

## Bottlenecks in the Open-Access System: Voices from Around the Globe

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# Bottlenecks in the Open-Access System: Voices from Around the Globe

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## Abstract

A level playing field is key for global participation in science and scholarship, particularly with regard to how scientific publications are financed and subsequently accessed. However, there are potential pitfalls of the so-called “Gold” open-access (OA) route, in which author-paid publication charges cover the costs of production and publication. Gold OA plans in which author charges are required may not solve the access problem, but rather may shift the access barrier from reader to writer. Under such plans, everyone may be free to read papers, but it may still be prohibitively expensive to publish them. In a scholarly community that is increasingly global, spread over more and more regions and countries of the world, these publication access barriers may be quite significant.

In the present paper, a global suite of colleagues in academe joins this debate. The group of colleagues, a network of researchers active in scholarly publishing, spans four continents and multiple disciplines in the natural sciences, humanities, and social sciences, as well as diverse political and economic situations. We believe that this global sampling of researchers can provide the nuance and perspective necessary to grasp this complex problem. The group was assembled without an attempt to achieve global coverage through random sampling.

This contribution differs from other approaches to the open-access problem in several fundamental ways. (A) It is scholar-driven, and thus can represent the ‘other side of the coin’ of scholarly communication. (B) It focuses on narrative report, where scholars were free to orient their responses as they saw fit, rather than being confined to binary or scalar choices. Finally, and perhaps most importantly, (C) it distinguishes among institutions and countries and situations, highlighting inequalities of access among wealthy and economically-challenged nations, and also within countries depending on the size and location of particular institutions.

## INTRODUCTION

A level playing field is key for global participation in science and scholarship, particularly concerning the financing of scholarly publications as well as their subsequent accession, valuation, and ranking. Recently it has been noted that there are potential pitfalls in the so-called “Gold”<sup>1</sup> open-access (OA) model, in which author-paid publication

charges cover the costs of production and publication (Peterson, Emmett, and Greenberg, 2013). Even before the rise of digitally available and open-access scholarly publishing regimes, the legitimacy and inherent injustice in the current global system of scholarly communication had been under scrutiny. A. Suresh Canagarajah, in his 2002 book, *A Geopolitics of Academic Writing*, wrote:

Academic writing holds a central place in the process of constructing, disseminating, and legitimizing knowledge: however, for discursive and material

<sup>1</sup> Gold open-access refers to scholarly journals the contents of which are entirely open and free for the public to access. Their access model is “open”, although their business models vary.

reasons, Third World scholars experience exclusion from academic publishing and communication; therefore the knowledge of Third World communities is marginalized or appropriated by the West, while the knowledge of Western communities is legitimated and reproduced; and as part of this process, academic writing/publishing plays a role in the material and ideological hegemony of the West. (p.6)

When scholars are excluded (because of fees, communication problems, disciplinary practices, or other non-tangibles), it becomes critical that

periphery scholars need to negotiate their interests and knowledge with center scholarship. This is important for challenging the limitations of mainstream knowledge, disseminating periphery knowledge effectively, and eventually contributing to the enrichment and democratization of international relations. (Canagarajah, 2002, p. 12).

We would add to this list the democratization of dissemination of excellent and globally rich and diverse scholarship. We aim to challenge the limitations of one important facet of the OA publishing model, the author-pays model. The Gold standard only works for all if there are no author fees or if the author has the “gold” that it requires. However, this condition excludes the majority of the world’s scholars from publishing in OA journals.

Recent studies examining author behavior and attitudes regarding the current, rapidly evolving publishing regime only hint at barriers to OA publishing due to significant economic disparities in the global community of scholars. Solomon and Björk (2012) reported that, although authors from higher-income countries use grant funds to pay author publication charges (APCs), “personal funds are also much more used by authors from lower income countries” (p. 104). In other words, scholars from underfunded or low-income nations often pay APCs from their own pockets, albeit with significantly less in their pockets to start. The fairness of this fact alone has hardly been examined. The author-pays Gold OA model can become a substitute regime for the traditional subscription-based publishing model, merely swapping those who cannot access the system, that is, from readers to authors. Or at minimum the OA system may require that scholars in the global south—or to use Canagarajah’s (2002) term, “scholars on the periphery”—and/or from

underfunded institutions elsewhere pay dearly from their own salaries to be part of global, formal, and well-cited scholarly conversations. Under such plans, everyone may be free to *read* papers, but it may still be prohibitively expensive to publish papers. In a scholarly community that is increasingly global, spread over more and more regions and countries of the world, these publication-access barriers may be significant.

