



## STM Publishing in China

By Yan Shuai (ORCID 0000-0002-1691-6027)  
Director of Journal Publishing  
Tsinghua University Press

Along with China's economic growth in the past decades, its STM publishing has also developed very fast, both in terms of number of journals and their academic influence and quality. Since China is a socialist country with unique characteristics, publishing in China also has unique features.

### Unique Publishing Management Systems

In China, there are four basic management systems (or rules) for journal publishing: central government examination and approval for journal launches, government administration and academic sponsorship (ownership), local management, and an editors' bar examination and registration process.

#### *Central Government Examination and Approval*

In China, if you want to launch a new title, you have to complete a journal creation form. If you are in a university under the Ministry of Education (*e.g.*, Tsinghua University), you must submit this form (with the university seal and other required documents) to the upper administration of the Ministry. (If you are in a provincial university or other provincial organization, you submit the form to the provincial administration for press and publishing.) Once the Ministry approves the application, it sends the approval (of course with the other required documents) to the State Administration of Press, Publication, Radio, Film, and Television of the Peoples' Republic of China. This central government body was set up in 2013 by combining two former ministry-level organizations: the General Administration of Press and Publication (GAPP) and the General Administration of Radio, Film and Television. Because the new name is so long, and since I only discuss issues related to publications, I will use GAPP to refer to this administrative entity.

GAPP makes a final decision on the journal creation application within 90 days. If the application is declined, the process is over (regulations say that you can apply for administrative reconsideration, but not many people will formally challenge this); if it's approved, the applying organization will be assigned a unified domestic serial number (called a CN). Regulations dictate that a journal with a CN can go to the ISSN China Center to apply for an ISSN.

Some other important issues related to journal publishing, for example, changes of journal title, administration, and sponsors, also must be approved by the central government via GAPP. If you want to suspend the operation of a journal, you also have to get GAPP approval. This is probably why not many journals in modern China have ceased publication.

As of May 2015, GAPP began approving online-only serials and issuing online CNs. This change is a real progress. Before, only printed versions were regarded as formal publishing, so only papers in print journals could be used for professional promotions, degree applications, etc.

#### *Government Administration and Academic Sponsors*

In general, China's management can be described as "vertical" and "horizontal." Vertical management refers to the authority central government ministries have over local organizations, no matter where they are. For example the relationship between Tsinghua University and the Ministry of Education is vertical. In horizontal relationships, one province or county is responsible for looking after the entities within its borders. Tsinghua is based in Beijing, so its relationship with Beijing Municipal Government is horizontal. Of course, Beijing Municipal Government will also take

care of its own organizations that have no direct relationship with the central government. For example, Capital Normal University, an organization controlled by Beijing, doesn't need to go to the Ministry of Education for any issues related to journal publishing.

So, once Tsinghua has received approval for a new journal, it becomes the journal's sponsor (owner). In China, all journals have sponsors, most of which are universities, research institutes, and academic societies. The sponsors bear all the major responsibilities: political and academic content control, editing and publishing quality, input and benefits, etc. The Ministry of Education naturally becomes the journal's administration organization, responsible for evaluating the journal creation application, publishing quality, training of the Editors and publishers, and so on.

#### *Local Management*

In the 60 days after Tsinghua was assigned a CN, the university had to go to the Beijing Municipal Bureau of Press, Publication, Radio, Film and Television (hereafter referred to as the Beijing Bureau) for a journal publishing certificate, which is required for each journal. The Beijing Bureau, like other provincial publication administrations, is responsible for an annual check of the journal, quality evaluation, administrative punishment, etc.

#### *Editors' Bar Examination and Registration*

Since 2002, China has organized an annual Editors' qualification ("bar") examination, with primary and middle levels. In 2007 GAPP issued regulations stating that only those people with the qualification can do editing and publishing work. They also stressed that only those Editors with qualifications at the middle level or above can be "responsible Editors" (who in turn must be registered at the provincial publication administration, *e.g.*, the Beijing Bureau). In the book publishing industry, the responsible Editor designation is very useful, because the ISBN will be assigned not only to the publishing houses but also to certain Editors. In journal (especially academic journal) publishing, it's difficult to carry out this policy, for some teachers or researchers will be moved from their original teaching or research positions to editing jobs.

China also requires those Editors with publishing professional qualifications to participate in continuing education. As of 2010, GAPP mandates that registered Editors complete at least 72 hours of continuing education, including attending at least 24 hours of face-to-face lectures. The other 48 hours can be of various forms: writing and publishing professional papers, undertaking research projects, attending relevant academic conferences, etc.

The responsible Editor registration with the provincial publication administration must be renewed every three years. In book publishing, invalidation of the registration by failure to renew is serious because that person's name can then not appear on the copyright page as a responsible Editor.

### **Developments in Recent Years**

#### *Increasing the Number of English-Language Journals*

Over the past 10 years, the Chinese central government has implemented a policy of controlling CNs. According to data at the [GAPP website](#), China had 4,920 STM journals in 2011, a figure that had increased to only 4,974 by the end of 2014. Thus, over the past five years, only about 10 new journals have gotten a CN each year.

In 2013, the China Association for Science and Technology (CAST), along with GAPP, the Ministries of Finance and Education, and the Chinese Academies of Sciences and Engineering have launched the [Project for Enhancing International Impact of China STM Journals](#) (PIIJ). With the support of PIIJ, every year 10 new English-language STM journals have been approved for a CN. From 2013 to 2015, China launched at least 30 new English-language STM journals.

