# Does the business model for academic publishing promote scholarly progress? 



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## Focusing on Value - 102 Things Journal Publishers Do (2018 Update)

## Five Arguments

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- Peer Review Practices
- Publication Practices
- Effects on Societies
- Effects on Scholars


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## RESEARCH ARTICLE

## The Oligopoly of Academic Publishers in the Digital Era

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## Abstract

The consolidation of the scientific publishing industry has been the topic of much debate within and outside the scientific community, especially in relation to major publishers' high profit margins. However, the share of scientific output published in the journals of these major publishers, as well as its evolution over time and across various disciplines, has not yet been analyzed. This paper provides such analysis, based on 45 million documents indexed in the Web of Science over the period 1973-2013. It shows that in both natural and medical sciences (NMS) and social sciences and humanities (SSH), Reed-Elsevier, WileyBlackwell, Springer, and Taylor \& Francis increased their share of the published output, especially since the advent of the digital era (mid-1990s). Combined, the top five most prolific publishers account for more than $50 \%$ of all papers published in 2013. Disciplines of the social sciences have the highest level of concentration ( $70 \%$ of papers from the top five publishers), while the humanities have remained relatively independent ( $20 \%$ from top five publishers). NMS disciplines are in between, mainly because of the strength of their scientific societies, such as the ACS in chemistry or APS in physics. The paper also examines the migration of journals between small and big publishing houses and explores the effect of publisher change on citation impact. It concludes with a discussion on the economics of scholarly publishing.

Percentage of papers published by the five major publishers, by discipline of Social Sciences and Humanities, 1973-2013.


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A List of Academic Publishers and their Scholarly Journals: A Webscraping Approach

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| Rank | Publisher | Journal <br> Count |
| :--- | :--- | :--- |
| 1 | Springer | 3692 |
| 2 | Taylor \& Francis | 2909 |
| 3 | Elsevier | 2467 |
| 4 | Wiley | 1646 |
| 5 | SAGE | 1310 |
| 6 | De Gruyter | 1100 |
| 7 | OMICS | 742 |
| 8 | Oxford University Press | 483 |
| 9 | Inderscience | 470 |
| 10 | Cambridge University Press | 414 |
| 11 | Medknow | 399 |
| 12 | Emerald | 375 |
| 13 | Wolters Kluwer | 351 |
| 14 | BioMedCentral | 316 |
| 15 | MDPI | 309 |
| 16 | Brill | 250 |
| 17 | SCIRP | 247 |
| 18 | Philosophy Documentation Center | 238 |
| 19 | IGI Global Publishing | 231 |
| 20 | Thieme | 230 |
|  |  |  |

Tue 27 Jun 201701.00 EDT

## Is the staggeringly profitable husiness of scientific publishing bad

(1) - RELX, the parent company of Elsevier, had revenues of US $\$ 9.8$ billion in 2019. (Elsevier's profits account for about 34\% of RELX's total

- RELX reports its profit margins at 31.3\% for 2018.

| 2020 financial performance | Hent |  |
| :---: | :---: | :---: |
|  | 2020 | 2019 |
|  | ¢m | ¢m |
| Revenue | 2,692 | 2,637 |
| Adjusted operating profit | 1,021 | 982 |

the recording and the film indurtries in size, but it is far more profitable. In
2010, Elsevier's scientific publishing arm reported profits of $£ 724 \mathrm{~m}$ on just
over $£ 2 b n$ in revenue. It was a $36 \%$ margin - higher than Apple, Google, or Amazon posted that year.

## Five Arguments



- Staggeringly

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\begin{aligned}
& \longrightarrow-\text { LABOR EXPLITATION } \\
& \longrightarrow-\text { SUBMSSONVOLLME } \\
& \longrightarrow-\text { SIFEIMOVAION }
\end{aligned}
$$

- Publication Practices
- Effects on Sociecies
- Effects on Scholars
Publishing more than reviewing?

Some ethical musings on the
sustainability of the peer review
process

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## Abstract

Based on our editorial experience, and acknowledging the regular editor grievances about reviewer disengagement at professional meeting and conferences, in this article we argue that the review system is in need of significant repair. We argue that this has emerged because an audit culture in academia and individual incentives (like reduced teaching loads or publication bonuses) have eroded the willingness of individuals to engage in the collective enterprise of peer-reviewing each others' work on a quid pro quo basis. In response to this, we emphasise why it is unethical for potential reviewers to disengage from the review process, and outline the implications for our profession if colleagues publish more than they review. Designed as a political intervention in response to reviewer disengagement, we aim to 'politicise' the review process and its consequences for the sustainability of the scholarly community. We propose three pathways towards greater reviewer engagement: (i) senior scholars setting the right kind of 'reviewer' example; (ii) journals introducing recognition awards to foster a healthy reviewer progression path and (iii) universities and accreditation bodies moving to explicitly recognise reviewing in workload models and evaluations. While all three proposals have merit, the latter point is especially powerful in fostering reviewer engagement as it aligns individual and institutional goals in 'measurable' ways. In this way, ironically, the audit culture can be subverted to address the imbalance between individual and collective goals.

