



## PubMed Central, BioMed Central, BL Direct

Three digital document delivery services are the picks and pans in this issue. They cover the spectrum from excellent to disappointing. PubMed Central (PMC) represents the zenith, offering free search and open access to the full text of more than half a million scholarly articles in medicine and other life sciences (as well as a good collection of medical library and information science literature). The other pick is the BioMed Central (BMC) service, which has a much smaller (but very promising) open access collection of full-text articles in biomedicine.

The pan is the British Library's new BL Direct service. It looks to me more like the Old Bailey Courthouse than an esteemed national library, despite the PR communiqués that sprang up when BL Direct launched belatedly in 2005, and those PRs that followed in 2006 when Google Scholar added a link to it as an article delivery option. Never mind that more than a cool million top-notch life science articles are open access for anyone, anywhere, through my two current picks and an earlier pick, HighWire Press. On second thought, do mind it—unless you enjoy burning money for the fun of it.



Three digital document delivery services ... cover the spectrum from excellent to disappointing.



### the picks

#### BIOMED CENTRAL

BioMed Central exemplifies the new breed of scholarly publishers and their digital facilitators [www.biomedcentral.com], which came in with a vengeance to deploy the Internet for publishing a large number of open access, scholarly, Web-born, digital-only journals. BMC has additional interesting services, such as the Faculty of 100, but I focus here on the BMC full-text journal archives. BMC develops at such a rapid rate that, although its home page refers to 150 journals, there were already more than 160 available at the end of July, with 12 more in the wings. BMC has close to 33,000 articles and other papers.

Most of the journals are completely open access from the first issue to the current one, with no moratorium in place. These journals provide 17,787 open access articles. In five journals, only the research articles are guaranteed to be fully open access, but when I eyeballed the results list from the 10,000 nonresearch articles, it seemed many of them are also free.

Four journals for which Thomson Scientific is the content provider (*iDrugs* and its *Current Opinion* series) yield 4,348 hits—all of them subscription-based. One journal makes its news items freely available through BMC, but the rest of its

Information-rich summary page of a BMC article with powerful links.

content is only for subscribers. By any count, this is a remarkable set of new open access journals.

True, many of the journals have only a handful of articles, as most launched in the past 5 years, such as all 60 titles in the BMC series. (One BMC title ceased publication after 1 year, and two have changed titles, but the others seem to be in good shape.) All of the journals are indexed and abstracted by MEDLINE and Scopus, while 17 of them appear in ISI's Web of Science. The articles are available in HTML and PDF. In addition to delivering the documents, BMC offers useful indicators about the journal (such as its Impact Factor), indicates the most highly read articles, and links to other articles in BMC journals that cite the one being displayed.

It is a joy to navigate through the system. Its software integrates this database very well with PubMed, PubMed Central, Google Scholar, and the Web of Science (the last is for subscribers only). The software adds a state-of-the-art look and feel and a sharp mind to the precious content. *[Editor's note: As we went to press, BioMed Central announced a companion database for the chemical literature called Chemistry Central (www.chemistrycentral). Both databases can be found in the newly created Open Access Central (www.openaccesscentral.com) portal.]*

### PUBMED CENTRAL

PubMed Central, the full-text open access archive of scholarly and professional journals in medical and other life sciences, offers incomparably better content and software in the life sciences field than does Microsoft Live Academic. However, it gets an incomparably smaller amount of attention and recognition than the latter. Space in this column can't do justice to this impressive database, but I'll have a more detailed review in the open access Peter's Digital References Shelf column hosted by Thomson Gale. Here's the skinny.

PMC offers open access to more than half a million articles from the best medical and life science journals, such as

*Biochemical Journal* (48,500 articles), *Biophysical Journal* (13,500), *British Medical Journal* (30,000), *Infection & Immunity* (25,000), *Journal of Bacteriology* (43,000), *Journal of Clinical Investigation* (24,000), *Journal of Clinical Microbiology* (20,500), *Journal of Clinical Pathology* (14,000), *Journal of Virology* (30,000), *Nucleic Acids Research* (28,000), *Plant Physiology* (24,000), *Journal of Physiology* (21,000), and *Proceedings of the National Academy of Sciences of the U.S.A.* (85,000). This last entry is the third-ranked periodical by an impact factor of 10 among the multidisciplinary journals.

If this list has not whetted your appetite, then here are some top notch library and information science journals available through PMC: *Canadian Medical Association Journal* and its predecessor (21,000), *Journal of the Medical Library Association* and its predecessor (7,700), and *Journal of the American Medical Informatics Association* (800-plus). Some of these are also available through the outstanding HighWire Press digital archive. However, in most of the cases PMC has more items from these journals simply because it tries to cover the journals from their first issue, while in HighWire Press the articles published before 1996 are not free. PMC also covers all the nonsubscription journals from BMC. Some of these have moratoriums ranging from 3 to 12 months. The LIS journals mentioned above have full coverage from the premier issue and no moratorium—except for *Journal of the American Medical Informatics Association*, which makes the articles open access a year after their publication.

