still not been published on the cOAlition S [web site](#).<sup>48</sup>

Assuming Zambia *has* signed up we might wonder why it would want to do so. Two thoughts occur to me.

First, signing up to Plan S does not necessarily mean doing anything about it. And to the surprise of many, one of the leaders of the Plan S task force (and executive chair of UKRI) David Sweeney posted a [tweet](#) in January saying that Smits had agreed that “each agency will choose how to interpret the implementation plan”. Given the very specific details outlined in the Plan S [implementation guidelines](#) this might appear logically contradictory. Perhaps the real purpose of Plan S was simply to try and frighten publishers into flipping to OA?

Second, a global flip to OA might be superficially attractive to countries unable to afford to subscribe to many international journals but who themselves publish relatively few papers (and so would not face a large publishing bill in a flipped world). [According to Scimago](#), Zambia published 555 papers in 2017.<sup>49</sup> By comparison, the US published 546,605, and the UK published 162,965.

On the other hand, where countries expect to increase their research activity in the future (and they all say they do), Plan S will appear less and less attractive as their research activity goes up.

So, the challenge for countries in the South considering signing up to Plan S lies in trying to estimate the likely financial implications of a global flip. This was [a point](#) made to ScienceBusiness by South Africa’s Ahmed Bawa: “We can’t have a very rapid shift and realise later that scientists and communities can’t afford to publish. We still don’t have a good handle on how much the pay-for-publishing model will cost.”

This is particularly challenging because a global flip would likely be for ever, with no way back. Or at least, it would be extremely difficult for the research community to extricate itself from a pay-to-publish system at a later date – much as libraries have vainly struggled to free themselves from the Big Deal.<sup>50</sup>

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<sup>48</sup> My attempts to obtain [details from cOAlitions S](#) or the National Science and Technology Council of Zambia, met with no response. I was [told](#) by a journalist on Twitter on 14<sup>th</sup> January that further details would be released shortly. I have yet to see these.

<sup>49</sup> Doubtless Zambia publishes more papers than this as I doubt Scimago indexes many local journals. However, I assume that it is international journals that would be at issue in a flipped world.

<sup>50</sup> Bear in mind also that PARs are essentially Big Deals, so universities will presumably remain trapped in a flawed model.



Let's be clear: those countries actively pushing for Plan S and a global flip are wealthy countries based in the North, predominantly in Europe. What they want to do is force on the world a model that they currently favour while evincing scant regard for the implications it would have for the developing world. Indeed, Plan S would not only create a more inequitable publishing system than the current subscription one, but it would perpetuate a model of publishing that some believe has become [unaffordable for everyone](#).

As James Coyne [has pointed out](#): “Efforts to promote open access publishing ignore the many scholars who cannot afford the article processing charges of quality open access journals. Their situation may be about to get worse.”

In 2017, Elsevier's [Gemma Hersh](#) suggested that a fairer way of doing things would be to introduce what she referred to as “[region-specific OA](#)”. She [explained](#): “Europe is a region where a transition to fully gold open access is likely to be most cost-neutral and, perhaps for this reason, where gold OA currently has the highest policy focus. This is in stark contrast to other research-intensive countries such as the US, China and Japan, which on the whole have pursued the subscription/green open access path.”

What Hersh suggested therefore was that Europe should consider moving forward in a more gradual and managed way. Her proposal, she said, would “enable European articles to be available gold open access within Europe and green open access outside of Europe. In this way, Europe could move forward to achieve its goals without waiting for international consensus. And if this approach could be shown to deliver benefits to Europe, then it would create a persuasive evidence base from which to encourage other regions to follow Europe's lead. At the same time, such a regional approach would have the advantage of enabling different parts of the world to move at their own pace and in line with their own needs.”

As can be seen, Hersh's focus was on research-intensive countries, apparently discounting regions like Latin America and Africa – I assume because these are viewed as less important in revenue terms. This reminds us that legacy publishers are ultimately focused on their own interests. While they all now accept OA, they fear that if it is forced on the world in an unmanaged and precipitous way, it could hurt their revenues (particularly in light of cOAlition S threatening to introduce an APC cap).<sup>51</sup> However, self-serving or not, publishers are right to sound the alarm over the damage a hasty system-wide change to pay-to-publish OA would cause. They also understand that a global flip would be far more complex than OA advocates maintain, or that governments appreciate.

Hersh's proposal predates Plan S but was made in response to the OA2020 call for a global flip that Plan S now wants to bring about. The problem Elsevier highlights is that while a flip may seem long-overdue and logical, it is not an easy thing to do. It would also mean taking unnecessary risks, and would be prejudicial to the interests of those in the Global South.

Again, it is worth noting that if OA2020 and Plan S achieve their objectives they will have helped legacy publishers embed themselves further into the new OA publishing environment, with all the negative consequences this would have for the research community.

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<sup>51</sup> It is not clear, however, that such a cap will ever, or could, materialise. It has been reported that attempts in Germany to cap APCs failed – see [here](#), for instance.

## Citizens too

So how should the Global South respond to the growing obsession in Europe with engineering a global flip? Before coming to that I want to mention a [proposal](#) made in 2012 by [David Price](#), Vice-Provost (Research) at University College London (UCL).

Speaking to me in the wake of the Finch Report (when OA advocates and UK politicians were particularly exercised over the need to make publicly-funded research available to the public), Price said that what was needed was a national licensing approach. As he put it, “National licences are the preferred way forward in the immediate future for many [Russell Group Universities](#) ... For an agreed amount, publishers allow access to their content by all sectors in society. UCL sees this as a transition step to full open access. Initial discussions suggest that the cost of national licensing would be cheaper than the gold OA Finch is recommending.”

It was not immediately clear to me how Price’s proposal would transition the UK to open access, and I was conscious that as a Vice-Provost at a research-intensive university he was understandably concerned that the pay-to-publish model recommended by Finch meant that UCL would have to pay more than most other universities, but it struck me as an interesting idea.<sup>52</sup>

In the event, RCUK decided to proceed with the Finch recommendation, but sought to soothe the concerns of research-intensive universities by introducing the block-funding arrangement mentioned earlier. This means that the UK government currently picks up the bill to pay for gold OA rather than individual universities having to do so. As noted, however, this approach did not trigger a transition to OA either. Rather it turned out to be a very expensive strategy that has enabled publishers to avoid flipping their journals to OA while enriching themselves further in the process – by means of [hybrid OA](#). This has led to bitter complaints about “[double dipping](#)”.<sup>53</sup>

RCUK’s approach was flawed, and very expensive OA. Moreover, in not picking up on Price’s proposal it overlooked a very interesting concept. Costs aside, a national licensing arrangement in which every citizen in the UK had free-at-the-point-of-use access to publicly-funded research would have been a far better outcome and would in fact have given the UK most of what the OA movement has been asking for the past 17 years: public access to publicly-funded research.

