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The Rightness of Copyright

Floyd E. Bloom

Several recent noteworthy events predict new directions for scholarly publishing in print and electronic forms. Elsewhere in this issue, Bachrach *et al.* (p. 1458), writing for the American Academy of Arts and Sciences' Working Group on "Transition from Paper," propose that authors funded by the U.S. government should no longer relinquish their copyright to publishers. In their view, retention of the copyright by the authors would benefit scientific progress for the public good by permitting scientists to "rapidly distribute, read, and respond to new results" through the electronic channels of the Internet. According to the working group, publications (such as *Science*) that now require authors to assign them copyright as a condition of acceptance would instead be offered a broad-ranging, nonexclusive license to use the work.

Proposals to deny publishers authors' copyrights have been advanced before. The battle is cast as being between allegedly profit-seeking publishers and the exploited scientists, who only want to share their discoveries widely and promptly and who view publishers' peer-review systems as rigidly exclusionary. The working group's plan is modest. To the degree that it would allow professional publishers to compete for authors and readers on the basis of the value-added features they can create, it merits scrutiny. However, copyright transfer is critical to the process of communicating scientific information accurately. Neither the public nor the scientific community benefits from the potentially no-holds-barred electronic dissemination capability provided by today's Internet tools. Much information on the Internet may be free, but quality information worthy of appreciation requires more effort than most scientists could muster, even if able.

The scientific enterprise requires professionalism in publication, whether it is print, electronic, or whatever may come next. The U.S. government shares this view. In late July 1998, the Committee on Commerce of the House of Representatives passed the Digital Millennium Copyright Act of 1998 (H.R. 2281). Placing special emphasis on the concerns of the information consumer, this act would strengthen "fair use" access to information and copyrighted works. According to the legislative alert issued by the Association of Research Libraries (<http://arl.cni.org/info/frn/copy/wipo-upd2.html>), the library and education communities have agreed not to oppose the act. H.R. 2281 will ensure that fair-use provisions (copying copyrighted materials for purposes "such as criticism, comment, and teaching" that include multiple copies for classroom use, scholarship, or research by the not-for-profit user) will now be extended to the digital realm. If so, then arguments that the assignment of copyright to publishers, be they commercial or society-owned, is detrimental to the scholarly goals of scientific exchange lose some force.

Authors weigh many factors when they choose the journals to which they wish to send their scientific communications. Their final choices may include the size of their likely readership, the quality and timeliness of review, the distinction that the scientific community attributes to papers in the journal, and the support contributed to the society that owns it. A paper submitted to *Science* will undergo extensive review and, upon acceptance, extensive revision for clarity, accuracy, and solidity. A paper published in *Science* will be seen throughout the world by our 160,000 paid subscribers and perhaps two or three times more readers as issues are shared. More than 30,000 readers will be alerted to the new reports within hours of the appearance each week of *Science* Online. Selected papers will be further explained to the scientifically interested public in the context of prior work in *Science* or other journals. Papers printed or distributed digitally by *Science* will be maintained by *Science*, and corrections, if required, will be announced promptly.

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