The Power of Publishers, Data Tracking in Science, and the Responsibilities of Public Actors

VB verfassungsblog.de/threats-to-academic-freedom-under-the-guise-of-open-access/

Raffaela Kunz

This article belongs to the debate » Open / Closed
18 March 2022

Threats to Academic Freedom under the Guise of Open Access

The Budapest Open Access Initiative (BOAI) is celebrating its 20th anniversary and today it seems that we are closer than ever to finally concluding the "access revolution" predicted by many since the arrival of the internet. Yet, developments in the publishing system increasingly suggest that the access revolution is much less revolutionary than expected. Reports gradually bring to light the extent to which publishers started to use the data tracking tools developed by "pioneers" such as Google and Facebook (see e.g. this informative briefing paper under the umbrella of the DFG, the German Research Foundation). This development could not only be the final blow for the Open Access movement's potential to more radically and structurally change the way knowledge is being disseminated in the digital age – namely with a less prominent role played by commercial publishers. It furthermore means a systematic threat to the autonomy of the science system and academic freedom in the digital age.

Towards a "platformization" of science

But to begin with, what is being tracked, and why? The above-mentioned DFG paper provides a good overview of the data mining methods and tools used, such as page visit trackers, audience tools and fingerprinters. The goal is to aggregate and reuse or resale user traces. According to the DFG briefing paper (p. 6), the gathered data offer insights into entire research cycles. They are thus of economic value and a potential source of revenue when selling them to third parties. This refers primarily to private actors, but especially in the US, reports have revealed that data are also being sold to law enforcement authorities.

On the one hand, publishers use the data-based information to expand their services and tap into new business-fields. Similar to the music industry or cable TV, the publishing industry came under strong pressure with the advent of the internet and is still "undergoing a massive adaptation process". These developments are described in detail in the much-cited 2019 landscape analysis of the "Scholarly Publishing and Academic Resources Coalition"

(SPARC), commissioned in response to the “growing trend of commercial acquisition of critical infrastructure” and co-written by a market analyst with long experience in the academic publishing market. The report has been updated several times since.

While in early years it seemed obvious that digital tools would replace print publishing and minimize the role of traditional academic publishers, it is well-known that publishers successfully undertook an “economic re-interpretation” of Open Access by charging authors for publishing rather than readers for accessing content (so-called “article processing charges”, APCs). In order to further make up for losses in their core business and organize future growth strategies, the SPARC reports now show that publishers (with Elsevier having the lead) are shifting their business models from providing academic content to becoming encompassing knowledge platforms (see also the DFG paper). By way of example, the publisher Elsevier describes itself as a “global leader in information and analytics”, and Taylor & Francis portrays its services as “content and research platforms”. In other words, in the digital era, the academic publishers do not limit themselves anymore to the dissemination of research output in the form of journal articles and books, but rather started to offer services covering an increasing spectrum of the research (and educational) spectrum.

The services offered today thus cover research assessment systems, productivity tools, and online learning management systems (see the 2019 SPARC landscape analysis). Publishers are gradually moving into the governance of the university and research institutes more broadly. Elsevier’s “Pure” Research Management System for example, according to the self-description, “facilitates an evidence-based approach to your institutions’ research and collaboration strategies, assessment exercises and day-to-day business decisions”. One of the strategies of the publishers furthermore is to bundle different services and sell them in packages or “big deals” (see on this the 2020 update to the SPARC landscape analysis). Sometimes this comes under the guise of Open Access. An example that caused an outcry in the scholarly community was a contract concluded between a consortium of Dutch Universities with Elsevier (see here). While the deal foresees access to journals and Open Access publishing for the universities, in exchange it obliges the universities to license a large set of Elsevier’s data analytics products (including “Pure”). This is thus a new way (after big journal subscription deals) of selling unrelated services in packages, deals that are considered to be advantageous for publishers – and much less so for universities.

In addition, the big publishers are buying up small and innovative Open Access publishers, and a closer look reveals that other academic services such as the reference tools Mendeley, Scopus and the more recent Dimensions belong to them or their groups (see here).

Publishers are more powerful than ever

As a result, publishers render themselves increasingly “indispensable for the governance of academic institutions and universities” (DFG report, 6). The entire research and university infrastructure, the backbone of research and teaching, risks to fall into the hands of

commercial actors. Some already speak of an emerging "knowledge industry". What is more, this development also favors market concentration, the loss of diversity and the building of monopolies or quasi-monopolies (SPARC 2020 Update, 21). We might be witnessing at the moment the formation of a "supercontinent" in the supply of research.

The internet thus did not mean the end of commercial academic publishing – to the contrary, these actors seem to be more powerful than ever. At this point, it is important to recall that the Open Access movement initially did not only set out to make knowledge openly available and reusable, but also to fight the persistent price problem in the publishing system, better known as the "serials crisis". Journals mostly in the hands of a handful of powerful commercial publishers had become evermore expensive, to a point that many libraries and universities could not afford them anymore – despite the fact that the actual publication costs had shrunken due to the lower costs of digital publishing.

20 years after the BOAI, it is thus fair to say that the efforts of the Open Access movement to tame the power of the big publishers have not been successful. Important initiatives such as the project DEAL or PlanS explicitly accept (or, in the case of DEAL, even support) the fee-based Open Access business model of publishers. The potential of Open Access to truly change the course of the science system remains unfulfilled – and ever more unlikely to be achieved.

A systematic threat to academic freedom

This development also has far-reaching repercussions for the autonomy of the science system and academic freedom. On the one hand, data tracking may amount to infringements of the individual freedom of researchers. The DFG report warns that authoritarian regimes can use these tools to surveil their researchers under the guise of national security or public order, leading to self-censorship (see on academic surveillance in general the report of the UN special rapporteur on academic freedom at para. 48). As mentioned above, especially in the US there have been instances of publishers selling data to law enforcement authorities, equally with a possible chilling effect. Tracking can furthermore facilitate data misuse and commercial academic espionage.