PMC's software is not as sprightly as BMC's, but it is light years ahead of the "new" software used by BL Direct. Its algorithm for matching cited references is not yet perfect but is far better than the matching algorithm used by Google Scholar, which too often yields a large number of phantom citations and massively inflated citation scores. These are taken at face value by naive users, who in turn take these counts to their peer-reviewed articles, spreading the myth.

The citation-matching algorithm needs improvement but the content of PMC is first-class.



## the pan

### BL DIRECT

I have used, liked, and respected the services of The British Library Lending Division (BLLD) since my youth, back when everything was manual. We ordered documents from BLLD (at a rather steep price for the library) if there was no other way to get the article or conference paper. Later I disliked the computerized version, not because I'm a computer-phobe, but because it was such a cumbersome process.

An article by Mark Chillingworth in the June 2005 issue of *Information World Review* [<http://www.iwr.co.uk/information-world-review/news/2137371/british-library-launches-direct-beta>] piqued my interest in the new service. In it, the director of sales at BL explained the repeated delays of the launch of BL Direct, describing it as a "platform for moving BL into the 21st Century." It sounded like the Second Coming, and I anticipated software such as, say, that of the Internet Movie Database or BioMed Central—fresh, spiffy, and smart. Such was not the case. Except for the nifty mouseover option to display the abstract, it looks more like a search page that some Computer Science 101 students made during their lunch break—in the 1980s. You can't search the full text (even for the digitally stored documents), can't browse author and journal names, can't sort the result list, can't limit the search to years range, and can't do many other things. All those negatives, however, are not why I chose it as a pan. I had a much more important reason.

While organizations and individuals struggle for world peace, potable water, and open access archives of scholarly and professional publications; while publishers, entrepreneurs, and government agency employees labor to design, create, and operate magnificent digital repositories (legally) that make copies of tens of millions of articles, conference papers, and books freely available and fully searchable; what does The British Library Document Supply Service do? It launches a run-of-the-mill service and levies a service charge of £7.45 plus VAT, on top of a variable copyright fee, to deliver documents to your desktop that are freely available by pressing a button (or two) and have no stricter reuse provisions than those delivered by BL Direct.

The British Library charges \$44–\$67, depending on the delivery option chosen, for an article from *Journal of Physiology*. Alternatively, the smart librarian could find it for free at PubMed Central and at Blackwell (which has been the actual publisher for 3 years, not Cambridge University Press as The British Library claims). Blackwell charges only for the 728 articles published in the past 12 months, but not for the other 21,000-plus articles published earlier. By the time you read this, PMC will likely have completed scanning and converting volume 517 of the print journal. At press time, PMC had finished digitizing the first 505 volumes with some known gaps.

The screenshot shows a Google Scholar search interface. The search term is "coupled g protein" and the journal is "journal of physio". The results show "Results 1 - 100 of about 4,930 for coupled g protein". A link is highlighted for "G-protein coupled receptor kinases as modulators of G-protein signalling - [group of 4]". Below this, a snippet from "M Bütemann, MM Hosey - The Journal of Physiology, 1999 - [ip.physoc.org]" is visible, mentioning "G-protein coupled receptor kinases as modulators of G-protein signalling" and "Desensitization of G-protein coupled receptors".

*A too-prominent link to BL Direct and too-subtle a link to open access sites in the redesigned result format of Google Scholar*

Of course, there is the "savior," Google Scholar, to guide the users do who not know about the three open access sites for this (and many other) journals. Indeed, Google Scholar did a good job in guiding users to the free sites in this example, but recently it added a new feature that may steer the majority of the users to the expensive BL Direct service.

Google Scholar links the article title to the HighWire Press archive (that's fine), and if the users click on the group of four links, it shows other open access sites for the article. My complaint is that Google Scholar displays the BL Direct link very prominently—actually, too prominently. This is good for BL but not for the naive users.

The British Library often has no idea about a journal's current publisher. It indicates Meckler Corp. as the publisher of *Computers in Libraries*, and Online, Inc. as the publisher of *ONLINE*. Information Today, Inc. (ITI) acquired *CIL* from Alan Meckler over a decade ago and all the assets of Online, Inc. from Jeff Pemberton 5 years ago. I am sure that the royalty checks are sent to ITI, but I put a rider on my contract to prevent The British Library from selling photocopies of my articles after I found out what absurd copyright fees are charged through its partner, Infotrieve [<http://www2.hawaii.edu/~jacso/extra>]. These include articles freely available at the publications' Web sites [[www.infotoday.com](http://www.infotoday.com)]. The articles are available legitimately from ITI InfoCentral [[www.iti-infocentral.com](http://www.iti-infocentral.com)] for, at most, \$3.95 per article. Most of the aggregators, such as Dialog, EBSCOhost, Factiva, LexisNexis, and ProQuest, sell these articles for a slight fee. To my surprise, they are also available through BL Direct.

The new version eliminated some of the absurd page-based royalties and the erroneous records that occasionally provided three different page ranges (and thus royalties) for my modest publications. I gain no advantage or disadvantage from this; it is a question of principle not to endorse the document delivery charges of The British Library, which makes millions of free open access articles cost an arm and a leg. This undermines the principles and practices of the open access movement. It is akin to charging people for using the beaches of Hawaii.

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