

What Scientists and those who fund their Research expect from Scientific Publishers

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Scientific Publishers' Role in the Science System

- : What scientists discover does not become knowledge until they share it
The universal scientific knowledge base is created by a division of labor between researchers, those who fund them and those who spread research results
- : A central source of scientific publishers' income is public money for research and education
Which of the new business models combine rapid and wide dissemination of validated results with a fair compensation for those who make the system work?
- : Scientific publishers have a significant impact on the research system

Scientific Publishers' Responsibility towards the Researchers and the Public

From *Nature's* reflections on the past and look to the future on the occasion of *Nature's* 140's birthday on 5 November 2009:

“.....The responses of the community and the citations generally seem to have validated our judgements [on the selection of papers]. But others sometimes put more weight on our judgement that it can justifiably bear. Large grants, philanthropic donations and personal chairs have been awarded on the strength of a paper in Nature - in effect, using editors' decisions as a surrogate for independent judgement. This is an abdication of the decision-makers' responsibility, and is a pitfall to be avoided.....”

Impact of Publications

Funding organisation, juries and appointment committees rely on scientific publishers

Number of publications, impact and other bibliometric factors are often (mis)used:

- : as a central criterion when selecting individuals for positions, promotions, awards or fellowships
- : when deciding over third party funding of an individual or a research group
- : when allocating internal research funds in a given institution,
- : when deciding over additional salary (i.e. by default in China)

New tools support this usage

How to deal with this Responsibility

Rigorous Quality Control

- : Transparent, thorough and independent science based review procedure
 - information on the selection procedure
 - editors have a sound background in all areas covered by the journal
 - scientists can follow the process online
- : Offering and development of fraud averse services
- : Peer review of peer review
- : Contribution to the funding organizations' efforts to find better tools for evaluating research

Why Quality Assessment and what else is needed?

- : The ever-increasing volume of published scientific research is a serious challenge to all scientists.
- : The individual scientific reader is reduced to reading an ever-smaller segment of published results and to relying on meetings, conferences, selective perusal of the arXiv, and the “grapevine.”
- : Research should not be inhibited from its natural evolution.
 - ⇒ the scientific publishing enterprise must work to deal with the expansion and evolution of scientific information.

Requirements on (new) Business Models for all who participate in the Knowledge Sharing Process

Scientists want

- : to publish and be read and cited by more scientists,
- : but at the same time, they want to read as little as possible, and get all the relevant information for their given research task

Requirements on the model

- : Provide a reliable filter for high quality of research results
- : Enable efficient selection of topical information
- : Provide global free access to scientific information
- : Long term preservation of data
- : Provide easy access for data mining
- : IPR remains with the researcher and those who funded them

What Scientists and those who fund their Research expect from Scientific Publishers:

Summary:

1. Recognition of the responsibility towards the researchers and the public
2. Rigorous quality control of scientific papers
3. Development and application of fraud averse instruments
4. Participation in the scientific community's effort towards better instruments for quality assessment
5. Providing easy navigation through large amounts of data
6. Open access to make best use of the global brain-pool
7. Fair business-models for scientific knowledge sharing