In 1995, an article by journalist John Hayes in Forbes magazine predicted that the scholarly publishing giant, Elsevier, would be “the Internet’s first victim.” 23 years later, Hayes could not have been more wrong. His theory was based on the idea that with the advent of the internet, the dissemination of scholarly research should/would be effectively reduced to near-zero cost, and the publishing houses which relied so heavily on subscriptions to printed journals would thus collapse. However, Hayes misinterpreted the strength and control that these publishers had; in terms of size, strategy and marketing power, control over academic career structures, and through copyright and ownership of the scholarly record.

Elsevier, the largest of the scholarly publishers, has built an empire based largely on acquisitions and mergers with smaller publishing houses and their journals. Their business model was, and remains, simple. Have researchers provide their work to you for free, along with their copyright to that work; have other academics edit and review that work, typically for free; and then sell the same content back to higher education and research institutions, as well as government bodies, medical physicians and nurses, corporate research laboratories, educational organisations, scientific researchers, policymakers, students, NGOs, hospitals and health professionals, and virtually anyone else who has a use for scholarly research.

The systemic lock-in here was simple – researchers had to publish in respected journals, often owned by Elsevier, in order to apply for further funding and advance their careers. Simultaneously, research libraries had to have access to as many journals as possible so that researchers could continue to do their work. All Elsevier had to do to combat the threat of the Internet was shift their entire journal system online, and little would have to change.
Elsevier as a direct threat to the future of scientific knowledge

Elsevier continues to be among the biggest barriers towards public access to research, preventing its use as a public good for education and advancement of our society. The vast majority of research that it publishes remains concealed behind paywalls, a form of knowledge discrimination against those who are less financially privileged than all but the wealthiest of research institutes or individuals to afford. It has achieved its monolithic position through a combination of aggressive pricing strategies, actively disabling the ability for any sort of free and competitive market to exist, highly vigorous political lobbying, and taking advantage of largely dysfunctional research evaluation procedures.

Elsevier has now positioned itself within a peculiar scholarly publishing ‘market’ as a leading actor in the commercialisation of knowledge, research information and education. This has direct consequences for public access to research and educational materials, often impinging upon basic academic freedoms and researcher autonomy, and constrains innovation within the entire scholarly communication sector. In its present state, Elsevier cannot be part of any sustainable future of scholarly communication which places public interest at its core.

Some of the major criticisms of Elsevier’s business practices include:

- Using ‘non-disclosure agreements’ to prevent their customers from seeing how much they each pay for Elsevier’s services, shutting down any potential competition or price sensitivity;
- Lobbying against progressive open access policies, and supporting those which seek to slow down its growth (e.g., the Research Works Act, RWA). This includes historically associating Open Access as a threat to scientific integrity and research quality as well as government censorship;
- Generating excessive annual net profits of around 37%, much of which comes from expenditure of public funds (estimated at 68-75% of their total revenue);
- Providing analytics and metrics for the wider publishing industry, presenting an enormous conflict of interest;
- Providing a range of services and tools that lock users and vendors (including their competitors) into becoming reliant on Elsevier for their workflows (i.e., control over entire research processes from discovery through to evaluation), severely compromising standard academic freedoms and autonomy;
- Historical links to the arms trade, publishing of fake and ‘sponsored’ journals, and even plagiarised content.

Consequences of a ‘publish or perish’ culture

The impact that Elsevier has had on modern research cultures is profound. Academics now operate within a system where the venue of publication typically matters more than the content itself. This drives an academic culture where researchers strive for artificially scarce space within journals, where the content is more aligned to match the brand of the journal (and thus its marketability), rather than any value intrinsic to the research itself. This is widely termed as the ‘publish or perish’ culture, as academic reward systems are now often based around superficial criteria such as journal rank or impact factors – things that are independent of any individual researcher or their research.

In turn, this leads to a proliferation of what are widely termed ‘questionable research practices’, which lead to unhealthy competition, the publication of a very biased record of research processes and outputs, and ultimately a distorted global understanding of scholarly research.

The growing concern here is that this creates unhealthy academic working conditions, where it is now becoming increasingly common to hear stories of academic bullying, abuse of power dynamics, and a proliferation of mental health issues, particularly among early career researchers. There is little incentive for Elsevier to either acknowledge their role in this system, or to adapt their behaviours from what is an exceptionally profitable business based
on flawed incentive structures within higher education institutes.