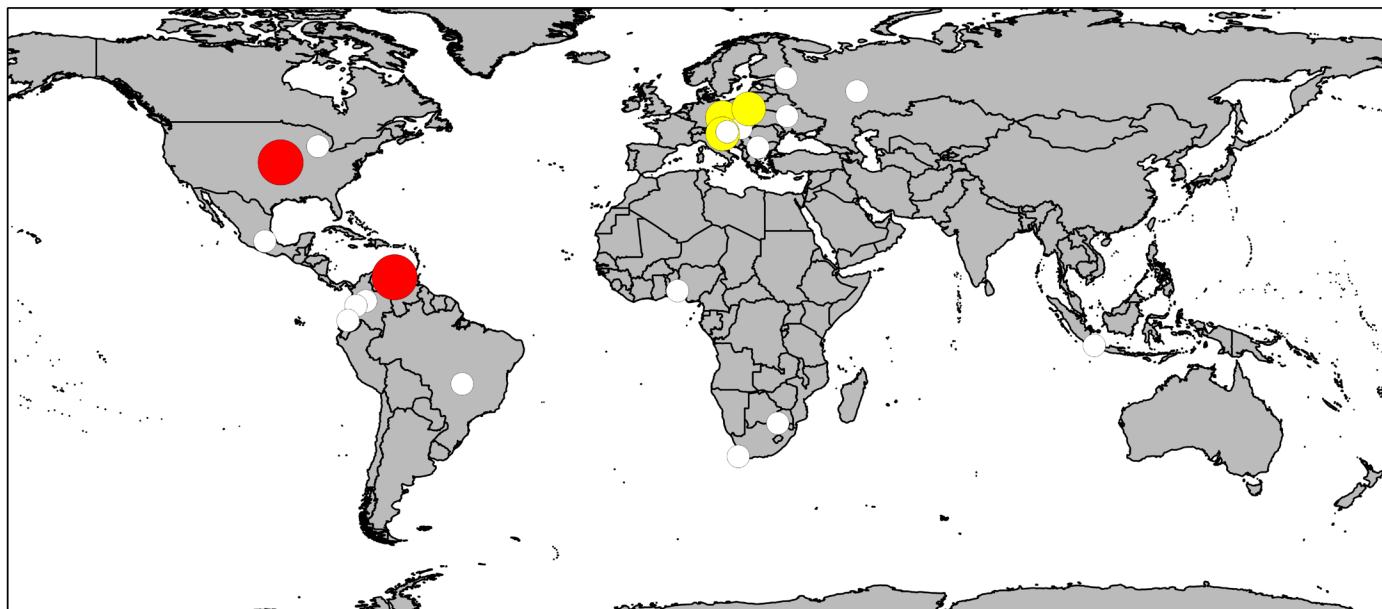
We join this debate as a global suite of colleagues in academia. Our group of colleagues, a network of researchers active in scholarly publishing, spans four continents, multiple disciplines in the natural sciences, humanities, and social sciences, as well as diverse political and economic situations. We believe that this global sampling of researchers can provide nuance and perspective to permit us to address this complex problem, though it is important to note that our group was assembled without an attempt to achieve systematic global coverage or representativeness across disciplines or regions (see Figure 1, following page).

Our goal is to add to the voices reporting on empirical research seeking optimal paths towards a robust, sustainable, and globally balanced system of scholarly communication. Those voices must include both scholars in the “center” and in the “periphery” (Canagarajah, 2002). The most comprehensive study we have found to date gauging global attitudes about OA is a 2013 survey by the publisher Taylor & Francis (Frass, Cross, & Gardner, 2013), which includes an attempt to quantify views by region and country regarding matters such as license types, and perceived advantages and disadvantages of degrees of openness. The T&F study has been noted for both its usefulness and flaws (Morrison, 2013), a fundamental flaw being that the study is publisher rather than scholar-driven, and thus represents the interests and concerns of publishers in its design.