This is all the more striking given that four years later (2016) the Egyptian Government introduced a scheme that looks very similar to the one proposed by Price – in the shape of the Egyptian Knowledge Bank ([KBE](#)). KBE provides free-at-the-point-of-use access to research from a range of major international publishers to all 92 million Egyptian citizens. That is, “all sectors of society” (as Price put it) are able to access scholarly works at no cost to themselves from a central online portal. KBE has proved extremely popular: [In its first 10 months](#) it saw 69 million searches and 32 million downloads.

True, unlike a PAR, there is no *publish* component to the Egyptian deal, just a *read* component. It is a Big Deal that provides access to research to all Egyptian citizens. In a flipped world, therefore, in addition to what it pays for KBE, Egypt would have to pay for its research to be published. I will come back to that.

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<sup>52</sup> UCL has proved one of the more [vocal critics](#) of Plan S. Its feedback to Plan S reads, amongst other things, “This response from UCL (University College London) fully endorses Open Access as the direction of travel for scholarly publishing. However, Plan S in its current form is not the way forward. UCL researchers call for a wholesale re-think of the strategy and timelines for moving to 100% Open Access.”

<sup>53</sup> Hybrid journals earn both subscriptions and APCs from the same journal.

It is worth noting that Egypt achieved the [second highest growth in research output](#) in 2018 (15.9%). Whether this has any connection to KBE we cannot say of course.

But it turns out that Egypt was not the first country to introduce a Price-style national licensing arrangement. The pioneer of this model was Uruguay. Specifically, in 2009 the National Agency for Research and Innovation in Uruguay ([ANII](#)) [launched Portal Timbó](#). Like KBE, Timbó provides access to content from a range of scholarly publishers through a single online portal. And like KBE, access to the content is free-at-the-point-of-use for any Uruguayan citizen.

In other words, Timbó and KBE provide open access by other means. This is not socialism in one country, but access in one country! All a user needs do to access Timbó, for instance, is to provide proof of Uruguayan citizenship and to be in the country.

For the moment, however, national licensing agreements like Timbó and KBE appear to be rare, certainly there are no others in Latin America. Explains [Dominique Babini](#), Open Access Advisor at CLACSO,<sup>54</sup> “The main research countries in the region (Brazil, México and Argentina) have big national deals for paywalled content, but I am not aware of any other country in our region that provides open access to paywalled content for citizens, professionals, and economic and community organisations who are outside the national research systems.”

Virginia Rodés, an Associate Professor at the University of the Republic ([UdelaR](#)) in Montevideo<sup>55</sup>, is a big fan of Timbó. “Uruguay’s educational institutions have no culture of paying for access by means of Big Deals in the manner of European and North American universities, so a national solution like Timbó provides a very good solution,” she says.

True, Uruguay is not a typical developing country. While the United Nations [classifies](#) it as such, and while it is in the Global South, Uruguay is defined as a high income country.<sup>56</sup>

Nevertheless, says Rodés, “We are very proud of the way our country has solved this access problem. It is an important achievement. It is certainly an interesting solution, and one that could be extended to other countries, and not just those in the Global South.”

As Europe accelerates its attempts to trigger a global flip, could the Timbó model be part of a solution for the Global South?

## What’s the Global South to do?

It may be that Plan S will fail to get the backing of a sufficient number of countries to succeed. A more likely scenario is that there will be a fudge, and perhaps Sweeney’s tweet points to cOAlition S’s “get out of jail free” card”. We may see, for instance, that cOAlition S members have to significantly water down the stringent OA platform requirements in order to resuscitate green OA (as happened post-Finch [following the intervention](#) of a UK House of Commons Select Committee).

Certainly, feedback to Plan S has been very critical, with some researchers [complaining bitterly](#) about the consequences for them of Plan S, and some publishers indicating that they would [refuse to comply](#) with its requirements.

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<sup>54</sup> CLACSO is a non-governmental international organization with UNESCO associate status that brings together 654 research centres and graduate schools in the field of the social sciences and humanities in 51 Latin American countries.

<sup>55</sup> Rodés also has co-responsibility for the Interdisciplinary Centre on Open and Accessible Educational Resources at UdelaR.

<sup>56</sup> In a UN table listing countries by GDP Uruguay is listed in [77<sup>th</sup> position](#).

In addition, UNESCO (which has a strong commitment to the Global South) has [indicated](#) that it will not endorse Plan S as it stands. In fact, most (if not all) who have sent in feedback to Plan S have called for significant changes.

Nevertheless, we should not doubt that even if Plan S changes tack and/or is watered down, the pressure for a global flip will only grow.<sup>57</sup> And the mechanism that will likely be used to pursue this goal will be the “transformative” PAR. This is all the more likely given that some publishers are now recommending it. In its [feedback](#) to Plan S, for instance, Springer Nature suggested that cOAlition S funders “make transformative deals, such as Publish and Read deals, a key part of Plan S given their proven ability to drive growth in OA”.

Regardless of what happens with Plan S, therefore, we can expect to see more and more PARs being signed, with libraries and funders insisting that publishers commit to flip their journals to OA as part of the deal.

This will be helped by the fact that the concept is spreading beyond Europe. At the end of last year, for instance, librarians at the University of California announced that they are now [in confrontation with Elsevier](#) over what they describe as a RAP deal, demonstrating the degree to which the library community is becoming increasingly radicalised in the US too.<sup>58</sup>

It is hard not to see why. Seventeen years into the open access movement librarians and OA advocates are deeply frustrated that their vision of an OA future keeps moving away from them, or at least that the world is moving towards it at far too slow a pace for their liking. They also no longer believe that green OA is a viable way forward. Not only is it extremely difficult to get researchers to self-archive, but green OA leaves the subscription system intact.

As Jeff MacKie-Mason, UC Berkeley’s University Librarian, [pointed out](#) to me last year, without a flip OA cannot make meaningful headway. “[W]e will not make significant medium-term progress on open access unless we find a way to move to a system in which the incumbent publishers switch to full open access.”

It is no surprise, however, that researchers in the Global South view the calls for a pay-to-publish system with deep mistrust. Some have even suggested that the model be boycotted. Last year, for instance, a group of leading research countries in Latin America [came together](#) to voice opposition to an APC-driven approach to OA, [warning](#): “an OA expansion policy, through the payment of APC fees, is impossible to undertake from a financial point of view for the participant countries.”

For that reason, the signatories said, institutions should “not create grants to pay a publication in OA-APC magazines”.

Since some of these countries currently have Big Deals one might wonder why they do not simply swap their Big Deals for PARs. The problem, however, is that it is far from certain that this could be done in a cost-neutral way. After examining the cost structure of the Wiley/DEAL agreement, for instance, Knöchelmann concluded that it could increase Wiley’s revenues, at the expense of German institutions (see [here](#) and [here](#)).

