

Larry ideas on a novel publishing method, proposed to be hosted by gpr-archaeology.com

There is a coming crisis with peer reviewed publications in our field. The symptoms have been apparent for about 6 or 7 years and are now becoming obvious. Those of us who came from the academic realm have always relied on well-established publications to “show our worth” and achievements necessary for promotion and tenure decisions. The number of articles that one published, total pages, and the “impact factors” of the journals are usually all taken into account to measure an individual researcher’s achievements, as well as that of an academic department and in some cases a university as a whole. This legacy system relies on a few things to make this system work:

1. **Free labor:** this comes from authors who need to “publish or perish” and peer reviewers who give their time and expertise as a form of “service to the discipline” and general goodwill.
2. **A kind of slave labor:** the editors of the journals who get paid a very nominal sum to shepherd articles through the process from submission to publication.
3. **“Rental” of subscriptions** to university libraries all over the world who are charged on per-article or sometime per-page basis that allow their patrons to download articles.

When these factors are measured and considering the significant profitability of this system it is no wonder that many large publishing houses have gone into the peer-review article business. More than 50% of all peer reviewed journals are now published by only 5 houses: Elsevier, Black and Wiley, Taylor and Francis, Springer Nature and SAGE. Their profits are huge as the actual cost to produce their produce, which are now completely digital articles, is low and the captive labor from academics who are pressed into generating the articles and those who feel duty bound to review them is close to nil. Some estimates are that these 5 publishing firms’ profit margins on actual costs incurred (return on investment) can reach 40% per year, making this one of the most profitable industries anywhere (even more than Google!).

While I am not against profit *per se*, this model still bothers me, as there are many players in this process who are being taken advantage of. Many are being denied access to important published materials because of the way the university systems and publishing business are set up.

Peer reviewed articles are still the prime factor in evaluating progress of a researcher and changing this long-held factor in evaluating productivity in any notable way is likely to be slow. Over time this process has also led toward some journals publishing “less-than-high-quality” articles, just to churn them out and keep the cash flow going. We can all remember some of these kinds of publishing problems occurring in the last few years, which are best forgotten.

A related problem of this sort became apparent to me in March, 2025, when there was a huge “publicity splash” made in the world of GPR for archaeology about the Giza Pyramids in Egypt. Some Italian scientists made some outlandish claims in a press conference about deeply buried and very complex structures built below one of the pyramids. Their claims were based on an article published in a peer-reviewed journal (Remote Sensing Journal published by the huge Swiss consortium MDPI). To my horror I was reminded that I was a peer reviewer for that article, and people all over the world contacted me to ask if I really believed all the claims these people were making in the news media (and later in hundreds of on-line posts). I went back to my review of that article I did in 2022 and I reminded myself that I had told the journal editor that I thought the authors used general data collection models that made sense, but that I didn’t understand how they had reached their conclusions based on their data analysis. In my

review I suggested that the editor find some additional reviewers who could evaluate their claims before considering publication. I never heard back, and promptly forgot about it. My suggestion was apparently not taken seriously, and the article was quickly moved from that draft I reviewed to a published article, presumably with the “peer review” process completed in the mind of the journal. What a mess that became! The authors then applied for patents on their methods and started making press releases about their conclusions presumably to justify future work elsewhere. In this sad case I must conclude that the peer-review was nothing more than a “fig leaf” and I was the “sucker” who seemed to have facilitated it. This took a week or more out of my life responding to people from all over the world who were interested in these crazy results.

Today we are stuck with a process where academics and others have “bought into” this system that is becoming more and more corrupt. The “good-old days” when some of us subscribed to journals of interest and had them delivered to us in hard-copy format to read, as a way to keep up with advances in the field are over. In those “good-old days” besides reading journals that I subscribed to, I used to go to my academic library when I had free time and browse the journals of interest that I had not personally subscribed to in order to see who was doing what. I also subscribed to an e-mail notification scheme that searched for articles on certain topics and key words to let me know when they were being published and in what journals, so I could find those that I was interested in on my library shelves.

Now we can still rely on this type of notification (or be motivated enough to do a Google Scholar search periodically) to find who is publishing what and where. But without being a member of an academic library one must pay out-of-pocket costs to read downloaded pdf files from most journals.

A notable exception was a publishing method started about 2002 that created a new model called “open access” where articles were published (usually by non-profit organizations or associations) and could be downloaded by anyone free of charge. For these entities to be financially successful the authors or their institutions needed to pay “subvention fees” to defray the costs for these enterprises. The authors and reviewers still work for free. There is benefit to this system, as theoretically authors’ articles can be more widely consumed, but the “up front” fees can often be onerous. If research is conducted through large grants, these costs can often be covered by those funds, but for “low budget” research projects, these can be out of reach. This is the systems that MDPI uses for their hundreds of peer reviewed publications in many fields (of which the Remote Sensing article about the pyramids was published).

There is “reviewer fatigue” and “author captivity” accompanied by the institutional process that relies on metrics from this “legacy publishing system” to “evaluate productivity”. This system is not going to go away near-term. But, I think there is plenty of space for a different publishing model that can fulfill the needs of authors, which was at one time a mainstream publishing endeavor, but has been abandoned in favor of profit motive. It will also facilitate the access of information by interested parties at no cost to them.

I propose to instigate an on-line publishing endeavor focused on geophysical archaeology, hosted by me and open to all as a platform for article. Its format would also facilitate notification to interested parties as soon as articles are published:

1. It would solicit articles of any length that meet a few criteria:
 - a. Have generated results that are meaningful, other than “just finding things” in the ground, which is the goal of most “site reports”.

- b. Experiment with new data collection or processing methods that have proved successful.
 - c. Even articles that show failures and problems, which can help others with their research (not something that anyone usually wants to publish but is an important aspect of the scientific method).
- 2. Produce reviews and comments on these by those who access the articles. These can be read, learned from and commented on by our community, which would then lead to better methods, data analysis, and well-supported conclusions. Those constructive comments can lead to taking these articles and re-working and editing them to be published in the legacy peer-reviewed publishing system in the future.
- 3. Include editorial review and analysis before publication on this site by one or more on the editorial review board. In this way “peer and editorial review” can be done in a timely fashion that will enhance articles and filter out others that might not warrant publication.
- 4. Allow authors to move through the process from writing to publishing faster and get their results to as many potential readers as possible both efficiently and at no cost to them.
- 5. Notify interested readers immediately as articles are finished and ready to read, posting them on-line in an open-access format (as pdf files).
- 6. The open-access format will also allow any article to be read by anyone, not just our community, and links can easily be copied of published articles on this site and circulated to others. (or pdf files can be downloaded and shared). There will be no copyrights on articles published.
- 7. Produce a comment section for each article that will allow readers to post their analysis of conclusions (moderated by the editor in chief, so there are no Twitter (X)-like bad feelings types of comments). These can be read by authors and anyone else as an evaluation of each posted article.
- 8. The site will produce statistics of the downloads for each article, with an analysis of who is reading each and where the authors reside (somewhat like a citation index in other publications, or an ‘impact factor’).