Finally, we wish to note that an interesting (but challenging) aspect of this analysis has been interpreting one another’s experiences in an appropriate, cohesive manner, given that our situations, cultures, disciplines, and perspectives differ significantly. Even within academia, the diversity of approaches leads to different discursive strategies, as well as simply the discomfort of discussing sensitive topics, such as economic imbalances. Bottlenecks and failures in the scholarly communication system (including the promotion and tenure process)

**Figure 1. Locations of co-authors on this paper.**

Circle size indicates proportion of authors from a particular region.



often coincide with individuals and institutions unable to pay the high fees of private scholarly publishers, and our reactions to these limitations range from gratitude for what we do have to frustration about what we do not. In capturing this range of reactions, we confront these problems of diversity head-on. While we are aware of the biases and gaps that influence almost all such surveys and assessments (Henrich, Heine, & Norenzayan, 2010), we cannot control for these problems, but only strive to be aware of them in our thinking. Our goal is to further the underlying principle of OA, which fosters open channels of information flow not just from rich to poor countries, but also allows each scholar to contribute the elements that s/he knows in the context that s/he knows it.

#### **OA IS OPEN, BUT IS IT GROWING THE RIGHT WAY?**

Scholarly communication has been evolving rapidly in recent years. Important trends have included massive increases in the number of scholarly journals and in the number of papers published; increases in the number of participants in high-level academic discourse around the world; broad incorporation of “impact factors” as a measure of quality of academic production; and many other nuances of a growing, evolving, multidimensional system. Perhaps the most dramatic change in recent years, however, has been that of scholarly/academic

journal publication moving almost completely into the commercial world. For-profit publishing interests found that academic journals have been an excellent investment and a growth market with dedicated customers, and they have invested massively in the field (Beverungen, Böhm, & Land, 2012, p. 930–32). A consequence has been a sustained, long-term increase in costs of access to traditional scholarly publications, with yearly institutional costs often running in the multiple millions of dollars.

Because of this dramatic increase in cost of access to the traditional scholarly literature, as well as the need for more equitable access to scholarly literature, the OA movement has gained considerable momentum. In its early stages, the movement consisted of establishing exemplar OA journals (e.g., the Public Library of Science series), faculty-driven OA declarations and policies at numerous academic institutions (e.g., Harvard, MIT, Kansas), and OA policies at numerous funding agencies (e.g., Wellcome Trust, U.S. National Institutes of Health, European Research Council), a process that has been termed “termite change,” focusing on the inexorable bottom-up gravitation of individual and institutional practice toward openness (Mittel, 2013). While the process has not been without problems—see, e.g., the establishment of predatory for-profit OA journals (Beall, 2013)—the movement has seen considerable buy-in,



basically because all academics, professionals, and the general public depend critically on access to the scholarly literature and all parties are disadvantaged, to some degree, by cost increases.

### THE GLOBAL SCHOLARSHIP LANDSCAPE: NAVIGATING THROUGH INFORMATION DESERTS

We find the reader-pays system restrictive. The bird's-eye view of the present system of access to research is akin to the U.S. Department of Agriculture's notion of "food deserts" (2014). Some institutions have plentiful, easy access to literature published under the traditional reader-pays model, such as at well-funded universities in the capital of a country, but others are further from major population and economic centers, and access is much more limited. At such information-starved locations, researchers may not be aware of the full range of publications that they might access under better conditions. Most, however, are acutely aware of the lack of access to research, and are both conscious of their lack of access and display considerable ingenuity in finding workarounds to gain access.

Those of us working in such "information deserts" frequently rely heavily on colleagues in larger institutions, often abroad, to supply key articles from traditional reader-pays sources; others note that we spend all time possible in the libraries of more fortunate institutions, loading up on publications that they cannot access from their home institutions. One of our authors from the Czech Republic notes that young scholars may find spending vacation time camped in libraries in Berlin and Vienna for research agreeable, but once they start a family, this workaround is no longer as viable.<sup>2</sup> Similar narratives were mentioned by several of our co-authors—this practice is clearly not limited to the Czech Republic.

A common view among many of us is that open access to research should be the default, and that any arrangement requiring pay-to-access remains out of consideration. So, for example, in the Republic of Slovenia, the Digital Library of Slovenia provides excellent access to a certain set of publications, but anything that this library resource does not offer simply remains outside of Slovenian researchers' purview. Others in our author group indicate frustration at our home institutions

<sup>2</sup> It is a running joke that the Czech scholarly community "goes expat" each summer in foreign libraries.

having to pay for access to literature produced by the very same institution. Different co-authors echo these themes, albeit with local variations.