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<sup>57</sup> At the close of the 14<sup>th</sup> Berlin Open Access Conference last December the organisers reported that 170 participants from 37 countries on five continents had [expressed commitment](#) to a full transition to open access, with a “immediate open access, copyright retention by authors and transformative agreements between consortia and scientific publishers.”

<sup>58</sup> Currently, new deadlines are being set and then [extended](#).

Costs aside, Plan S, a global flip and PARs raise more fundamental issues around epistemic justice, and new concerns about academic neo-colonialism.

One concern is that PARs could lay waste to local journals.<sup>59</sup> After all, if a researcher's institution signed an agreement with a Northern-based legacy publisher that allowed researchers to publish in the thousands of journals owned by that publisher (at no personal cost to them) then, given the current career benefits (and [often financial inducements](#)) that this brings them, why would they want ever again to publish in a local journal?

True, authors do not generally pay a fee when publishing in a subscription journal,<sup>60</sup> but the OA movement has managed to present open access not just as a no-brainer, but as [a moral issue](#). If institutions in the South started signing PARs and telling researchers that they can make their work OA in international journals without paying an APC there would be surely be a rapid rise in the numbers submitting to these journals.

This could prove the straw that breaks the camel's back for many local journals. Speaking at a recent conference, Susan Veldsman, an open-access advocate for the Academy of Sciences of South Africa and former academic librarian, [explained](#) that while South Africa currently publishes 320 journals, the publishing environment is extremely frail. "It's a challenge", she said.

In other words, if countries in the South decided to sign PARs they could see their local journals wither away, or be weakened to the point where they had no option but to sell themselves to a legacy publisher, who would fold the journal into its large for-profit publishing machine, and local research would be further absorbed into a scholarly communication system controlled and monetised by wealthy international publishers.

What is indisputable is that the Global South needs and wants access to paywalled research, and not just researchers but students too. When students in North-Eastern Nigeria were asked what would improve their studies, for instance, they [expressed concern](#) that they had become "overly reliant on Google, Yahoo, and open access e-Journals". What they need, they said, is an "electronic library, where they can easily access scientific journals from databases such as Elsevier, Springer, Taylor and Francis, Wiley, SAGE and Emerald."

This, they added, would give them "a means to explore other related scientific papers, in order to elevate their academic learning and research."

OA advocates dismiss such views as [wrongheaded](#). But perhaps this attitude is symptomatic of the arrogance underlying Plan S, which essentially says, "We in Europe know better, so do what we say". The truth is that if countries in the South want to become equal partners in the "common intellectual conversation and quest for knowledge", they need to have access to paywalled content. They should, however, not be forced to pay to publish their own research.

What is often missed out of conversations about the traditional subscription system is that LMICs are able to get free or discounted access to paywalled content courtesy of initiatives like [Research4Life](#). In a flipped world, they would get free access to international journals, but be expected to pay \$1000s for every paper they published in them.

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<sup>59</sup> I use the term local journal in this document. Others may use the term national or regional journal.

<sup>60</sup> In fact, some subscription journals have always charged for colour pages, supplementary material etc. Gold OA journals, however, tend to levy a singled charge, in the shape of an APC.



Again, OA advocates wave away such concerns, saying that researchers based in Research4Life-discounted countries are eligible for APC waivers. However, anecdotal evidence suggests that waivers are not as easy to obtain or universally available as OA advocates maintain.

The Research4Life initiative is far from perfect, but we need to ask how in a flipped world an APC-waiver scheme would work at all. A country asking for free or discounted access to paywalled content where the publishing costs are covered by subscription revenue (and where for a publisher to provide additional digital copies for free is a near costless exercise)<sup>61</sup> is not the same as those countries asking for free publishing services. If a Research4Life [Group A](#) LMIC currently able to get free access to subscription content went to a publisher and said, “We want you to allow our researchers to publish all their papers for free in your journals” it would be very different to asking for free access to journals whose publication costs are paid for from subscription revenue.<sup>62</sup>

## Local solutions

All this seems to suggest that countries in the Global South would be better to develop an independent strategy than sign Plan S or PARs. As we have seen, where traditionally the subscription system funded both the *publish* and the *read* elements of scholarly communication, in the OA environment these two elements have been pulled apart. PARs are an attempt to bolt them back together again, but perhaps the South would be better to embrace that separation, for both affordability and epistemic justice reasons. Rather than signing PARs, for instance, they might be better to focus on read-only deals like KBE and Timbó for citizen-wide access to international research, and look to local solutions for the *publish* element.

Such a strategy could see both elements of scholarly publishing become less expensive. For instance, if more and more of the research produced in the Global North becomes open access (be it via PARs, a global flip, whatever), the Global South could hope that subscription prices would fall in response, lowering the cost of the licensing deals they have no choice but to sign (if they want to be part of the “common intellectual conversation and quest for knowledge”). In other words, the *read* element would become cheaper. (Pending any global flip, eligible Research4Life countries can of course continue to benefit from free or discounted access)

What about the *publish* element? Fortunately, in many countries in the South there is still a strong tradition of scholarly journals being funded and managed by universities (or sometimes [learned societies](#)), rather than outsourced to for-profit companies. As a result, where a journal is subscription-based the cost of subscribing is much lower.

For instance, where Elsevier’s [Energy](#) journal (chosen at random) has a subscription of \$5,858 the print subscription of [Africa Insight](#) (chosen at random) is just R200 (\$15), and the overseas airmail rate \$120. Open access is preferable to charging a subscription, of course, but we have to ask why Europe thinks it is alright to tell local journals to stop levying subscriptions and move to a pay-to-publish model, particularly if doing so might threaten their very survival.

In any case, there are a very large number of open access journals in the South, and they tend to be APC-free [diamond OA](#) journals. In fact, the very notion of pay-to-publish is viewed with distrust in the South (particularly in light of the rise and rise of predatory publishing). When I raised the issue

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<sup>61</sup> Once an article has been published in digital form, the argument goes, the publisher can provide free copies without incurring any additional cost. That is the logic of offering discounted access in Research4Life programmes, and indeed the Big Deal model of discounted access is based on the same logic.

<sup>62</sup> Research4Life is subsidised not just by publishers but [others too](#), including a number of UN agencies. We should also note that the commitment to provide assistance currently runs until 2025.

with Omar Barreneche in the interview below, he replied, “As far as I know, APCs are out of the question for Uruguayan journals.” I hear the same message from others based in the Global South.

The solution I want to suggest, therefore, would seem to play to the South’s strengths. That is, to focus on supporting existing APC-free journals and creating new ones, rather than encourage researchers to pay (or pay for them) \$1000s to for-profit concerns based in the North every time they want to publish a piece of research. New OA journals can be created cost-effectively by leveraging the many institutional repositories that have been set up to support green OA – i.e. repositories can double up as publishing platforms.

