

Open access journals reaching the same scientific impact as subscription journals

July 16 2012

BioMed Central's open access journal *BMC Medicine* adds scientific rigour to the debate about open access research, by publishing an article which compares the scientific impact of open access with traditional subscription publishing and has found that both of these publishing business models produce high quality peer reviewed articles.

The debate about who should pay for scientific publishing is of continuing importance to the scientific community but also to the general public who not only often pay for the research through charitable contributions, their taxes, and by buying products, but are also affected by the results contained within these articles.

Many publically funded agencies, such as the Wellcome Trust and NIH require that scientific research sponsored by them is made freely available to the public. However the issues aren't as simple as just putting the results of your research on line. Scientific research goes through the [quality control](#) filter of [peer review](#) and journals act as gatekeepers performing quality-assuring peer review, and who provide web-based repositories. Scientists currently rely on publishing in peer reviewed high quality journals to show that their research itself is of good quality, is of importance to their field of research, and consequently improves their chances of obtaining funding to continue their work.

One way of measuring quality is by impact factors calculated from [citation data](#) (how many times other scientists have mentioned the

research). Bo-Christer Björk from Hanken School of Economics, Helsinki, and David Solomon from Michigan State University compared the impact factors of 610 [open access](#) journals and over 7000 subscription journals.

The citation rate for subscription journals was overall 30% higher than for open access ones but this difference was largely due to a high share of older OA journals, particularly from regions like Latin America in the citation indexes. When like was compared with like, for instance, journals founded after 2000 from difference regions or disciplines, the differences disappeared.

Bo-Christer Björk, explained, The open access debate has included accusations from some traditional publishers and their lobbyists that Open Access publishing implies low scientific quality and endangers the quality assurance function of the peer review system that the academic community and publishers have built up over decades."

Explaining the results Prof Björk said, "If you take into account the [journal](#) discipline, location of publisher and age of publication the differences in impact between open access and subscription journals largely disappear. In medicine and health, open access journals founded in the last 10 years are receiving on average as many citations as subscription journals launched during the same time."

David Solomon continued, "It is easy to see why scientists might be sceptical of electronic, open access journals – after all they have their reputation to maintain. Open access journals that fund publishing with article processing charges (APCs), sometimes called gold open access, are on average cited more than other OA journals. Since the launch of professionally run high quality biomedical journals in 2000 gold OA has increased by 30% per year and many of these are on a par with their subscription counterparts."

More information: Open access versus subscription journals: a comparison of scientific impact Bo-Christer Björk and David Solomon *BMC Medicine* (in press)

Provided by BioMed Central

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