Others among us point out that costs associated with electronic access often exceed costs of still-pricey, albeit in some locations more accessible, print volumes. This situation reflects the reality of coping with old and new technology simultaneously, and speaks to an odd circumstance, given that electronic publication *should be* much less costly than paper publication, but often it is not.

The question of how to access reader-pays literature affects different members of the group in different ways. Some co-authors express satisfaction that government- and university-based resources allow them to access the scholarly literature adequately. Others of us, most often those aware of the magnitude of their institutional expenditures, express concern that our institutions, invariably supported by public resources, feel pressured by the massive expenditures in this realm.

Necessity is the mother of invention. Some of us have invented a range of ingenious workarounds to the problem of how to pay to publish in the OA system. This inventiveness is simultaneously refreshing in that scholars find a way to get the job done come what may, but also disheartening, in view of the amount of creative energy that could better be applied to the research endeavor itself.

Several of us describe the key role of networking—e-mail reprint requests, web-pages, and personal connections—in gaining access to data and articles not available through normal library channels. One of our authors finds it most effective to directly e-mail authors of reader-pays literature to access papers; though it is a time-consuming approach, authors are generally sympathetic and eager to provide copies of their work published in reader-pays sources. Some of us also noted other workarounds, including working off author fees or subscription costs by in-kind services, e.g., reviewing manuscripts, writing book reviews, etc.; mobilizing student assistants to build relevant data resources using Wikipedia in a national language as a platform; bargaining with foreign universities after a guest lectureship to maintain e-mail and electronic-resource privileges; seeking collaboration specifically with colleagues holding substantial research

funding; pressuring local authorities to find resources for crucial subscriptions; seeking waivers to APCs and mobilizing foreign partners to pressure other institutions to lower costs. Some workarounds involved making available publishers' final copies of articles available openly on the Internet regardless of legal permission.

Perhaps the most quotidian and widely-used method for accessing relevant data and papers is contacting researchers directly and asking them to share their work. Another variation on this theme is requesting researchers to find materials in foreign libraries. One of us (from the Czech Republic) has noted with chagrin:

Besides regular stays in foreign libraries, in urgent cases I have asked colleagues from abroad to download an inaccessible article for me. This creates a situation in which one is constantly forced to bother someone else without being truly able to reciprocate for these services (for instance, non-native speakers of English also frequently need to seek assistance in proofreading their English texts). I am probably not the only researcher from a post-communist country who feels that such a situation creates and strengthens our inferior status. Whereas the strategy to note down all articles and books one needs to check and consult over summer in the foreign libraries might be a creative solution, the necessity to ask other scholars to download articles on someone else's behalf is, frankly, humiliating.

Again, the system of communication excludes less-well-heeled members from the "club," even if they have the confidence to ask for membership.

## RESPONSE TO OA PUBLISHING AND AUTHORIZING IN GENERAL

As the OA system evolves, adaptations to it also develop. Our views on the current OA solution range from "OA journals work well for me" to "they do not work for me or others," and many shades in between these end points. Several among us note that OA journals now constitute a significant source of information in the scientific literature, and have increased the readership of the scholar's work. Others of us remark that OA provides a major opportunity for small or regional journals in their area to expand readership and provide a potential future

venue for global authors.<sup>3</sup> OA *articles* are also read more, not just by scholars but by the general public, at least from anecdotal evidence. In the humanities in Bulgaria, and, as far as can be seen on lists of journals on university websites, libraries, and research groups in other European countries, many new scientific journals have chosen the OA route, and are a growing source of information. They give orientation concerning trends in publishing research results, illustrating an increasingly global dissemination of scientific ideas and results.

Others among us believe that the OA system is not working well yet. The *best* new work continues to be published in closed-access journals with high impact factors, indicating that OA journals have not yet reached critical (global) mass. OA also includes some for-profit enterprises that do not have as their primary mission open and widely disseminated communication (Beall, 2013); as a consequence, some scholars are not able to trust many of the OA journals, except for a few well-known examples (e.g., PLoS [Public Library of Science] and BMC [BioMed Central] journals). In earlier generations of relationships between scholars and libraries, librarians filtered out the "dodgy" journals and did not obtain institutional subscriptions; now, however, all of these journals are visible online, and come to the scholar via e-mail or web searches, with little or no filtering with respect to quality and impact of the journal. Other authors mentioned that few trusted OA journals exist in their fields, and that others are viewed as low quality or unknowns.

