

Open-Access Concepts Sweep into China

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While the boil of open access settles to a constant simmer in some parts of the world, China is just beginning to feel the heat. In 2003, the “Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities” was supported and signed by many countries and regions (see www.zim.mpg.de/openaccess-berlin/berlindeclaration.html). Youxiang Lu, president of the Chinese Academy of Sciences (CAS), and Yiyu Chen, president of the National Natural Science Foundation of China, were among the signatories. From there, attention to open access has accelerated. In light of the rising costs of periodicals and growing participation of Chinese scientists in worldwide publishing, there is much to be gained through open access, although it will be particularly stinging to those who bear the costs.

To learn about the experiences of open access from other countries and to encourage decision-makers in government scientific agencies and scientific institutes to be involved in the open-access movement, CAS and the InterAcademy Panel on International Issues cohosted the International Conference on Strategies and Policies on Open Access to Scientific Information. The meeting was held in Beijing at the Library of the Chinese Academy of Sciences (LCAS) on 22-24 June 2005. The conference was co-organized by LCAS and the Open Society Institute Electronic Information for Libraries and sponsored by the National Science and Technology Library of China (NSTL).

Much of the meeting reiterated common themes of open access—both the hopes and trepidations—but it showed the spreading force that the open-access movement is having around the world.

Meng Liansheng, research librarian and supervisor of PhD students at NSTL, said that open access is “a real global movement that nobody can hold back” and sees how the movement will change the currently chaotic ways that scientific articles in China work to spread and develop science.

Those changes may take decades, but in the next few years a new mode may emerge such that articles are generated, put into institutional repositories, and downloaded or read online. Yet, he noted, the future is still unclear, with a majority of people in China unaware of the open-access movement. He himself became aware of the movement about 2 years ago because of his avid attention to information in the field through journals and international meetings. However, for many, this meeting was their first introduction to the concept, causing shock and bewilderment and evoking questions about appropriate strategies to cope with it. The meeting had a profound effect on the China library and academic publication field.

Presenters discussed the threats and challenges that scholarly communication is facing, presented strategies and policies on open access, exchanged best practices and experiences on their respective undertakings, explored the solutions to issues in legal, economic, and infrastructural aspects, and sought approaches to promote scholarly communication in a broader context.

In addition to speakers from China, the conference invited well-known scholars, policy-makers, and major players in open access from the United States, the United Kingdom, Canada, Sweden, Germany, France, Finland, India, and Brazil. They included representatives of the US National Academies, the French Centre National de la Recherche Scientifique, the Wellcome Trust, the Max Planck Society, Creative Commons, BioMed Central, Bioline International, the Public Library of Science (PLoS), the Scholarly Publishing and Academic Resources Coalition, Southampton University, and the Scientific Electronic Library Online.

Qiheng Hu, vice president of the Chinese Association for Science and Technology, in the keynote presentation stressed the need for balance, noting the important role of publishers in the system of academic exchange and knowledge flow but the need to balance profit-making with science and technology capacity-building.

To the Chinese scientific community, she recommended turning self-archiving into a habit while contributing papers to relevant publishers, using the emerging open-access periodicals, opening Web sites for current and finished research projects, and facilitating and supporting relevant scientific periodicals—particularly those affiliated with scientific associations and or societies—to switch to the open-access model. To the Chinese government, she proposed the study of global trends and development of open access, construction of national policies requiring that government-granted project results be stored by an open-access mechanism, inclusion of rate of publication in open-access periodicals in science and technology achievement review, and support of scientific periodicals to be pioneers in the open-access arena, ultimately strengthening the influence of the Chinese scientific community in the world.

Open access in relation to the developing world was presented by Subbiah Arunachalam (M S Swaminathan Research Foundation, Chennai, India). Much of the disparity among nations can be traced to how they have used science and technology, he said in his presentation. “To survive in the modern world and to meet the basic needs of its people, every country needs to harness the power and potential of science and technology. The argument that poor countries need to concentrate on the basics and need not bother about science is fallacious.” Just as Gutenberg’s invention in Europe of a printing press with moveable type led to far-reaching changes—causing monks to lose their jobs and printers and typographers to emerge, leading to the proliferation of universities, and accelerating the development of science—so do the Internet and open access have the potential for profound effects. The UN Millennium development goals (www.un.org/millenniumgoals/) cannot be achieved without local capacity in science and technology, he said. His two recommendations were to promote open access, especially open-access archiving, in developing countries so that the work from these countries will be noticed, read,

and quoted by scientists everywhere and to promote open-access archiving in the advanced countries, where much of the world’s scientific research is performed, so that developing countries’ scientists can have access to their papers.

Xiaolin Zhang, director of the LCAS, proposed that China create an environment that supports open access, facilitate organizational efforts, support educational efforts, support open-access publishing and self-archiving, and support open-access infrastructure. Those recommendations were discussed further in an invitational meeting and would be of great help in bringing open access into action in China.

To give the attendees some quantitative measure of open-access journals, the PLoS journals case study was presented; it showed some early positive results for the PLoS *Journal of Biology* with regard to impact factor, a measure of citation frequency. The journal just received its first preliminary impact factor from the ISI, which was 13.80—impressive for a journal started only 2 years ago. The numbers are considered preliminary, however, because impact factors are related to citations of material of the 2 preceding years (the 2004 statistics are related to citations in 2004 of journal issues published in 2002 and 2003), and the early numbers for this journal come from just the first 3 months of publication (at the end of 2003).

Conference attendee Tao Tao, general manager of Charlesworth China and formerly an editor of the English edition of the *Chinese Medical Journal*, said that the idea of open access was well received by the audience and noted that the young Chinese editors were especially enthusiastic about it. There is a lot of interest in open access in China among readers, authors, publishers, and libraries. With the increase in articles in Western publications coming from China and Asia, there is potentially a huge driving force for access to these journals. However, funding for Chinese open-access journals will probably continue to be a problem.

As is true elsewhere in the world, open-access publishing means a fundamental

change in the academic-publishing sphere. There is a long way to go, and rigorous cooperation is needed among legislators, educators, publishers, authors, and libraries. Everyone involved in the industry will need to change business models if open-access is to move forward in China. The question of who should pay for it was discussed, and it was generally agreed that authors are likely to be the ones paying for open-access publishing. Longer-term revenue might come in part from Web advertising.

From my own personal perspective, the open-access debate in China seems similar to what took place in the United States and the United Kingdom 12 to 18 months ago when publishers were nervous and wary about the potential effect on their business models. Open-access funded con-

tent is still only a small proportion of the total (probably less than 5%). Publishers are more relaxed, and “hybrid” models are appearing: journals publish both open-access and traditional content in subscription journals, and online versions of the open-access content is free. There is also an accepted concept of “delayed open access”, in which online content becomes free after an embargo period, typically 6 to 12 months.

For more about the conference and to access pdf files of the presentations, see libraries.csdl.ac.cn/meeting/openaccess.asp (English version accessible from there).

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