Alternatively, there are open-source publishing solutions like Open Journal Systems ([OJS](#)) available. As it happens, OJS is already widely used in the Global South – as the map at the start of this document (and available [here](#)) demonstrates. In 2016, OJS [reported](#) that Latin America and the Caribbean accounted for 3,295 OJS-hosted journals, making it the largest region of use. Brazil alone had 1,934 journals. The second largest region of use is East Asia and the Pacific. Overall, in 2016 60% of all OJS journals were located in the Global South.

In addition, African Journals Online ([AJOL](#)) [uses](#) OJS, and currently hosts 523 journals from the African continent. (Over half the AJOL-hosted journals [267] are subscription journals).

Local journals offer the additional benefit of allowing researchers to publish in their native language, and they are better able to publish research that addresses local needs. Indeed, it seems that researchers may judge local journals to be more important than international journals – at least that was what [Croatian physicians](#) indicated when they were asked to assess the value of medical journals in 2009.<sup>63</sup> One could also imagine that in a flipped world diamond OA journals based in the South could attract APC refugees from the North who find themselves without the wherewithal to pay to publish, or simply prefer not to.<sup>64</sup>

These journals can also be aggregated into regional networks to give them greater global visibility. Importantly, rather than rely on for-profit platforms owned and controlled by companies based in the North, these platforms and networks could be community-owned, non-profit, and under local control.

As for-profit publishers embed themselves and their products ever further into the research process the more autonomy the South can acquire the better. As a recent [article](#) points out, “the vertical integration of publishing services and infrastructure is disproportionately excluding the Global South from the process of creating knowledge.”

In fact, the strategy I am suggesting appears to be one that countries in Latin America are already pursuing and have been for some years. As we saw, they are already publishing several thousand OJS-hosted journals and they have a collection of networked local resources courtesy of initiatives like

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<sup>63</sup> Croatia is not in the Global South and the World Bank classifies it as a high-income country, but my point here concerns the value attributed to local journals.

<sup>64</sup> Many of those who have submitted feedback to Plan S point out that a fair proportion of researchers in the North do not have access to funds to pay APCs either, including those in disciplines where grant funding is low, and independent researchers.

[SciELO](#),<sup>65</sup> [RedALyC](#), [La Referencia](#), [CLACSO](#) and [FLACSO](#).<sup>66</sup> This also seems to be the strategy that AJOL is pursuing.<sup>67</sup>

Interestingly, it may be that more is not being done in this regard not due to lack of funding, or of capacity, but insufficient knowledge about capacity that already exists, or a lack of focus – as [this article](#) about the current situation in Ethiopia might seem to suggest.<sup>68</sup>

Another way of improving the visibility of local journals, of course, is to try and get them indexed in services like [Scopus](#) and the [Web of Science](#). However, these are subscription-based services<sup>69</sup> owned and operated by companies based in the Global North. This foregrounds again the potential threat to epistemic justice if legacy publishers are able to [embed](#) themselves further and further into the research infrastructure.

For those who worry that spurning international journals will harm the careers of researchers in the South we could note that one positive aspect of Plan S is that it is calling for funders and universities to sign up to and support the San Francisco Declaration on Research Assessment ([DORA](#)). DORA [argues](#) that research “needs to be assessed on its own merits rather than on the basis of the venue in which the research is published.”

Here cOAlition S is only echoing a concern many share, of course, both in the North and the South. As restlessness has grown over the deeply flawed way in which researchers and their works are currently assessed, and the dominance of the pernicious journal hierarchy and impact factor, calls for change have gained considerable traction. Significantly, the “owner” of the [impact factor](#) ([Clarivate Analytics](#)) recently published a [report](#) that “draws attention to the information that is lost when data about researchers and their institutions are squeezed into simplified metrics or a league table.”

To address this a new Latin American initiative called [AmeliCA](#)<sup>70</sup> recently [put together a multidisciplinary working group of experts](#) from different countries with the aim of generating more relevant and fair metrics for researchers, for journals, and for science.<sup>71</sup>

In short, what I am suggesting is that the South adopt a two-pronged approach: build up local OA journals and create new ones in order cater for local publishing needs and negotiate citizen-wide national licensing deals like KBE and Timbó to provide access to international research.

As noted, if the North continues to make more of its research freely available (whether by means of pay-to-publish, PARs, Plan S, whatever) the cost of licensing paywalled content should start to fall

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<sup>65</sup> [SciELO](#) is the most widely known of these services in the North, and describes itself as a bibliographic database, digital library, and cooperative electronic publishing model of open access journals.

<sup>66</sup> These services were originally created as bibliographic indexes, but over time they have increasingly been able to offer open access full text.

<sup>67</sup> As the AJOL Wikipedia page puts it, “Information sources from the developed world are currently made available for free to Africa (such as HINARI, AGORA, OARE, JSTOR African Access Initiative, and Aluka), there needs to be a corresponding focus on the online availability of information from Africa if increased local capacity in research and dissemination is to be attained.”

<sup>68</sup> The article notes that there are 45 local journals in Ethiopia, most of which are published by universities, but also by national professional associations, private higher education institutions, government research institutes and religious institutions.

<sup>69</sup> Scopus does offer some free services (with [Scopus Preview](#)), but these are limited and clearly a paywall could come down on everything at any time.

<sup>70</sup> AmeliCA, or Open Knowledge for Latin America and the Global South, was launched last year by [a group of Latin American institutions](#).

<sup>71</sup> See also [this](#).

(which is what worries publishers). The danger, of course, is that publishers will seek to make up any lost paywall revenue by charging to use their platforms and embedding new services and products into these platforms. This is all the more reason why the South should focus on building out its own infrastructure.

What is interesting, and seemingly unique, about the KBE/Timbó model is the society-wide access to research that it offers. But we have to ask: what value for money does Timbó provide when compared to a traditional Big Deal?

## Stats and stories

We know from a 2014 [news story](#) that Uruguay was at that time paying \$1,850,000 a year in licensing fees for Timbó. In the interview below Barreneche reports that last year's budget was \$2,314,325 (suggesting an increase of 24% in four years). This says, Barreneche, is equivalent to around \$4 per download.

We also know from a recent [ANII report](#) (see page 66) that Timbó cost-per-download has fallen by 60% over past nine years, from \$10.

But does this compare favourably with a Big Deal? In 2004 the then CEO of Elsevier [told](#) British MPs that the average download cost for an Elsevier Big Deal was falling by between 50% to 80% each year, and he added: "To give you an actual number on that, five years ago the cost per article download was over eight pounds [\$10.28 today]. In 2003 the cost per article download averaged £1.69 [\$2.17]. We think this it will go down below a pound [\$1.29]."

When I cited these figures to Barreneche he responded, "Your figures are 15 years old. If you consider inflation, the gap is not so huge."

