

PLoS

PUBLIC LIBRARY of SCIENCE

Committed to making the world's scientific and medical literature a public resource.

www.plos.org

The Public Library of Science

The Public Library of Science [PLoS] is a non-profit organization of scientists committed to making the world's scientific and medical literature a public resource.

PLoS practices and promotes open-access publishing, capitalizing on the efficiency and cost-effectiveness of digital technology to remove barriers from the dissemination of scientific information.

A comprehensive database of scientific literature can and should exist. To that end, we are working to establish freely-accessible online archives of the complete contents of every published scientific and medical article, in order to:

- Increase the utility of scientific knowledge by making research results available to any scientist, health professional, student, patient, or other interested user with a connection to the Internet, anywhere in the world;
- Inspire innovations in research, medicine, and education by making it possible to search—in one information space and at no charge—the full text of every published scientific article;
- Catalyze the development of new tools to access and mine a comprehensive electronic archive of scientific and medical literature.



Science is a public good



The United States government alone spends more than \$57 billion annually on scientific research—approximately \$200 per citizen. Yet the vast majority of the articles reporting the results of this valuable investment is locked in disparate archives that require subscriptions for access.



To ensure the greatest return on their own investments in science, the Howard Hughes Medical Institute and the Wellcome Trust—the largest private funders of biomedical research in the US and the UK—endorse open access and subsidize the cost of open-access publishing for their investigators.



The price of subscriptions to scientific journals and their electronic archives has escalated at a rate far higher than inflation for more than a decade. As a result, many libraries are increasingly unable to provide access to the entire body of relevant literature to their affiliated researchers—let alone to the public.



For scientists and other users who do have access to the relevant literature, searching countless separate archives with the limited mining tools that each one provides is needlessly inefficient.



Open access accelerates scientific and medical discoveries. The widespread availability of the Human Genome Project data has enabled scientists to turn a collection of individual sequences into an incomparably richer resource. The global response to the SARS epidemic demonstrated that sharing scientific knowledge can catalyze the translation of research into application and save lives.

What does PLoS do to promote open access?

- We publish high-quality open-access journals (including the flagship *PLoS Biology*), make them freely available on our Web site, and deposit their complete contents in open-access archives such as PubMed Central.
- We partner with societies, publishers, and other organizations with an interest in open access.
- We advocate for open-access publishing from the grassroots level to the highest tiers of government.

What should your organization do?

- Science funders should treat dissemination as the final stage of research by explicitly underwriting open-access publication fees.
- Institutions and libraries should support openaccess journals financially and provide incentives for researchers to publish with open-access licenses.
- Scholarly societies should convert their journals to open access in order to maximize the impact of their members' work.
- Industry should sponsor open-access journals and develop tools for full-text searching to make research more efficient.
- The public should continue to demand access to the valuable research that it funds.



"Why is it, a growing number of people are asking, that anyone can download medical nonsense from the Web for free, but citizens must pay to see the results of carefully conducted biomedical research that was financed by their taxes? The Public Library of Science aims to change that."

— Washington Post front page, 5 August 2003

"The astronomical costs of many scientific journals have led a growing number of universities to reduce the number they subscribe to, leaving their researchers without access, and has put them out of reach of scientists at cash-strapped institutions and in developing countries."

— Wall Street Journal, 27 June 2003

"[O]rdinary citizens have for decades enjoyed free access to the latest scientific and medical literature, so long as they could make their way to a state-funded university library. That is rapidly changing as public research libraries, squeezed between state budget cuts and a decade of rampant inflation in journal prices, drop... journals in droves."

— Scientific American, 8 September 2003

"In the highly lucrative world of cutting-edge scientific research, it [the Public Library of Science] is nothing short of a revolution."

— The Guardian, 6 October 2003

"Imagine... that you have just been diagnosed with a lifethreatening illness, and want to find out about the latest advances in treatment. A search of the Medline literature database throws up hundreds of pertinent research papers. But unless you have subscriptions to the journals in question, or rack up your credit-card bill to download individual articles, many of the full texts will remain out of bounds—even though your taxes helped to pay for much of the research."

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