Indian Association for the Cultivation of Science, Kolkata School of Materials Sciences



Title: The Perils of Academic Publishing: Publish or Perish

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Declaration

I hereby declare that the works reported in the project is based on scientific observations and findings and is not plagiarized from any sources and neither any data have been fabricated, manipulated or misrepresented.

The Perils of Academic Publishing: Publish or Perish

What is Publish or Perish? The phrase "publish or perish" is a term you would hear quite often if you are part of the, higher academia. It showcases the urgency of scholarly publishing for survival in this field. While it's important to publish and necessary one might add to advance their careers. From Ph.D. students to senior professors, all have succumbed to the 'Publish or Peril' mindset. Currently, all merits and promotions are based on how many papers you can publish within a stipulated amount of time.

In this essay, I will explain what it means to "publish or perish" and how it has created a certain academic culture with its both positive and negative aspects and why we need quality not just quantity in our work being published.

Advantages of this system is its role in advancing knowledge, fostering innovation and creating networks and collaborations from different fields. The emphasis on publishing regularly encourages researchers to actively contribute to their fields, ensuring the continuation of new breakthroughs in science.

This steady flow of information fuels progress, allowing for the rapid development of ideas and solutions to complex problems. While advancement of science is not only important but some would say essential in today's economy. Prof. Surajit Singha quoted in one of his classes that Sweden increased their GDP by 1% by purposefully developing a new kind of drug. The drug in question has claimed to cure diabetes while simultaneously reducing body weight and has become very popular.

Moreover, the process of frequent publishing helps in professional development as well. Researchers are motivated to refine their writing, presentation, and analytical skills, which are essential for effectively communicating their work. This practice not only enhances individual capabilities but also strengthens the overall quality of academic discourse.

While it all may seem perfect in a perfect world, the pressure to publish is, of course, only intensified by the academic landscape today — particularly for those on tenure-track and in faculty positions as funding becomes more scarce and other metrics (e.g., citation counts, impact factors) increasingly highlight their importance.

But why do we publish? The role of publishing for researchers in furthering science or just their academic career and bank payrolls. This is one of the important negative aspects of this mindset. The need to publish might help researchers reach closer to the borders of their disciplines, motivating novelty and faster sharing of scientific discoveries. But it has a whole heap of unpleasant side effects that go with it.

It is noteworthy to mention that this mindset may lower the quality of research as more researchers pursue questions which will guarantee their funding but not contribute meaningfully to scholarship. It can create a cutthroat ambience that can promote immoral research conduct. This fuels all-too-common high-stress levels in researchers and contributes to mental health issues. Frankly, it is quite common in research institutes. Universities like Harvard, Oxford, Princeton etc. has thrived in such environments. If you ask around, then

you might find alumni boasting that 'true competitive nature' in terms tenure and funding is the only reason for its worldwide success.

The pressure to publish is a strong driving force in research that can also lead those under it into temptation, resulting in recording false data, plagiarism or gift authorship (the attribution of an authorship credit to someone who did not participate at all in the work). In some cases, the publish or perish culture can create incentives that compromise scientific integrity.

Recently, the most trending culture in research is "Salami-Slicing" research. Some researchers might "salami-slice," meaning they break their research findings into smaller bits to embellish the number of publications. Now, this may drive up publication numbers. Does not lead to piecemeal science? - is the real question. One might find it to be a loss of research continuity.

The emphasis on making every little thing comes out releases the number of upshots as compared with the price to pay, to ensure that some researchers might commence trading amount for top notch. Such focus on numbers can produce trivial or incremental research that does not really help advance knowledge but contributes to the researcher increasing their publication list.

I came across another such phenomenon that is worthwhile to mention. Researching on 'hot topics'- I find it simply amusing that senior researchers always prompt young generations to find acceptance in research units working on such hot topics if students cannot thrive in their current thesis topic. They always make the juniors feel working on hot topics is the easiest way out for success in academic field, even when they themselves do not know much about it. The blind trust that they put on hot topics is solely based on the narrowed vision of funding on such hot topics and never solving the Unknown. According to them, only working on anomalies in experimental work is relevant to gain popularity in the field.

Another aspect of it is burnout and mental health conditions. Stress, anxiety, as well as burnout can arise from persistent publishing demands. This is especially true for young scholars who also have to teach; the pressure to publish often leads to a work-life imbalance and deteriorating mental health.

In a "publish or perish" culture, where passing numbers like impact factors, h-indexes and citation counts are all too often the only measures that count. These metrics might give some sense of the influence of a researcher, but they do not reflect in full either how good or impactful their work is. That dependence on metrics could result in a very limited perspective of academic success and privileging publications with high impact.

It seems likely that such an environment will stifle the type of high-impact discoveries and large-scale, foundational work that is so desperately needed in this field and may instead incentivize minimal-risk, short term projects with achievable outcomes over grand challenges.

I feel finding the right balance is the key to success in such a hostile environment. While the negative consequences seem huge, there are many positive impacts. To make it better, we must be tempted to call on institutions, funding bodies and researchers to reform the academic reward system so there is a balance between productivity and quality that supports a

healthier, sustainable research culture. This policy, focused on producing high-quality and rigorous research instead of blindly counting publications, ensures that academic work benefits the individual researcher as well as society at large — a step towards a more ethical pursuit of knowledge.