That is true, and the Timbó figures are also presumably an average for all the publishers whose content is available in Timbó, not just Elsevier. For more recent figures on Elsevier, we can turn to Randy Schekman, an American cell biologist at the University of California, Berkeley (and former editor-in-chief of [Proceedings of the National Academy of Sciences](#)). [Speaking](#) to KQED radio in January, Schekman said that the University of California currently pays Elsevier \$1.06 (£0.95) per download (compared to 4 cents to access PNAS articles).

I assume that download costs depend both on the number of users and the number of downloads.<sup>72</sup> The ANII report indicates, for instance, that the number of Timbó downloads fell in 2017, which saw the download cost rise from a low of \$3.77 to \$4.46 (up 18%). But while these figures give us some indication of how the deal works, exactly how it is structured is not clear. On the surface, it would seem it does not offer as good value for money as a traditional Big Deal.

There might be a danger in reading too much into these figures. However, viewing the situation through the lens of a citizen-wide deal once again draws our attention to the fact that the fundamental issue confronting the research community *vis-à-vis* scholarly publishing is not access, but cost.

What about content and usability? Without access to Timbó I was not able to assess the latter. There does seem to be a global search feature on the site, which presumably searches across all the

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<sup>72</sup> ANII reports that Timbó has had 2.7 million downloads in the past 10 years. This is much lower than KBE (which saw 32 million downloads in the first 10 months), but Egypt's population is 97.5 million (compared to 3.5m in Uruguay).

databases simultaneously, On but I don't know. Even if does, presumably users then have to enter each publisher's site separately.

With regard to content, the Timbó [home page](#) indicates that three of the top five publishers (Elsevier, Springer and Sage) are included, plus Emerald, IOP and EBSCO. Coverage, says Rodés, is currently a little uneven. "For example, social sciences and humanities are covered less well than the natural sciences and technology."

There is a separate menu for OA content in Timbó, but this is far from comprehensive, listing only a few sources (including PLOS, eLIFE and PeerJ). It does, however, link to [DOAJ](#) and [DOAB](#). Oddly, little local or regional content is included, with links only to the institutional repository of Uruguay's University of the Republic ([UdelaR](#))<sup>73</sup> and [La Referencia](#), the Latin American federated regional network of repositories and regional harvester.

"Timbó is clearly focused on the paywalled content it subscribes to, but the sections covering OA resources need more curation and a user-friendly interface to provide open access to the very rich Spanish and Portuguese scientific content that is available," suggests Babini.

The kind of resources Babini has in mind are the OA collections of [SciELO](#) (which offer access to 1,285 regional journals, including 20 from Uruguay itself) of [Redalyc](#) (which provides open access to 1,291 regional journals including 9 from Uruguay) and of [Latindex](#) (which offers access to 112 quality journals from Uruguay). In addition, says Babini, Timbó would benefit from having links to [Portal de Portales Latindex](#) which provides a centralised search engine for the scientific and academic journals of Iberoamerican countries, plus [CLACSO](#) and other subject repositories that contain collections of content, both Uruguay and the wider region.

In fact, ANII has a separate list of OA resources [here](#), which includes links to regional services like SciELO and Redalyc. Perhaps this could usefully be integrated in to Timbó?

The point is perhaps that Timbó is still a work in progress with more content and better integration being added over time. "We are embarked on a project, funded partially by the World Bank, to build a network encompassing all the existing repositories and fostering the development of additional ones, says Barreneche below, adding: "We are joining the regional initiative La Referencia which will provide us with aggregator software and the know-how to build a network, plus access to local repositories in Latin America and Europe."

In addition, he said, there are plans to add textbooks, although there might be a fee to access these.

The citizen-wide nature of Timbó is of course also interesting with regard to users. For instance, the ANII report indicates that there have been 45,988 Timbó since 2009, of which 50% were students, 24% researchers and professionals and 9% teachers.

What is striking about the student figures, says Babini, is their similarity to figures reported by Juan Pablo Alperin in a 2016 [study](#)<sup>74</sup> he did looking at the usage of open access content in SciELO and Redalyc. Here too the student rate was 50%. Apart from anything else, this reminds us that there is pent up demand for paywalled content from users who do not have access via traditional Big Deals.

This is all the more interesting if we consider that below Barreneche says that Timbó was not really intended to provide access to all the citizens of Uruguay, but to ensure that researchers had access to

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<sup>73</sup> Oddly, it seems you need to be registered to access the UdelaR repository.

<sup>74</sup> *Research is also for non-scholars: Lessons from Latin America*, [Juan Pablo Alperin, 2016](#) (Page 6)



scholarly content when they are away from the lab. Perhaps that is why there are no separate figures listed in the ANII report on citizen access.

Right now, says Babini, the limited data we have invite as many questions as they answer. For instance, she says, any Timbó user classified as, say a teacher, “could be a researcher doing searches in his/her personal capacity, or in his/her capacity as a university researcher, or perhaps for some other professional purpose.”

She adds, “One would really like to see more disaggregated data, with some additional information on the non-academic users.”

Unfortunately, I was not able to obtain more detailed information from Barreneche. Due to his busy schedule, he was not able to devote as much time to the interview as I had planned and hoped.

Another possible benefit of a citizen-wide approach, says Babini, is that it could help create a more inclusive approach to science in the country, and in the development of open science. “By opening up paywalled content to a diversity of views Timbó could slowly provide the context for more open access, open science and citizen science initiatives to develop.”

For his part, Barreneche does not see Timbó as a model for others to emulate. “We do not want to impose our solution on anybody else,” he says. “It is simply the result of our efforts to foster science and a better standard of living to all of our citizens.”

What this misses, perhaps, is that in order to negotiate more cost-effective licensing deals information sharing is very valuable. What has been learned in Europe is that this can put negotiators in a stronger position when talking to publishers.

Sharing more information on users would also be useful, suggests Babini. “Timbó really needs to tell stories and provide additional data on the non-academic users,” she says. “By doing so it could attract a national and international audience to what it is doing.”

Babini thinks that this is especially important in Latin America right now as the region faces an increasingly challenging economic environment and so there is need to look at alternative approaches. “After 15 years of growth, [investment in science in our region is decreasing](#) (except in Uruguay, Perú and Paraguay) as the current structural adjustment policies impact on publicly-funded science and science communication. This is also impacting on the payment of big deals.”

In short, by sharing information ANII could help other countries in the Global South. After all, whatever happens to open access, they are going to need to continue signing licensing deals of one sort or another long into the future, and citizen-wide deals would seem preferable to traditional Big Deals.

## Regressive and heretical?

At this point I want to make something clear: I am all too aware that it is not my place to suggest strategies for the research community, least of all the research community in the developing world. I am not even a member of the research community, and never have been. My aim here is not really to tell anyone what to do but to explore the issues I see arising for the Global South as Europe seeks to

force a system-wide change to global scholarly publishing, apparently regardless of the impact it is likely to have for the rest of the world.<sup>75</sup>

I also realise that some of what I say will be viewed by OA advocates as regressive, and even perhaps heretical. So be it!

