



OPEN ACCESS

GSA JOURNALS ARE COMING

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Abstract

Beginning in 2017 and phased in over the following three years, all GSA journals will be freely available online (i.e., open access). GSA journals will retain their high quality; there will be no change in current editorial or peer-review policies and procedures. The major impact of this change for GSA will be a loss of subscription revenues that currently underwrite many GSA programs. To offset these losses, a publication fee will be instituted along with the designation of some strategic funds to assist authors who lack resources to pay these fees. GSA leadership is reviewing all existing programs to find savings by modification or elimination of non-mission-critical activities and seeking other financial options for the transition. In addition, annual membership dues will modestly increase, and Council will restrict new strategic initiatives until the implementation process is completed. The GSA Foundation will increase its activity in support of GSA programs.

INTRODUCTION

GSA Council in October 2014 voted to move all GSA journals (*GSA Bulletin*, *Geology*, *Geosphere*, and *Lithosphere*) to open access, phased in over a three-year period beginning in 2017. Phasing in open access over three years will permit GSA’s professional publications staff and editors to manage the transition smoothly and to allow GSA to make the necessary financial arrangements to accommodate the significant decline in revenues now generated by journal subscriptions.

WHAT IS OPEN ACCESS?

In simplest terms, open access is publication via the internet that is “digital, online, free of charge to the reader, and free of most copyright and licensing restrictions” (Suber, 2013). As Suber notes, it is compatible with peer review and need not detract from the quality of scientific publications.

WHAT WILL HAPPEN?

The key elements of the Council’s decision are

- GSA journal articles will be immediately accessible online, by anyone, at any time, anywhere in the world, with no required

subscription. The present implementation model has this occurring in a phased manner, as follows:

- 2017: *Geology* becomes open access;
- 2018: *Geosphere* and *Lithosphere* become open access; and
- 2019: *GSA Bulletin* becomes open access.

- With implementation of open access, the page charges as well as color charges for photos and illustrations that exist with printed journals will cease, but an article publication fee will be charged.
- For authors unable to pay this fee, GSA will develop a process for the provision of full or partial subventions from strategic funds or other sources.
- The quality of GSA journal publications will remain as they are now since there will be no changes in editorial policies, peer review procedures, or article acceptance standards.
- The Society is actively reviewing its current business practices in order to absorb the anticipated declines in journal-derived revenue. This will include some changes in or elimination of existing GSA programs determined to no longer to be effective or central to GSA’s mission. In addition, annual membership dues will be modestly increased to offset some revenue losses.
- Effective January 2017, all GSA journal content, including full access to the journal archives, will be freely available online to GSA members.

WHY IS GSA MOVING TO OPEN ACCESS NOW?

The much-vaunted and anticipated digital future has arrived. This now-mature technology will allow GSA to lead the scientific community in expanding the reach and impact of our science. GSA can eagerly embrace this opportunity or passively wait for it to be forced upon us.

For 127 years, our Society has embraced the mission articulated in its Constitution of 1888 to promote “the science of geology by the issuance of scholarly publications” (Article II). In 1888, the only means of accomplishing this goal was to publish traditional journals that would be sent to all members and housed in the collections of university and other research libraries across the globe. Consistent with this historical role and through the dedication of professional staff and the unselfish commitment of editors, authors, and reviewers, GSA publications are acknowledged to be among the most stimulating, rigorously reviewed, and high-impact sources of scientific information in the earth sciences. That will not change and, in fact, the impact of these journals should increase.

But, in 2015, the publishing paradigm *is* changing. The opportunity to publish the results of research online means that no researcher anywhere in the world need be denied immediate access to the latest scientific findings—and no author is prevented

from having her research read by anyone interested in the results. This fulfills the intent of our founders in a manner they could not have imagined or anticipated.

Open access will strengthen and expand the reach of our science, but only if societies such as GSA willingly embrace this change and find the means to assure that the quality of Society-sponsored online scientific publishing is indistinguishable from the quality of its publications under our traditional model.