#### *Increasing Journal Quality*

According to annual citation data released by the Institute of Scientific and Technical Information of China, the comprehensive influence of Chinese STM journals has increased. The average total citations per title grew from 957 in 2012 to 1,197 in 2014, while a metric akin to an Impact Factor (IF) increase from 0.390 to 0.490.

Data from CUJS ([www.cujs.com](http://www.cujs.com)) also illustrate the quality of China's English-language journals.

In 2011, 143 journals based in mainland China were covered by the Thomson Reuters' JCR; in 2014 this figure had increased to 163. From 2011 to 2014, the number of Chinese journals ranked in the top quartile of JCR publications increased from 4 to 15, suggesting that their quality has been growing steadily and remarkably.

#### *New Measures to Enhance International Influence*

Since PIIJ's launch in 2013, the initiative has focused solely on China's English-language STM journals, offering a four-tier system of awards. In the highest tier, several journals (six initially; eight as of 2014) are selected for annual awards of ¥2 million each for 3 years, with the main goal that they should try to become top international STM journals. The second and third tiers consist of awards for 30 selected STM journals to help them increase their ranking in relevant disciplines (¥1 million each) or rapidly improve their international influence (¥500,000 each). The final tier awards 10 organizations launching new English-language STM journals with ¥500,000 per approved title.

CAST and the other Chinese ministries encourage the winning journals to use the money to:

1. invite internationally renowned scientists to work as Editors-in-Chief and Associate Editors;
2. restructure editorial boards and improve peer review;
3. attract high-quality submissions (from around the world, but especially those arising from original research financially supported by the Chinese government);
4. promote the journals and raise their international prominence (in terms of IF and indexing);
5. send Chinese Editors to work with foreign counterparts;
6. reform Chinese journal publishing processes and establish new publishing models in accordance with international practices;
7. adopt international editing and publishing systems, and potentially hire foreign journal editors, publishers, and managers; and
8. hold academic conferences and related activities.

If the first phase of this project, which runs from 2013 to 2015, is carried out smoothly and fruitfully, CAST may initiate a second phase, to run from 2016 to 2018.

#### *The STM Business in China*

In China, not many journals are owned by publishing houses. Some years ago, a CAST survey showed that sponsors owned no more than two journals each. The nearly 5,000 STM journals are scattered across various universities (under the administration of the Ministry of Education or the provinces), research institutes (under the Chinese Academy of Sciences or other ministries), or societies (either under CAST or managed in a vertical or horizontal fashion). Only four publishing houses in China publish more than 10 STM journals: Chinese Medical Association Publishing House, 131 medical journals; Science Press, about 20 STM journals; Higher Education Press, 20; Tsinghua University Press, 13.

#### *Online Publishing*

Since STM journals are scattered across different organizations, the development of China's online publishing and distribution has met with some difficulties. For example, of 100 PIIJ journals, nearly all are now cooperating with foreign publishers and have adopted Scholar One or Editorial Manager for manuscript submission and peer review, with their digital data on foreign platforms.

Two companies, CNKI and Wanfang, are responsible for online publication of almost all Chinese-language journals (some papers are distributed by both, if a nonexclusive contract has been signed). Open Access has become prevalent in the past 10 years, with Sciencepaper Online being a popular preprint platform for Chinese authors.

In recent years, publishing standards, such as DOI and ORCID, have been introduced into China and have become more widely used. In part because Chinese people (especially those born in the 1960s and 70s) are more likely to be affected by name ambiguity, China invented iAuthor, which is similar to ORCID, and there are already connections between the two databases.

### Other Issues

China's government and society circles have paid great attention to fight against academic misconduct. CNKI developed a Chinese-language equivalent to CrossCheck called AMLC ([Anti-Misconducts Literature Check](#)). AMLC provides services not only for STM journals, but for social science journals and university dissertations.

In response to some retractions by foreign publishers, in September 2015 CAST circulated a five-point document detailing what not to do: do not employ a third party to write a manuscript; do not use a third party to submit manuscripts; do not engage a third party to revise manuscripts; do not provide false information related to peer reviewers; and do not violate authorship standards.

Publishing ethics have also been emphasized in China. In 2012, Tsinghua University Press published the Chinese translation of Irene Hames' book *Peer Review and Manuscript Management in Scientific Journals: Guidelines for Good Practice*. In addition, more COPE experts have been invited to attend Editors' and publishers' conferences in China.

### Three Steps Toward the Future

The Chinese central government has the ambition that by 2020 China will become the "Country of Innovation." STM journals will have to help achieve this goal, and in a Chinese paper I co-authored with my colleague Zhang

Xin, we illustrated a three-step strategy for developing China's STM journals. The first step is to effectively implement the PIIJ. My criteria for its success would be if a lot of internationally recognized research findings, whether from China or other countries, are published in the journals that received awards. Then increasingly more Chinese scientists will select these journals as their preferred choice for publishing their papers.

The next step is to build or restructure an international platform for both China's English-language journals and those from other countries. So far all 10 of the Chinese STM journals with highest IFs are on foreign platforms. However, because China is a culturally distinct country with unique systems, creating platforms customized for China is desirable.

Finally China should pay adequate attention to the publishing of Chinese-language STM journals. In this final step the Chinese government should encourage Chinese researchers to publish their innovative findings in the Chinese language. Then, translation from Chinese to English should be done for better visibility of Chinese research, and meanwhile translation from English to Chinese should be performed to enlighten Chinese inventors and entrepreneurs.

### Acknowledgements

My colleague, Mr. Fu Guole, an Editor with the journal *Science-Technology & Publication*, helped me collect some data for this article.