Information published in OA journals now constitutes a major source of knowledge for students and colleagues in some countries; this point is particularly evident in biology. Authors noted that most classic papers in a scholar's field are not (yet) usually published in OA journals, but rather in well-established reader-pays journals. Author preference for publishing in these journals, rather than in OA journals, is related to both the prestige of the former and the difficulty of paying the publishing fees of the latter. Opinions as to whether readership and citation rates in OA journals function well for the authors are diverse. Some of us indicate that the current situation works well and that no changes seem to be needed. Others, however, observe that readership and

<sup>3</sup> These journals were noted in particular: *Ornitología Colombiana* (Colombia), *Slovenski jezik / Slovene Linguistic Studies* (Slovenia), in which some of our authors are involved as editors.

citation rates have improved, and access is quicker in OA journals. Some find it easier to discover scholarship in their field; others find it easier for others to locate their own work. Many note that they must scramble to get published and to get their work accessed and cited, and that they then must also scramble to get access to good scholarship to read for themselves.

We have a positive general view of OA. Simply put, as a group we see full and free OA as the only means by which the playing field *can* be leveled, allowing all scholars, regardless of location, an equal opportunity to participate (publish and read) fully in scholarly communication. Many of us have expressed awareness that *someone* has to pay for scholarly communication, but the obstacles to paying author charges or subscriptions to closed-access journals for colleagues in lower-gross-domestic-product (GDP) countries are frequently insurmountable. Salaries, the consumer price index, and costs of publishing in a global market can constitute significant barriers both in lower-GDP countries and even at some institutions in countries with higher GDP.

Some of us view the democratization of access as bound to push the whole system towards openness, albeit at the risk of compromising quality. Some also note that the instantaneous nature of OA publishing speeds communication, and that intellectual property issues become moot given the transparency of a system that gives ubiquitous access. The speed factor is seen by some authors in a different light, namely, as a means by which less developed countries could make more rapid technological and economic progress, the obvious implication of which is that paywalls for authors become, conversely, a direct hindrance to such progress.

Another dimension of the problem, however, is the complexity surrounding journal impact factors currently used to judge importance of publications. Many of our authors view traditional journal impact factors as retarding participation in OA journals.<sup>4</sup> This issue seems divorced from economic factors, and raises the question of whether national and institutional promotion and tenure policies might be revisited with an eye to removing obstacles for open dissemination of scholarly production, including those barriers of the more restrictive type of Gold open-access journals that require the author to pay (APCs).

<sup>4</sup> Authors from Cuba, Czech Republic, Nigeria, Poland, Slovenia, and South Africa made a special note of this.

Among the more poignant comments encapsulating imbalances highlighted here, two of us from Africa put it this way:

As a writer, you feel disconnected when you find out that you can read and cite a good paper from this journal, but cannot publish in the same journals due to restriction of funds. As a reader, you feel satisfied that you can now get easier access without pay, but the sense of belonging and checking such journals regularly is not there. Somehow, we tend to check the journals where we have previously published good work more.

This comment puts into words what we all know as researchers; that is, that the satisfaction of getting our work into a good journal is a feeling of having “arrived” ...“joined the club,” as it were. However, those excluded from contributing to the scholarly communication system for *purely economic reasons* are left out of an ever-more-exclusive club. Such exclusion has implications for career advancement, satisfaction, and motivation, not to mention for the scholarship that the global public may not be able to access. Ideally, as scientists and scholars, we want all our creative and brilliant colleagues in the club, regardless of their ability to pay the cover charge.

## WHEN GOLD REQUIRES "GOLD"

Overall, our group of authors notes diverse issues regarding the Gold OA model where authors must pay—some of us have had positive experiences, whereas others have found it to present significant barriers to publishing, or have ideological objections to using journals that require author fees. We agree on the principal barrier, namely, that fees are prohibitive. In many cases, the amount of money is so substantial in local currency that the scholar does not even try to submit a manuscript. For many of us, these fees constitute psychological barriers. In other words, even if developing nations are not subject to the fees or if waivers can be requested, authors may still choose not to submit manuscripts.