Nor can I claim any special insight here, or to be offering something novel. What I am suggesting seems to me to be the direction of travel that at least some countries in the Global South are already taking – notably in Latin America. Here there seems to be a real determination to distance the region from the way the North is seeking to introduce open access, and a desire to plough their own furrow by developing and pursuing an independent strategy.

This desire has acquired new urgency in light of Plan S, and the contrast in approaches is well articulated by a new initiative called [AmeliCA](#). On its website, AmeliCA explains that it is developing “a new configuration of strategies, in response to the international, regional, national and institutional context”, with the aim of creating “a collaborative, sustainable, protected and non-commercial open access solution for Latin America and the Global South.”

AmeliCA has also produced a [video](#) directly contrasting its approach with the approach being taken by cOAlition S. Where Plan S is seeking simply to regulate commercial agreements, AmeliCA explains, its focus is on “building an infrastructure from and for the academy.” [Google Translate]

There is also growing awareness in Latin America of the risks that OA orthodoxy poses for the developing world. Last year, for instance, a group of regional organisations, including Latindex, Redalyc, CLACSO, and [IBICT](#) signed the [Declaración De México](#) to warn that the widespread use of too liberal licences could “end with effects contrary to its initial objectives”.

Their concern is that if OA advocates continue to insist that only CC BY-licensed content can be considered legitimate open access then legacy publishers will be able to appropriate that content and monetise it in ways detrimental to the research community. These companies own proprietary systems, the signatories point out, and yet are able to add open content to them in a completely legal manner. Works licensed CC-BY, they added, can be integrated into these companies’ proprietary platforms, modified, have Digital Objects Identifiers ([DOIs](#)) attached to them, and then sold back to the research community.

“If you want to avoid the commercialisation of the content that publishers [in the South] are making available without cost and that is financed with public resources, then you should use a [CC BY-NC-SA](#) licence, rather than CC BY,” the declaration concludes.

Since many OA publishers in the North will now only publish papers where the authors agree to use a CC BY licence, a further benefit that local journals could provide would be to allow research to be published with less risky licences (e.g. CC BY-NC-SA).

The concern must be that open access will itself become an agent of academic neo-colonialism.

## Irony

Any discussion of scholarly publishing today inevitably circles back to cost. And yet it is hard not to conclude that the OA movement has taken its eye off the ball here, by being far too focussed on

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<sup>75</sup> cOAlition S has said that it will seek to ensure that waivers are available for those who cannot afford pay-to-publish, but one might doubt their sincerity, or (as discussed above) the practicality of their intention.

access. 17 years after BOAI, affordability remains a huge problem and is becoming more of a problem with each new OA policy introduced. Indeed, it seems fair to say that many of the strategies introduced and promoted by OA advocates have worsened the problem rather than alleviate it.<sup>76</sup> Affordability has been sacrificed on the altar of access.

Yet as former general counsel for Elsevier Mark Seeley [pointed out](#) recently, “Openness in and of itself is not a value, it is an element that must be looked at in combination with other values!”

What better example of how OA advocates have taken their eye off the ball than recent news that the University of California (UC) has transferred its usage of the INSPEC database<sup>77</sup> from the Web of Science platform to Elsevier’s Engineering Village. The reason for this, UC [explained](#) in a news release, is that Engineering Village offers better discovery tools, better aggregation with similar content, and de-duplication functionality.

After reading the UC news release, Schonfeld [commented](#), “There is certainly an emphasis on this piece on all the integrations enabled within the Elsevier empire. Fascinating that it comes just as UC works to seem prepared to walk away from Elsevier journal content.”

Even more striking is that 17 years after BOAI, the economic and societal case for OA has yet to be adequately demonstrated. That at least is how I interpret this recent [article](#) in *The Times Higher*.<sup>78</sup>

Perhaps the crux of the problem is that OA advocates were blinded by the much-cited [Stewart Brand](#) maxim “[information wants to be free](#)”. They failed to appreciate that this is a foreshortened version of what Brand actually said, which was: “On the one hand information wants to be expensive, because it’s so valuable. The right information in the right place just changes your life. On the other hand, information wants to be free, because the cost of getting it out is getting lower and lower all the time. So you have these two fighting against each other.”

OA advocates too often seem to hear what they want to hear, and see what they want to see – or perhaps they are just plain naive.<sup>79</sup>

In any case, I assume that Brand was not talking about peer-reviewed literature. Certainly, we have learned that “getting out” scholarly content is only generally done today after a lengthy and expensive process of preparation and management – particularly when that process is done by an [oligopoly](#) of profit-hungry companies. As the *New England Journal of Medicine* [puts it](#), “the cost of producing high-quality content is independent of the dissemination method used.”

What we are also beginning to learn is that the long-term challenge facing scholarly communication has less to do with access, more to do with control – which is ironic in the context of OA advocates

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<sup>76</sup> In this document my concern is exclusively about open access, not open data, or open science, both of which I think deserve a separate discussion

<sup>77</sup> [INSPEC](#) is a major indexing database of scientific and technical literature. [Engineering Village](#) is an aggregated set of 12 engineering and patent databases that was originally designed as an online community (as the name implies). It was [acquired](#) by Elsevier in 1998. It is precisely the ability of Elsevier to buy and bring together information products in this way that has made it so successful and will ensure its continuing domination going forward.

<sup>78</sup> The article says, E.g. “the debate about the merits of open access suffers from a general dearth of hard data on the issue”.

<sup>79</sup> I don’t claim to have had any special insight or foresight here. While to the best of my knowledge I have never describing myself as an OA advocate, I admit that I too was naïve. The important thing however, is to recognise that naivety, not double down on the OA slogans and spend your time on Twitter [attacking those who express doubts or challenge the slogans](#).

insistence that if researchers refuse to assign copyright publishers will no longer be able to control scholarly works. Going forward the issue will not be who owns the copyright in scholarly papers but who controls the platforms on which those papers are hosted, managed and distributed. As things stand, these platforms and processes are going to a great extent to be controlled by legacy publishers, not the research community. And publishers will therefore still be able to charge what they want. This issue of control goes to the heart of the problem of cost of course, and it would seem that the affordability problem is set to continue indefinitely.

Publishers' platforms will be the hubs, or networks, that control both scholarly communication and, increasingly, many of the processes of research. As publishing consultant Joe Esposito has [put it](#), in future the scholarly communication process will be embedded in networks, and these networks will be proprietary.

They will be proprietary, Esposito added, because the not-for-profit sector cannot compete with the narrowly focused aims of someone bent on making money. "The key policy question of this future will not be access but antitrust."

