

Two Worlds: About Bars and Stars in Scientific Information Publishing, An Analysis of Open Source Ideology As a Means of Self-controlled Publishing

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Scientific publishing has become very profitable for several publishing companies. Information in our age has become a first rate economic asset. Another consequence is that smaller publishing companies have gradually been taken over by bigger ones. Ergo there is less competition and more concentration of economic power in the publishing sector. At the same time it has become more important for the mammoths of the publishing industry to protect these interests and give it a sturdy legal basis. This approach has triggered significant changes in intellectual property laws on a global scale. Global diversity of intellectual property became a global standard because economic powers wanted to control distribution channels to reach customers.

This development did not benefit large groups of authors in general. Especially those authors who had and still have contractually obligations to the bigger publishing companies cannot make their scientific information accessible to the larger public. The simple reason for this is that the price for consumers - like libraries - has become too high. Furthermore that authors have transferred their rights to the publisher. This has resulted in a Catch 22 situation: "you-can-check-out-any-time-you-like but-you never can leave".

In less poetic words: this "for profit" approach has caused an access crisis in scientific information because the ideological and legal basis of the scientific information chain has been disturbed. This article reviews this situation and analyses the viability of present efforts for publishing scientific information (including grey literature) via other kinds of publishing modes based on "open source ideology".

This approach benefits authors of scientific information in general, but especially the authors of grey literature because of the public nature of this type of information. An open source approach counterweights the present economic policies of big publishing houses. The sharing of knowledge is the primary goal based on public interest. Secondly the problem of public access is guaranteed and thirdly the author(s) have more self-determination. They have more control of their situation.

Introduction

The UK House of Commons Select Committee on Science and Technology published a report on science and technology on the 7th July this year¹. In this report the committee stated "there is a mounting concern that the financial benefits from the Governments substantial investment in research is being diverted to an excessive degree into the pockets of publishers shareholders". Ian Gibson, the committee's chairman, even accused commercial publishers even of "ripping off the academic community".²

This statement characterizes for a large part the feelings that exist today about publishers in the intellectual public domain established by the activities of the scientific community. This domain can be considered as a global information pool with two sides fighting for a larger share of the knowledge pool.

The development of new digital technologies opened new ways of distributing and exploiting information. Scientific information became a mining area for commercial publishers: an "intellectual land-grab" was the result. A battleground for the involved scientists and publishers, especially the commercial publishers in the scientific, technical and medical fields.³

The actual setting resembles a Prisoners Dilemma game⁴: "Two men look out the same prison bars; one sees mud and the other stars".⁵ The first player represents the research community for the greater part dissatisfied with the practices of the scientific publishing industry due to control of intellectual property rights and consequential restrictions on the free circulation of scientific knowledge.

The other player represents the publishing industry, trying to exploit the same resource at a maximum profit for his own benefit.

Game theory

Each player is without concern for the well being of the other player. This doesn't lead to an optimum solution. According to the principles of game theory the best strategy for a given player is often one that increases the payoff to one's partner as well. It has also been shown that there is no single "best" strategy; how to maximize one's own payoff depends on the strategy adopted by one's partner. Only by

¹ UK Science and Technology Committee, Tenth Report, Scientific Publications: Free for all?, dd. July 7th 2004; HC 399-I, HC 399-II, source: <http://www.parliament.the-stationery-office.co.uk/pa/cm/cmsctech.htm>

² The Times (London), August 6, 2004.

³ The humanities and social sciences are not considered here.

⁴ A good introduction to Prisoners' Dilemma, including studies of strategies and discussion of the game's significance is Robert Axelrod's **The Evolution of Cooperation** (Basic Books, NY, 1984).

⁵ The Oxford Dictionary of Quotations is the source of this quotation by Frederick Landbridge (1843-1923) from his book, A Cluster of Quiet Thoughts, Religious Tract Society, 1896.