Even if the home institution can pay publication fees, several of us mention other, more pressing needs for those funds, in particular, supporting the research endeavor itself. The publication fees exacted by some publishers are equivalent to multiple months of salary for some authors, so the quantities involved become enormous in



a local context. Some of us report having completed the submission and review process with a Gold OA journal, the paper having been accepted, but in the end being forced not to publish the paper (“in part because of funding limitations”) or because waivers were denied. One of us requested a fee waiver, but the fee was reduced only by 10%, still significantly out of her price range, particularly in proportion to that author’s nation’s gross national product (GNP)—this example came from an Eastern European author whose country would not meet the journal’s “poverty threshold.” We have also noted that impact factors of Gold (author-pays) OA journals are not sufficiently high, and so we avoid publishing in them.

As an example of a relatively less well-funded research institution in the U.S. context, the University of Kansas (KU) spends over USD\$4.5 million per year on serials subscriptions for access to tens of thousands of journal titles. To support authors at KU wishing to publish in OA journals with APCs, KU recently instituted an OA Fund which is available to some 1,600 faculty on four campuses. The two-year pilot project allocated \$25,000 annually for this purpose. Notably, in the first year, the allocation was exhausted in less than six months. In the second year, over half of the funds had been disbursed to KU authors within two months. KU is the flagship public university of the state of Kansas with more than 30,000 students. However, when compared to more wealthy, private schools or better funded public universities outside of Kansas, it is far less well-funded for access-related expenditures by U.S. standards.

On a more positive note, several of us report good experiences submitting papers to OA journals with author fees and requesting waivers (PLOS journals were mentioned specifically), appreciating that the waivers were in place for us and that the “system worked.” As a matter of practice, one of us asks up-front if a particular country of origin helps with getting a waiver. This comment reflects the fact that many of our group of authors do not want to waste time in the submission process and peer review only to find out that publication fees will not be waived.

The fees involved in Gold OA serve, in theory, to provide resources to the publisher necessary to make possible publication of a paper in a scholarly journal. These costs, however, are frequently quite high; publication in PLOS journals, for example, can cost in excess of USD\$2,000

per paper, and average publication charges are on the order of USD\$1,300 (Solomon & Björk, 2012, p. 101–102). Although many institutions in Western Europe and North America pay these fees regularly, they can be a significant barrier elsewhere. Several among the authors of this contribution compare these amounts to monthly or yearly salaries. For example, APC costs for publication of a single article are on the same order as or higher than the amount of a monthly salary in the Czech Republic and Venezuela.

Many of us indicate that APCs are exorbitant and that we cannot afford to pay them with existing and available resources. In some cases, institutions provide funds to pay these costs or some grants allow the inclusion of APC fees. However, even when grants can cover the fees, the transaction can be problematic if the article is delayed and the grant ends. In such a case, the author can end up having to pay the bill out-of-pocket. In sum, APCs are significant amounts of money, and resources available frequently are nowhere near sufficient. This fee then constitutes a significant barrier for global scholars to contribute to the global pool of journal-published scholarship. If a global network of individuals must all pay the same, flat fee, the situation cannot be equitable. OA, in the broadest sense, aims to create a barrier-free system of dissemination of scholarly information so such a flat fee cannot achieve a fair solution.

Many OA journals with author-fees indicate that, although their publication fees are high, they readily grant waivers to make sure that those fees do not affect authors. For instance, PLOS journals have the following statement on their web pages:

PLOS is committed to the widest possible global participation in open access publishing. To determine the appropriate fee, we use a country-based pricing model, which is based on the country that provides 50% or more of the primary funding for the research that is being submitted. Research articles funded by Upper Middle and High Income Countries incur our standard publication fees [...] Fees for Low and Lower Middle Income Countries are calculated according to the PLOS Global Participation Initiative<sup>5</sup> [...] Our fee waiver policy, whereby PLOS offers to waive or further reduce the

<sup>5</sup> <http://www.plos.org/about/viewpoints/global-participation-initiative>

payment required of authors who cannot pay the full amount charged for publication, remains in effect. Editors and reviewers have no access to whether authors are able to pay; decisions to publish are only based on editorial criteria. (2014)

The BMC journal series has the following statement:

To support researchers in developing countries, BioMed Central operates a waiver scheme<sup>6</sup> that enables authors to publish their research in a BioMed Central journal without incurring the usual article-processing charge [...] BioMed Central provides an automatic waiver to authors based in any country, which was classified by the World Bank as Low-income economies or Lower-middle-income economies as of December 2011, and which has a 2010 gross domestic product of less than 200 billion US dollars. (2014)

Many of the humanists and non-humanist scientists in our author group report little—if any—experience with waivers, leading us to conclude that waivers are relevant mostly in the natural sciences, and not broadly across academia.