And this means that the research community is not going to free itself from having to pay costly subscriptions. Not only will the new products and services publishers develop around open content be sold on subscription, but open-access publishing will itself be a subscription service.

This is not a healthy development. Is it inevitable? We have to assume it is not, but since the problem is part of a larger political and societal malaise called neoliberalism escaping from this dystopic future will be difficult.

Consider, for instance, that [despite complaints](#) to both the EU Ombudsman and the EC, the signing of two petitions, and [critical articles](#) in high-profile newspapers like *The Guardian*, OA advocates failed to overturn the EU's decision to make Elsevier the sole commercial contractor for its [Open Science Monitor](#). Why? Because Elsevier has the best data and the best skills set to do the job. This suggests that attempting to clip the wings of legacy publishers could end up being as pointless as shutting the stable door after the horse has bolted. It clearly does not help that the EU has become a handmaiden of neoliberalism.

Against this background, the Global South's continuing commitment to the public funding of scholarly communication and scholarly infrastructures puts it in an advantageous position. It will certainly be vital for it to resist the Northern profit-hungry machine that is constantly seeking to extend its grip and control of the global research infrastructure. And preventing this requires constant vigilance on the part of researchers, as Brazilian science editors [discovered in 2014](#) (see [also](#)).

As noted, there is in all this an awful irony: OA advocates' obsession with openness has to a great extent been driven by their animosity towards legacy publishers, and the way in which these companies can squeeze ever larger sums of money from the research community. Yet too often the solutions the open access movement has put forward have ended "with effects contrary to its initial objectives", as the signatories to the Declaración De México put it. CC BY is one example. So too are pay-to-publish gold OA, global flips, Plan S and PARs. Intended to tame legacy publishers, these have repeatedly had the opposite effect, and simply empowered publishers further.

Today [five large companies](#) dominate global scholarly publishing. It is anticipated that this number will likely be reduced to just [two or three](#) in the open networked future – unless something significant changes.

As always, time will tell. In the meantime, please read the interview with Omar Barreneche below for more insight into the research environment in Uruguay. Barreneche is Executive Secretary of the National Agency for Research and Innovation (ANII).

The interview begins ...



**RP:** *Can you say something about yourself, your current position and your background?*

**OB:** I have a long trajectory in the private sector, where I worked for technology intensive companies for many years in my country and abroad. Since March 2012 I am the general manager of the National Agency for Research and Innovation (Spanish acronym ANII) in my country, Uruguay.

**RP:** *It might help if we begin by providing some background on the research environment in Uruguay. How many researchers are there in Uruguay today?*

**OB:** We have around 1,800 people that are peer-recognized officially as active researchers and members of our National Researcher System ([SNI](#)). In addition, there are 8,000 people who self-identify themselves as researchers.

**RP:** *As I understand it, there are two public universities in Uruguay and around five private universities. There are also perhaps some specialist research institutions as well?*

**OB:** There are a few, the larger ones being the National Institute for Agricultural Research ([INIA](#)), the [Pasteur Institute](#), the Biological Research Institute ([IIBCE](#)), etc.

**RP:** *How large is the annual Uruguayan research budget and what percentage of GDP does that represent?*

**OB:** Research and development expenditures in 2016 totalled 210 million USD, which amounted to 0.40% of the GDP.

**RP:** *Who are the main research funders in Uruguay?*

**OB:** The Universities, the Government and the private sector, in that order.

**RP:** *Once a research project is completed the results are written up and published in a scholarly journal. Scimago [indicates](#) that Uruguay published 1,468 papers in 2017, compared with 671 in 2007, suggesting a 118% increase over ten years? Does that sound right? If so, is that growth the result of a rise in the number of researchers and/or funding, or is it rather that researchers have become more productive?*

**OB:** That sounds about right for scientific output in terms of papers. We attribute the growth to the rise of the numbers of researchers, which substantially increased during these years. This growth was



made possible by government funded scholarships for postgraduate studies and research project grants.

**RP:** *I suspect those figures capture only those Uruguayan papers that are published in international journals. How many local journals are published in Uruguay and how many papers do Uruguayan researchers publish in those local journals each year?*

**OB:** I cannot provide at this time a figure for national journals, but the bulk of our production is oriented towards international peer reviewed journals, since these are highly valued by the peer review process that is required to take part in the SNI that I mentioned before.

### No discounted access

**RP:** *In addition to publishing their own papers, of course, Uruguayan researchers need to have access to international research, which historically has meant that their institutions must pay subscriptions to international scholarly journals. These subscriptions tend to be very high and some countries in the Global South struggle to afford them. For this reason, there are now a number of initiatives to provide no or low-cost access to subscription journals for less wealthy countries (under the aegis of Research4Life). As I understand it, the World Bank [classifies](#) Uruguay as a high-income country, so presumably it does not benefit from discounted access to scientific research under these schemes?*

**OB:** You are right, we do not benefit from these discounts and the pricing we get depends entirely on our negotiation skills.

**RP:** *It is partly as a result of the high costs of journal subscriptions that we have seen the rise of the international open access movement. What are your views on open access?*

**OB:** I agree that the high costs are a powerful motivation for the emergence of a new business model. The open access movement has some interesting proposals in this regard, that still have to be demonstrated by long term sustainable implementations.

**RP:** *The dominant model for open access we see emerging in Europe and North America today requires authors (or their funders) to pay to publish their papers (gold OA), rather than having readers pay to read them. These article-processing charges can vary from a few hundred dollars to US\$5,000 or more per paper. I assume that Uruguay's high-income status means that its researchers are not able to benefit from the APC waivers that some OA publishers offer to researchers in less wealthy countries. What are your views on the pay-to-publish business model?*

**OB:** We are in a transition moment and gold OA is yet another business model in the field. It has powerful contenders, though, as I assume you well know.

In my view the final model will have to combine reliable access to adequate information for a fair price, the preservation of the rights of the different parties involved and a sustainable operation.

Technology is the final enabler and will have a decisive role. We could witness also a rainbow of solutions, with different approaches, because the readers are diverse and have different needs and constraints. I guess it will become obvious in the not so long term that one size does not fit all.

**RP:** *I do not believe that Uruguay has a national open access policy. Do you anticipate that one will be introduced? Are there currently plans to do so?*

**OB:** As far as I know, there are no plans or discussions around this question beyond the realm of the research ecosystem. In any case, I would assume that there is still a very long road ahead before a national policy is designed and effectively enforced. But this is a strictly personal viewpoint.

**RP:** *If I understand correctly, DOAJ [lists 18 OA journals](#) ([SciELO lists 20](#)) that are published in Uruguay, none of which I believe charge APCs. Does that seem accurate to you? Do you expect to see this figure grow going forward? Are APCs never levied by OA journals in Uruguay?*

**OB:** I would assume the DOAJ list is probably very close to the real number. I have no evidence to make predictions as to how this area will evolve in the future. As far as I know, APCs are out of the question for Uruguayan journals.

