What Cost to "Buy" Academic Accomplishments?

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In 2008, the National Institutes of Health implemented a policy stating that "all investigators funded by the NIH submit . . . an electronic version of their final, peer-reviewed manuscripts . . . to be made publicly available." [1] Since that time, there has been an explosion of "open access" (OA) journals, about half of which require the author to pay a publishing or page fee or article processing charge, usually ranging from $1000 per article to $1000 per page. Such journals often boast rapid turnaround, with "peer review" in 7-10 days and publication within months. For comparison, the Journal of Pediatric Orthopaedics takes 2-3 months for peer review, and often 8-10 months for actual publication.

Does this make it possible for a person of means to "buy" academic prestige and a long curriculum vita? Does this exclude excellent non-funded studies from publication? Do article processing fees exclude authors from developing countries or less well-funded research facilities and universities?

Advantages to the OA model include lower costs to libraries and free access to scientific journals for medical professionals and patients, especially those in developing countries. A major disadvantage is potential damage to the peer-review system: the medical community carries out peer review for free, yet publishers gain billions of dollars for physicians to read the final product. Given that income is dependent on the number of papers an OA journal publishes, an impetus to accept substandard articles exists.

A graduate student at Cornell University produced a paper using software that generates grammatically correct but nonsensical text and submitted it to an OA journal under pseudonym. He decided to submit the fake after receiving several unsolicited invitations by email to submit under the "author-pays-for-publication" model. He wanted to test if the publisher would "accept a completely nonsensical manuscript if the authors were willing to pay." The article was accepted for publication.[2] This "experiment" has been repeated with similar outcome, although critics cite "lack of control group."

New OA journals generally lack the reputation of subscription journals. However, Bjork and Solomon studied OA publishing compared to subscription journals, using average number of citation as a proxy for impact factor. They concluded that "OA journals indexed in Web of Science and/or Scopus are approaching the same scientific impact and quality as subscription journals, particularly in biomedicine and for journals funded by article processing charges." [3] Does this suggest quality in OA publishing, or simply ease of citation given that Google and other search engines supply "data" regardless of validity or accuracy?

Established subscription journals are also reacting to the financial crunch of publishing: the Journal of Bone and Joint Surgery has established a $250 fee, not for publication, but for merely reviewing a manuscript submitted to the journal.

The European Union sponsored "Study of Open Access Publishing" surveyed 50,000 researchers regarding their thoughts on OA publishing. Eighty nine percent of respondents felt that OA was helpful to their field, and 53% said they had published at least one OA manuscript. But 40% felt that author fees were a deterrent, and 30% felt that high-quality open access journals in their field were limited.[4]

The "open access" fee-for-publication model is undoubtedly here to stay. No fewer than 5 to 10 emails daily solicit manuscripts for such journals. Given that academic medicine has always placed a premium on publication, will "deep pockets" be the new guarantee to academic success?

1. NIH Public Access Policy Details. National Institutes of Health Web site. http://publicaccess.nih.gov/policy.htm. Accessed February 25, 2014.

2. Gilbert N. Computer-generated manuscript accepted for publication in open-access journal. *Nature*.

3. Bjork B, Solomon D. Open access versus subscription journals: a comparison of scientific impact. *BMC Medicine*. 2012;10(73).

4. Vogel G. Quandary: Scientists prefer reading over publishing "Open Access" papers. *Science Insider*. January 2011.