**Potential future role of unions**

At the present, there is an incredible scope for higher education unions to become more engaged with challenging the business practices of Elsevier, as well as other key actors within the scholarly publishing industry. This primarily includes challenging Elsevier’s rent-seeking behaviour, while simultaneously helping to accelerate a global movement towards a more sustainable Open Access ecosystem, defending academic author rights and freedoms, and helping to create fairer scholarly research evaluation processes that are independent of commercial influences. Here, co-ordinated efforts to help inform respective union members about Open Access will be critical to achieving a more unified understanding of the negative impact of Elsevier and their business practices. The unions have a unique role in this by being able to influence the largely untapped power of global academic communities, and empowering them to influence the larger changes currently happening in scholarly communication.

The time for this engagement is perfect, as at the moment there are major shifts happening in the global landscape as higher education and library consortia are mobilising and collaborating for the first time in history to combat the regressive business practices of Elsevier and their kin. With strategic coordination between these consortia and relevant education unions, we could be at a tipping point in history where governance and ownership of scholarly communication is returned back to the public and the wider research sector.

**Recommended strategic approaches to challenging Elsevier**

1. **Academic freedom**: There is a clear role for unions in challenging poorly-developed research performance criteria and cultures (i.e., the mis-use of journal rankings as performance measures), which could catalyse and support wider changes in scholarly communication towards fairer and more sustainable models that encourage wider academic freedom and autonomy of researchers. Negotiating the criteria for career advancement that recognise Open Access and open scholarship at a national and institutional level will be important for incentivising a cultural shift towards one that aligns fairness, openness, and freedom among research communities.

2. **Intellectual property**: Academic staff must retain copyright to their works in order to help maintain its integrity, additional re-use, appropriate acknowledgement, and maximum dissemination. Models of copyright retention such as the ‘Harvard Model’ or UK’s Scholarly Communication License will be highly effective in achieving this and should be increasingly adopted in order to support author rights, while increasing the dissemination of scholarly works through self-archiving (also known as ‘green’ Open Access).

3. **Right to accessing knowledge**: Lengthy embargo periods, high subscription fees, and high article-processing charges (APCs) that Elsevier impose should be challenged, with a view to achieving their reduction and eventual elimination. A campaign to raise the awareness of the impact of Elsevier’s practices on scholarly communication should be conducted to activate researchers in this regard.

4. **Public money turned into private profits**: Where information is available on a national scale for licensing contracts between research institutes and publishers, investigate whether there is scope for national-level investigations of market functionality. Regarding APCs, there are several possible routes. The first is to encourage research funders to refuse
to pay APCs to Elsevier's hybrid journals, and ultimately to eradicate hybrid funding models altogether. The second, less impactful option would be for funders to refuse to pay APCs unless Elsevier implements an acceptable offsetting agreement mechanism. The third and most impactful option is to encourage funders to exclusively fund publication in pure-OA venues in order to help accelerate the transition to a full-OA ecosystem. Any cost savings associated with this should be fully reinvested into the scholarly research and communication ecosystem, including supporting library infrastructures and academic staff, and creating a more supportive work environment for them. This is also aligned with recent and ongoing developments in the EU around ‘Plan S’.

5. Democratic deficit and transparency: Identify areas where Elsevier are directly influencing public policy. Higher education and research unions should engage with relevant public officials in order to raise awareness and have the influence of Elsevier reduced or removed where necessary. Best practices in the handling of contracts should be developed, allowing the national and international academic communities to make informed and transparent decisions. Alongside this, research institutes need to gather and share usage data for Elsevier serials. These data can be used to strengthen individual negotiation positions (at the institutional and national levels), as well as justification for terminating ‘big deal’ subscription licenses to bundled Elsevier journals where appropriate.

6. Need to organise and form coalitions: In countries where negotiation consortia have not yet been established, these should be created to strengthen their position against Elsevier. Each coalition should be encouraged to adopt, and adhere to, the LIBER negotiation principles. Where consortia are already negotiating with Elsevier and other publishers, they should be supported by sharing the tactics of the German and Swedish consortia. To reduce the perception of risk associated with these negotiations failing (i.e., a ‘no deal’ scenario), infrastructure to ensure legal routes of access must be strengthened at different levels; for example, through using document sharing services like inter-library loan.

7. Alternatives to Elsevier and related commercial approaches: There is the chance for an effective co-ordination strategy to prevent usage of Elsevier’s intended workflow before it is fully integrated and provide more sustainable and open alternatives for researchers. The key here is to activate research institutes and libraries against subscribing to such services and workflows owned by Elsevier and raise awareness of community-owned alternatives. Further support should be provided to those who are seeking alternatives to Elsevier as a publisher for their journals.