**RP:** *An alternative approach to open access publishing is for researchers to continue publishing in subscription journals but to then self-archive their papers in their institutional repository (green OA). OpenDoar [lists 2 institutional repositories](#) in Uruguay. Does that seem accurate to you? Do you expect to see the number grow?*

**OB:** There are a few more institutional repositories currently in operation that we know of. We are embarked on a project, funded partially by the World Bank, to build a network encompassing all the existing repositories and fostering the development of additional ones.

We are joining the regional initiative La Referencia which will provide us with aggregator software and the know-how to build a network, plus access to local repositories in Latin America and Europe.

**RP:** *What seems to be distinctive about Latin America is that it has created a number of regional digital repositories, including [CLASCO](#), [BVS](#) and [SCIDALC](#). Uruguayan journals are also indexed in regional directories like [Latindex](#) and [Redalyc](#). A lot of the content indexed in these services is open access. Can you outline for me how important these different initiatives are to Uruguay? What value do they provide to local researchers? Is the aim to provide increased visibility for local journals, make local content open access, or something else?*

**OB:** Perhaps [this link](#) can shed a little light. I am very sorry, but I cannot expand more on this at this time.

**RP:** *As indicated, these are regional initiatives and so they are the joint effort of many member countries, some large and others small. They appear to be functioning well but how are the costs and responsibilities etc. for these services shared out/apportioned?*

**OB:** We would have to pay a very low annual fee to participate in La Referencia. I will be more than happy to answer more on this question after we have rolled out our service based on that agreement.

**RP:** *I suspect these indexes and their content are accessed only (or primarily) by people who speak Spanish and Portuguese. Are there plans to try and attract users who speak other languages e.g. English, French and German?*

**OB:** Not that I know of. I would assume that all researchers, at least in my country, have an excellent working proficiency in English and have no qualms about writing their papers in this language.

## Portal Timbó

**RP:** *I want to focus on Portal Timbó now if I may. As noted, the major international journals are generally published in Europe and North America, and access to them requires paying ever more*

*costly subscriptions. As the major subscription publishers have become ever larger and their content has grown exponentially cost has become an issue for even the wealthiest institutions in the world. This has seen library consortia in the Global North (and elsewhere) agreeing to contracts in which they get access to very large portfolios of journals (known as Big Deals). Publishers say these provide highly discounted pricing, but I believe they can still cost millions of dollars a year. In 2009, Uruguay created [Portal Timbó](#) which (as I understand it) provides access to subscription content from a number of major subscription publishers through one interface – a kind of national Big Deal. Can you outline for me the background to this initiative, why it was established, what is distinctive about it, and how it has developed over time?*

**OB:** It was an old dream of our researchers to have proper access to the world's scientific production. Due to the illogical way things evolved over time, such access was partial at best, fragmented or non-existent in some knowledge areas.

Eleven years ago, there was a chance to reach an agreement to concentrate the different budgetary allowances into one big one. This proved to be a momentous decision, because it empowered our institution to a much better standing when negotiating with the journals publishing industry.

***RP:** As I understand it, what is most distinctive about Portal Timbó is that it provides access to the scholarly literature not just to researchers (as with a Big Deal), but to the whole population of Uruguay (presumably by means of IP address). Is that correct? Why was it decided to make it so all-encompassing?*

**OB:** That is correct. We arrived at this solution when the previous mechanism, which provided access to researchers only from the premises of their institutions, proved to be too cumbersome and inefficient. Being an agro-industrial country, many of them were frequently on the road.

***RP:** Can you share with me some usage statistics for Portal Timbó and say whether that usage is static, increasing, or going down year by year, including separate statistics for ordinary citizens? Do many ordinary citizens use the service?*

**OB:** This is a [link](#) to our last annual activities report, which covers all the activities of our agency (in Spanish, of course). On page 66 you will see some usage statistics for Portal Timbó.

***RP:** How is the service promoted to citizens?*

**OB:** It is part of our general promotion activities, which in themselves would require a much longer interview than this one.

***RP:** Looking at the list of sources on the site I am thinking that it is almost exclusively scientific content provided by Portal Timbó? Is that correct? Do you envisage more non-scientific information being added at some point – e.g. content from arts and humanities disciplines, and perhaps monographs/eBooks?*

**OB:** We are currently embarked in a project to add access to college level textbooks, probably for a modest fee, to the current offering of the portal. In a separate, but coordinated, effort we have just switched on a virtual online public library that provides the kind of content that you mention. You probably will not be able to access it from abroad, but the link is [here](#).

## Costs

**RP:** In a [news report](#) published in a Uruguayan paper in 2014 you said that on relaunch of the Portal that year ANII was paying publishers \$1,850,000 a year. What are the annual costs today?

**OB:** The budget for this year is USD 2,314,325.

**RP:** Do these costs in your view represent good value for money, or is it just that that is the price Uruguay has to pay in order to get access to current research?

**OB:** Based on the statistics we keep, we are paying less than 4 USD per downloaded paper.

**RP:** As noted, Portal Timbó is essentially a Big Deal. I recall that when appearing before British MPs in 2004 the then CEO of Elsevier [said](#) that the cost per article download of the Elsevier Big Deal was falling by between 50 and 80 per cent each year. He added, “To give you an actual number on that, five years ago the cost per article download was over eight pounds [\$10.28]. In 2003 the cost per article download averaged £1.69 [\$2.17]. We think this will go down below a pound [\$1.29].” The figure of \$4 you quote seems higher than one might expect. Do you think that if Uruguay combined with other countries in Latin America to negotiate Big Deals with publishers you could bring prices down in the way Elsevier predicted 14 years ago? I do not think that Uruguay is a member of [this consortium](#) for instance? Is it a member of any consortia focused on negotiating with scholarly publishers?

**OB:** Your figures are 15 years old. If you consider inflation, the gap is not so huge.

And the dream of a Latin America union has been and still is a very elusive one since the time of colonial wars.

**RP:** In 2016 Egypt established the [Knowledge Bank](#). This seems to be very similar in concept to Portal Timbó. I understand a large Asian country is also considering something similar. Do you think that Portal Timbó could prove to be a pioneering initiative? What are its particular benefits and advantages in your mind?

**OB:** We do not want to impose our solution on anybody else. It is simply the result of our efforts to foster science and a better standard of living to all of our citizens.

**RP:** Do you see Portal Timbó as a temporary solution until all research papers (we might hope) are open access, or do you expect it to be a permanent arrangement? How do you see it developing going forward?

**OB:** All human endeavours are temporary, or so they say. For the time being, Portal Timbó is the best solution that we could put in place, but we are certainly thinking of ways to improve it. The future will tell!

**RP:** Thank you very much for taking the time to answer my questions.



Richard Poynder 2019

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