Actual *use* of these waivers by our group, however, varies widely. One of us reports repeated success requesting waivers from the PLoS series of journals, wherein no questions were asked once the waiver was requested. Another of us, however, writes:

I submitted a manuscript to *BMC Evolutionary Biology* a month ago. In my case, they reduced my publishing fee from USD\$1,915 to USD\$1,536. I based my waiver request on the impossibility of paying publishing fees. The process was relatively easy, but the reduction was relatively low, and I was not allowed to request an additional reduction.

Clearly, these waiver programs vary in effectiveness. In some cases, the scholar in the developing world has been able to publish her or his work in an OA journal with an APC via simple requests of waivers. In other cases, however, the reduction is on the order of 20%, but still prohibitively high for the developing-world author to be able to come up with such a sum.

<sup>6</sup> <http://biomedcentral.com/authors/oawaiverfund/>

## CONCLUSIONS: WHEN GOLD OA ISN'T GOOD ENOUGH, WHAT WOULD PLATINUM OA LOOK LIKE?

We offer several reflections on the state of the scholarly publishing system, from both reader and author perspectives. Several of us add philosophical as well as pragmatic reasons why an OA system is the ethically appropriate system, citing private and public gains from a system funded (ultimately) by the public and inherent in the spirit of scholarship and research.

We show general enthusiasm for OA as readers, although some of us feel the need for this change more intensely than others. Those who are less concerned regard our institutions or agencies as adequately meeting our needs as readers, regardless of OA. However, OA from the *author* perspective is much more complex. Those seeking to publish in the OA system face diverse pressures. On one hand, there is the need to pay author fees that are required by top OA journals. On the other hand, those funds might better be put to other purposes. One of us suggested that more economically-challenged authors might best publish in less-visible journals because that is where they can afford the publication fees. Still, researchers in many of those same countries are required to publish in those same higher-impact journals for professional advancement. The result is a mixed degree of enthusiasm for an OA system that is open to readers. However, for writers it is a high-ante game. The economic status of the writer may keep him or her out of the game altogether, which, in turn means that the Gold OA system today is inefficient as a solution for scholarly communication.

We also note that change in one part of the scholarly communication system toward openness can have unintended, perhaps unknown, or not-yet-discussed, consequences elsewhere in the system. This paper has been an opportunity to examine a fuller collection of scholars' experiences with publishing regimes as they change toward one that is open for readers (finally). There should be a way to fund open publishing models that can provide open, transparent, appropriate-cost, innovative access and outputs for scholars from a variety of cultural, political, national, and disciplinary environments.

A “green paper” by a U.S. consultant group suggests an interesting approach (Kennison & Norberg, 2013). This paper provides a roadmap for journals to move to and

be funded by OA models where, presumably, OA fees to authors would not be part of the business model. Although early in its vetting, the idea is to establish a multi-phase, multi-year transition in which numerous U.S. and a few non-U.S. institutions pay into a fund that would then be disbursed to fund new or ongoing OA publishing endeavors. The idea appears well conceived, although it is focused on North America early in its implementation phases. A global readership would benefit early on; in later phases, institutions from around the globe would be invited to support OA journal publishing in local and regional contexts across the planet.

In summary, in this paper we offer a diverse set of viewpoints towards opening access to scholarly publication. In reflecting on the respective needs of readers and writers, we are alarmed at a system that may solve the reading-access problem but leave the writing-access problem unaddressed. We emphasize full, inclusive global participation of scholars in a communication system that discriminates only on criteria related to the quality and insight of scholarship. As our co-author Laura Czerniewicz (2013) has written in her blog, “[t]he open access movement needs to broaden its focus from *access* to knowledge to full *participation in* knowledge creation and in scholarly communication.”

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