How market forces influence editorial decisions

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There's a looming reckoning for how news is covered and reported in today's media environment and the parallels with the scientific publishing industry are striking. From the fetishization of newsmanship, the sensationalism of headlines, the obsession with access, the pursuit of scoops, to the institutional resistance to self-correction, these journalistic norms all have equivalents in science publishing. In this issue of *Cortex* Huber et al recount their experience in attempting to update the scientific record through an independent replication of a published study [1]. In general, publishers resist issuing retractions, refutations or corrections to their stories or papers for fear of losing public trust, diminishing their brand and possibly ceding their market share [2]. Unfortunately, this is just one way that market logic – retaining a competitive advantage among peers – explicitly or implicitly influences editorial priorities and decisions more broadly.

In the Showtime documentary “The Fourth Estate,” *The New York Times* Executive Editor Dean Baquet remarks that he tried to convince his newsroom “...you could think about how many people read a story, without selling your soul. That didn't mean you were chasing clicks,” [3]. The next scene cuts to discussions of increased quarterly earnings for *The Times* following the 2016 presidential election in the United States. The Editor's rationalization underscores the inherent tension for news media in giving their audience what they need versus what they want in order to remain competitive. There's the well-known tautology that news is what newsrooms decide to cover and what's “newsworthy” is influenced by market logic. That news organizations, charged with relating truth and facts, are subject to market-based decisions is a major source of contention among the discerning public. It should be even more contentious that the stewards of scientific knowledge, academic publishers, are also beholden to it.

There's little appreciation that ‘top’ journals compete for papers, researchers and even entire fields. The most prestigious journals aim to publish research of “outstanding scientific importance” and mass appeal [4], and these papers are a rare commodity. Although top journals are loathe to admit they ‘chase cites’ [5], market forces make this unavoidable. One example is a strategy akin to product cost cross subsidization such as when in journalism profitable traffic-driving, click-bait articles subsidize more costly and in-depth, long-form investigative reporting. In order to attract the ‘best’ science, top journals must maintain a competitive impact factor. If the impact factor strays too far from the nearest competitor, then the journal will have trouble publishing the science it deems as most important because of the worth coveted researchers place on perceived impact. Thus, papers that may be scientifically less substantive, but will garner more citations, are

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published in order to attract what are judged to be scientifically more valuable papers regardless of citation potential. A noble end by less than noble means.

Market forces also stem the tide of increasing calls for higher standards of rigor and reproducibility including the need for replications. Some journals from legacy publishers are making strides toward enhancing rigor through for example adopting registered reports or reporting checklists [6, 7]. Huber et al (2018) take this further and propose policy recommendations such as standardized cross-referencing for all replications including links from the original publishers. Although publishers tout the value of replications and pay lip service to other reformative practices, their policies in this regard are often vague and non-committal. They set high bars for publishing replication attempts and indicate that keeping track of them elsewhere are beyond their capabilities [8]. Most professional editors are committed to advancing strong science, but however well-intentioned and sought in good faith reforms are, they are necessarily hamstrung by market forces. This includes restrained requirements for more rigorous and responsible research conduct. Journals do not want to put in place policies that are seemingly so onerous that authors decide to instead publish in competing but less demanding journals. Researchers need incentives for and enforcement of more rigorous research practices, but they want easier paths to publication. The result is that new policies at top journals allow publishers to maintain a patina of progressiveness in the absence of real accountability.

The American novelist and culture critic George Saunders observed that we have surrendered information to those whose first priority is profit and that conveying the truth has been conceded to conveying “as much truth as you can, while still making money” [9]. Coupled with a professional ethos that values avoiding the appearance of bias over actual bias, this has created a set of toxic journalistic practices much to the public’s detriment [10]. Similarly, we have conceded the curation and dissemination of scientific knowledge to those for whom science will be their second priority and who value “important” results over rigorous process. This is unacceptable given that, unlike publishing news, publishing research is financially supported by the public off the backs of scientists and thus should serve the interests of science and society first. Professional editors are in the difficult position of balancing competing factors when making decisions, and while it may seem that the pursuit of profits is not one of them, it can confound all other factors in consideration. The reforms suggested by Huber et al are welcome short-term fixes, but the community should demand longer-term solutions that break up the monopoly of academic publishers and divorce the processes of evaluation, publication and curation [11]. Only then may we wrest the power of science’s stewardship from the heavy hand of the market.

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