Besides these individual consequences, there is a strong systemic risk to free and autonomous research as an *institution*. Academic freedom not only secures individual liberties, but, importantly, also requires states to create the conditions and circumstances in which these liberties can effectively be exercised. The rich case-law and scholarship on Art. 5(3) of the German basic law makes clear that behind the goal to protect the autonomy and the independent functioning of the science system stands the idea that under these circumstances knowledge can best advance. The German Constitutional Court has expressed in one of its landmark judgments (BVerfGE 47, 327 (370)) that "it is precisely a science freed from social utilitarianism and political expediency that best serves the state and society".

Science sociologists have long warned that the “economization” or “marketization” of science threatens the autonomy of the science system as a distinctive “value sphere” in a Weberian sense or an autonomous unit in the sense of functionalist differentiation theory. Indeed, some argue that for science “market fundamentalism is today more pressing than political totalitarianism (.)” (see here at 132). This threat is to be seen against the backdrop of the idea as famously expressed by Robert Merton that science should only be interested and motivated by the search for truth (rather than economic or personal gain; see the criterion of *disinterestedness* of science as one of the four famous CUDOS norms).

With the current “platformization” of the science infrastructure, the “marketization” of science and the influence of the economic sphere on science arguably reaches a new peak, fundamentally putting into question the ideal of disinterested science. The fact alone that nearly the entire digital science infrastructure could soon lie in the hands of a small group of commercial actors might arguably be problematic from this viewpoint. Yet, there are a number of very direct consequences and ways in which publishers may influence the course of science. Today these “companies can invisibly and strategically influence, and perhaps exert control, over key university decisions – ranging from student assessment to research integrity to financial planning (.)” (SPARC landscape analysis, the at p. 5).

To name some examples, the publisher Elsevier, based on the data at its disposal, might be in the position to predict the likelihood of success of individual researchers and, for example, can offer them editorial board positions. Similarly, it “could isolate in advance new trends in interdisciplinary studies, allowing it to establish publication forums where none exist today and even driving funding decisions which lead to accelerated growth for these types of research (.)” (at p. 15). The motivation is to gain competitive advantages. The fact that publishers now also offer tools to assess research has furthermore given rise to concerns regarding possible conflict of interests. The 2020 SPARC update warns that even unintentionally biased algorithms might favor research in journals from the same publisher (at p. 15). Another issue concerns the lack of transparency of algorithms as well as its combination with the increasing market concentration, which gives some actors huge amounts of power. In other words, “(o)ne Company (and one algorithm) may heavily influence decisions on which departments should grow in size and budget, which research projects should be funded, who should be promoted, etc.” (at p. 21).

A complex problem requiring solutions at different levels

All of this shows a worrying degree of influence academic publishers – private actors driven by economic incentives – today have on science. This fundamentally puts into question the autonomy of science from the economic sphere and the ideal of purpose-free science only interested in the search for truth.

While certain new “inventions” by publishers time and again cause outcries in the scholarly community, such as recently Taylor & Francis’ announcement of the possibility to pay for faster peer review (see here for a reaction), the much deeper lying structural privatization of the whole science infrastructure, and indeed the increasing power of private publishers, is often ignored. Even if one does not consider the influence of the economic sphere to fundamentally put into question the functioning of science, the question very much arises whether the science community wants to accept that central decisions are shaped and determined by commercial actors and technological infrastructure.

In light of this, the finding by the 2019 SPARC landscape analysis should ring the alarm bell, and initiatives such as the petition “Stop Tracking Science” hopefully only mark the beginning of a broader debate:

> “We are at a critical juncture where there is a pressing need for the academic community – individually and collectively – to make thoughtful and deliberate decisions about what and whom to support – and under what terms and conditions. These decisions will determine who ultimately controls the research and education process; and whether we meaningfully address inequities created by legacy players or simply recreate them in new ways.”

However, it would be wrong to assume that in the digital age, the main threats to academic freedom come from the private sphere. Rather, public actors are, at different levels, very much involved and at least co-determine the direction the development currently takes. It is public universities and libraries that conclude problematic contracts with private publishers, rendering them at least co-responsible for possible rights violations. A more indirect, yet structural involvement of the state concerns the managerial reform processes of the system of higher education ongoing in many countries, subjecting universities to quantitative performance pressure with the aim to make them more competitive against the backdrop of the belief that the key role of science in society is economic growth. While many of these debates originate in the US, they are also relevant for Europe (see e.g. here).

(Legal) solutions to these issues of course need to start where it is most urgent, namely with taming the concentrated power of big publishers via antitrust measures and possibly platform regulation legislation. Yet, these measures alone will not be enough without tackling the underlying issues. Researchers themselves prefer to publish with the big publishers – because in today’s competitive environment, they depend on the visibility that those provide more than others. In light of the important role as gatekeepers and curators of knowledge that publishers still have, it thus furthermore seems necessary to explore how meaningful alternatives can be established that will find acceptance in the scholarly community. Hopefully this will open up ways to return to an understanding of Open Access not as a business model, but to truly bring forward science.

EXPORT METADATA
Marc21 XMLMODSDublin CoreOAI PMH 2.0
SUGGESTED CITATION Kunz, Raffaela: *Threats to Academic Freedom under the Guise of Open Access: The Power of Publishers, Data Tracking in Science, and the Responsibilities of Public Actors, VerfBlog,* 2022/3/18, https://verfassungsblog.de/threats-to-academic-freedom-under-the-guise-of-open-access/, DOI: 10.17176/20220318-121307-0.

Explore posts related to this:

Other posts about this region:
World