## Five Arguments

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Sword swallowing and its side effects
Brian Witcombe, Dan Meyer

Sword swallowers know their occupation is dangerous.
The Sword Swallowers' Association International (SSAL, wwwswordswalloworg) recognises those who
can swallow a non-retractable, solid steel blade at least two centimetres wide and 38 centimetres long. As we two centimetres wide and 38 centimetres long. As we
found only two English language case reports of injury resulting from sword swallowing, ${ }^{12}$ we explored the
technique and side effects of this unusual practice. technique and side effects of this unusual practice.

Methods
We sent a letter to members and contacts of the associa-
tion asking if they were willing for data held in its tion asking if they were willing for data held in its
archives to be published and asking how they learnt the archives to be published and asking how they learnt the
technique and how many swords they had swallowed in the previous three months We did not send out a medical questionnaire but invited swallowers to describe any medical problems associated with sword swallowing. One medical adviser was approached after one
swallower, injured during the course of the study, gave her consent, and a few close associates of one of the authors (DM) answered direct medical questions. We
obbined written consent from obtained written consent from everyone whose history
is mentioned. We excluded cases in which injury was is mentioned We excluded cases in which injury was
related to swallowing items other than swords such as glass, neon tubes, spear guns, or jack hammers.

Results
We sent leters to 110 members or contacts of the asso-
detion in 16 countric; 48 responded and 46 (41.8\%)
cation in 16 countrics; 48 responded and 46 ( $41.8 \%_{0}$ )
consented to information being published ( 40 were men). The average age was 31 (range 16-64). Most wer The average age when hey learnt sword the techinique The average age when they learnt sword swallowing was
25 (range $13-46$ ); nine learnt as teenagers The average height was 176 cm (range $58-191 \mathrm{~cm}$ ), average weight 79 kg (range $46-127 \mathrm{~kg}$ ) and the longest sword swallowed was on average 60 cm (range $43-79 \mathrm{~cm}$ ). There was no apparent correlation between the length of the longest
sword each person could swallow and their height (corsword each person could swallow and their height (cor-
relation coefficient 0.20 ) or weight ( $(0.08)$. Twenty five elation coecticient 0.20 ) or weight ( -0.08 ). Twenty five
had swallowed more than one sword at a time, five had swallowed more than 10 at a time, and one had swallowed 16 swords together (fig 1). Over the previous three months, the average number of swords swallowed
was 43 (range of $0-300$ ) was 43 (range of $0-300$ ).
Thirteen respondents did not voluntecr any mediwhen they were learning to swallow, after performing too frequently, or when they were swallowing multiple or odd shaped swords Lower chest pain, often lasting
days, followed some performances and was usull days, followed some performances and was usually
reated by abstaining from practice They racly souly Ireated by abstaining from practice. They rarely sough
medical advice. Six suffered perforation of the pharymu or oesophagus. Three of these had surgery to the neck, or oesophagus. Three of these had surgery to the neck,
one having a 1.5 cm laceration at the level of D2 and a pneumothorax, one a pinhole laceration at C6 and surgical emphysema, and the other having a pharyngeal tear. The perforations were treated conservatively
in three patients, one of whom thad a second

When we see paintings by Picasso and Mo net, we can with some accuracy recognize whic is Picasso's and which is Monet's, even if we have never seen the particular paintings before. There are many possible cues for this discrimination, such as color, style of brushing, avorite subjects, and so on, but no single feaure differentiates each artist. It is also clea hat we have acquired such visual concepts of paintings of Picasso and Monet by experience. Can pigeons discriminate paintings of one art ist from those of another artist? If they can do they also show generalization to painting of other artists belonging to the same group, such as an impressionist or a cubist? Porte and Neuringer (1984) reported successful earning of musical discrimination of Bach and travinsky by pigeons. Can pigeons discriminate visual arts also?
Birds have excellent visual ability compa able to that of humans, and there have been many experimental studies showing acquisi on of visual concepts in birds. Since Herrn tein and Loveland (1964) successfully trained pigeons to respond to color slides on which human being appeared and not to respond to those without a human, there have been many studies demonstrating learning to discriminate natural concepts (e.g., Cerella, 1979; Herrn
stein \& de Villiers, 1980; Herrnstein, Loveland, \& Cable, 1976; Roberts \& Mazmanian, 1988; Watanabe, Yamasita, \& Wakita, 1993), artificial concepts (Bhatt, Wasserman, Reynolds, \& Knauss, 1988; Watanabe, 1991), and symmetry of objects (Delius \& Habers, 1978).

Most of these natural-concept experiments used a slide projector as the stimulus-presentation device, and pigeons showed transfer of discrimination of photographs to real objects and of real objects to photographs (Watanabe, 1993). Representational paintings have features similar to photographs, but paintings patterned after impressionism are not precise reflections of the real world. They often are considered to be a refiection of the artist's subjective world. We can, however, identify "objects" in the paintings by Monet, Renoir, and Cezanne. In other words, we find a relation between these paintings and real objects. However, such a relation is often weak in the paintings by Picasso, Matisse, and Braque. Realism is relevant only for a perceiver who can see a painting as a representation of a three-dimensional world. If realism makes a difference to a pigeon, we can presume that it can see a painting as a representation of a three-dimensional world.


## Five Arguments

- Staggeringly

- Peer Review Practices
- Publication Practices
- Effects on Societies



# Does the business model for academic publishing promote scholarly progress? 



No, not sufficiently.

# Does the business model for academic publishing sustain scholarly incrementalism? 



Youbetcha.
THANS

