

A market-driven transition to immediate free Web access to journals and the potential role of PubMed Central

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Summary: PubMed Central can hasten the transition to immediate free Web access to journals in the life sciences by allowing publishers to post partial current issues. The Entomological Society of America is ready to utilize PMC for this purpose should it be authorized.

Publishers selling, and authors buying, immediate free Web access (“IFWA”) to refereed articles can lead to a system of journal publication that provides more convenient access at substantially lower cost. In the current system of financing journal publication, researchers and their supporting institutions pay for subscriptions; in the new system, researchers and their supporting institutions would pay publication charges.

For this transition to occur, authors and their supporting institutions must be willing to pay for IFWA. This might seem a major obstacle. However, most authors currently buy at least 100 paper reprints, and a publisher can post an article on the Web for much less than the cost of producing 100 paper reprints. Thus selling authors IFWA (a.k.a. “unlimited electronic reprints”) for the price of 100 paper reprints is significantly more profitable than selling them 100 paper reprints. Authors buying IFWA could forego buying paper reprints, because most journal readers can access and print electronic reprints at their desks, and those who can’t will surely have a friend or colleague who can. Authors would benefit from buying IFWA in lieu of paper reprints, and publishers would profit more from sales of IFWA than from sales of paper reprints.

When IFWA sales become great enough to encourage subscription cancellations, the price of IFWA can be increased to compensate for declining subscription revenues. Then, unless sales of IFWA decline (because authors no longer think it is worth the cost), the path to the new system will be clear.

Here are two reasons to believe that authors and their sponsors will think IFWA worth the cost:

- (1) *Literature indexes.* Indexes such as *Current Contents* and *Biological Abstracts* now have online versions. Users of online indexes benefit from immediate access to the full text of their hits. Producers of online indexes will compete to add value to their products by including links to full text whenever possible. Therefore, IFWA articles will become immediately accessible from online indexes. Non-IFWA articles (=those with restricted access) will not be linked or the links will work only for those who are qualified by having subscriptions or by belonging to an institution that has a site license.
- (2) *Reference links.* More and more journals are establishing online versions and adding value to their articles by linking to the abstracts or full text of Reference Cited entries. Those reading an article will value immediate access to the full text of works that are cited by it. Only those works that are freely accessible or for which the publisher has special access can be so linked. Thus those authors whose articles are *freely* Web accessible will especially benefit from increased employment of reference links.

Researchers will increasingly want anyone reading an online article or using an online literature index to have immediate access to their current articles. The governing bodies of scientific societies will be in an untenable position if they refuse to offer their authors the opportunity to pay a fair price for IFWA. And if journals published by scientific societies offer IFWA, commercial journals will eventually have to offer it too.

All publishers that offer IFWA will initially profit from it. They can continue to profit from it by raising its price to compensate for subscription losses. As the costs of publication are increasingly supported by sales of IFWA, scientific societies and commercial publishers will compete on more even terms, because immodestly priced institutional subscriptions will no longer support the one at the expense of the other.

PubMed Central can facilitate this market-driven transition to IFWA by agreeing to post some articles in an issue without simultaneously posting all other articles in the issue. [PMC should perhaps specify that publishers who post partial current issues must post the remaining articles in those issues within two years.] Both publishers and authors will benefit from PMC participating in this manner. Authors will benefit because online literature indexes will be sure to link to IFWA articles on PMC, because online articles will be more likely to reference-link to PMC-posted articles, and because life-science researchers looking for articles on the Web will surely include PMC in their searches. Publishers will benefit because they will not need to pay for posting IFWA articles and because their authors will value PMC-implemented IFWA above all other IFWA and thus may be willing to pay a higher price for it.

The actions of the Governing Board of the Entomological Society of America (ESA) suggest that researchers and their societies are ready to support this market-driven transition: In June 1999, the Board voted to offer authors in ESA's four principal journals² unlimited electronic reprints (=IFWA) for a price *less* than that of 100 paper reprints. In December 1999, it set that price as 75% of the price of 100 paper reprints. At the same time it voted to investigate putting ESA's electronic reprints on PMC and putting all articles on PMC two years after publication³.

A possible downside to PMC allowing publishers to post less than whole issues is that *users of PMC may be unhappy if they find free access to only some of the articles in the table of contents of an issue and will blame PMC for the restricted-access articles, rather than the authors who failed to pay for IFWA*. Here are two ways PMC could forestall that eventuality: (1) In tables of contents posted on PMC, list only IFWA articles. For "other articles," link to the TOCs on the publishers' servers. There users of PMC will learn that the publishers and their authors, rather than PMC, are responsible for the restricted access. (2) Provide links to publisher-posted abstracts of non-IFWA articles. [Perhaps those clicking on non-IFWA articles should first be linked to a Web page that explains that only abstracts of these articles are freely accessible because neither the authors nor their institution elected to pay for immediate free Web access. Further, the page might note that the publisher had agreed to provide free Web access to all articles no more than 2 years after initial publication.]

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²*Journal of Medical Entomology*, *Journal of Economic Entomology*, *Annals of the Entomological Society of America*, and *Environmental Entomology*.

³The two motions and the votes were as follows:

Moved that ESA staff determine the cost of putting ESA's e-reprints on PubMed Central. If the cost is negligible, ESA should post all its e-reprints there. If posting on PubMed Central involves significant additional costs, authors desiring such posting should be assessed an appropriate surcharge over the cost of "regular" e-reprints.

Yes 12 No 0

Moved that ESA staff investigate the means and costs of making back issues, two years or older, of ESA journals freely web accessible and report its findings to the President's special publication committee by Feb. 1, 2000. Based on these findings the committee may opt to spend all or part of \$3,000 for a pilot test of making back issues freely web accessible. [The \$3,000 has been offered for this purpose by anonymous donors.] Options to be investigated should include (1) posting on PubMed Central, (2) posting on a library's web server (e.g., that of the Florida Center for Library Automation), and (3) posting on Cadmus Journal Service's server.

Yes 14 No 0