GSA Council has determined that geoscience research will best prosper when immediate access to refereed publications is no longer restricted to the few who pay for subscriptions or have convenient access to a research library. Council has proactively embraced the philosophical position that the Society's intent "to be the premier geological society supporting the global community in scientific discovery, communication, and application of geoscience knowledge" (GSA Vision Statement, 2013) is assured and enhanced by the promulgation of the best science to the maximum number of scientists, practitioners, and members of the general public.

In the twenty-first century, this means open access publication of journals.

WHAT ARE THE CONSEQUENCES OF OPEN ACCESS?

Not surprisingly, such a change in publication practices has significant consequences—some are opportunities, and some will be challenges that must be met.

Open access forces a profound shift in how scientific publications are financed. In simplest terms, this is a shift from the "reader pays" to the "producer pays." Since there have always been many more "readers" (i.e., subscribers), than authors, this is a shift in the net funds supporting scientific publication. And, of course, traditional sources of funding for such things as page or color charges must now be reassigned to publication fees.

Ceasing print publication will result in savings. Publication costs such as printing, mailing, handling, storage, and subscription fulfillment will, for all intents and purposes, cease to exist. However, there will be no savings in such areas as editorial oversight, peer review, or publication formatting, as these practices will not go away. In addition, the costs associated with electronic hosting of journals and archives are significant and continuing, but in our current hybrid digital/analog age, these expenses are already being borne by the Society.

From the author's point of view, there will be an additional financial burden in the form of publication fees, though these are likely to be the same order of magnitude of page or color charges in many cases. But there is a significant benefit, as noted in a *Nature* Web Focus article by S. Harnad et al. (2004). Several recent studies in the fields of computer science, astrophysics, and mathematics have reported up to threefold increases in citations for open-access publications as compared to "pay-to-access" publications. We also foresee technological advances that may make GSA publications more interactive and useful to readers.

Real financial challenges will result from the elimination of subscription revenues to GSA in particular and, in fact, of all professional scientific societies. Subscription revenues to learned societies have been steadily declining for a decade or more as fewer members subscribe to paper journals and more institutional libraries limit subscriptions or provide access through a variety of

bundling services. But we must be honest that embracing open access may convert a steady revenue decline from dwindling journal subscriptions into a precipitous one.

Such a predicted decline in one of GSA's primary revenue streams requires of GSA leadership a fulsome review of all current activities with the goal of seeking and implementing real cost savings. That process has begun. As noted previously, annual membership dues will increase modestly so that GSA can continue to support the important programs that members have asked for and which, in the past, were supported by journal subscriptions.

And, finally, the GSA Foundation Board of Trustees has eagerly embraced the transition to open access and will, with Foundation staff, work tirelessly over the next few years to obtain new resources to support ongoing programs at GSA, thus freeing up more GSA resources to help with the transition.

CONCLUSIONS

GSA could lead or GSA could follow. Governmental agencies are increasingly considering mandating versions of open access as a consequence of the recognition by policy makers that it is difficult to justify restricting access to publicly funded science (see Holdren, 2013). GSA could passively await these mandates, since it is conceivable that, as a consequence of political compromises, the mandated versions of open access may continue to permit some kinds of more-traditional publication to persist for a time. For example, the Holdren memorandum allows a one-year embargo before an article is freely available to all online. However, it is not clear that this compromise position will hold (see Harnad et al., 2004).

In the view of GSA's leadership, the compromise position is not consistent with our traditions or our vision for the future. We see our mission as assuring that our members are able to (1) be confident that their published scientific findings can reach the entire "universe" of interested scholars and practitioners without traditional barriers that have, frankly, become obsolete in the digital age; and (2) be able to access GSA publications online as a benefit of membership in both GSA and the geoscience community as a whole.

The next few years will be challenging ones as open access is implemented. But this is the right thing to do at this time. We are confident that GSA and our science will emerge stronger and more vibrant as a consequence.

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