ABSTRACT: Presented in this article is an analysis of the function of English language academic journals in China in spreading knowledge around the world, of China’s technological achievements. The main problem is described, which is that of the survival and development of China’s English academic journals, and relevant strategies are proposed, in accordance with the No.19 Document launched by the General Administration of Press and Publication of the People’s Republic of China (2007, 2010), aimed at Publishing System Reform. The author of this article is pointing out that the development of English academic journals should be promoted in various ways, so as to produce higher quality articles. For example, the Sci-tech Periodical Evaluation System be adopted to carry out structural reform of sci-tech periodicals, to increase the market-oriented operation of the journals; and to ask for help from members of editorial boards to make the journals become the major citation source and increase the citation rate of articles published in the journals.

INTRODUCTION

The internationalisation of a journal suggests language is an element which cannot be neglected. While it is admitted that to be published in English is not the only choice for internationalisation, nevertheless, English undeniably is a strong medium for the academic journal to go global. English academic journals play a dominant role in international academic exchanges [1].

As the scientific and research communication between China and other countries increases, many researchers studying and working abroad are not publishing papers in Chinese. On the one hand, a manuscript written in Chinese may not be approved if the Chinese manuscript is from a member of an international team. On the other hand, the department they work for may not count Chinese papers as an evaluation component [2]. Meanwhile, due to various reasons, manuscripts written in Chinese may encounter discrimination.

For instance, an author from China once contributed two manuscripts to a famous international journal but both were rejected. For one, the reason given was that although the research was meaningful, the editor could not check two of the references, which were written in Chinese. As for the other manuscript, the editor claimed that, although the author’s research appeared interesting, the editor could not find an appropriate person to evaluate it.

These examples cannot represent all the circumstances, but they are more than enough to reflect the fact that some foreign journals do not give due importance to Chinese authors. They are prone to rejecting the papers by Chinese authors for inappropriate reasons, while in China, this rarely happens to foreign authors.

Currently, some famous international academic publishers co-publish China’s English academic journals. For example, Elsevier includes more than 2,500 journals, Springer 2,638, Wiley 2,074 and Taylor & Francis (T&F), more than 1,500. The ratio of cited English journals in the Science Citation Index (SCI) to its Chinese counterpart is more than 20 to 1. The chief executive of SCI has made it clear that SCI will not consider citing non-English journals.

There are more than 5,000 academic journals in China, among which English academic journals number only 300 or so. Few Chinese sci-tech periodicals are influential in the world and there is a lack of English journals of international potential [3]. Due to the Chinese language restriction, the English journals are expected to shoulder the responsibility of expanding the influence of China’s scientific research. Under normal circumstances, a journal tends to publish papers of natives of the country. Generally speaking, China’s English academic journals are likely to publish papers by Chinese authors. Of course, some journals may publish more papers from foreign authors, but it is rare indeed.
For example, if a foreign author or organisation wants to understand the main institutions and authors studying geospatial information systems (GIS) in China, the researcher can search China’s English journals to find the relevant research institutions. Through Springer, they can find the posting institutions and works of the English academic journal in China. The relevant agencies are also displayed, which is a good way to promote the institutions and the authors. This plays an important role in spreading scientific and technological achievements around the world.

BOTTLENECK AFFECTING THE DEVELOPMENT OF ENGLISH SCI-TECH PERIODICALS IN CHINA

The existing research evaluation system is essential for researchers in publishing their academic findings. At the same time, when promoting their own databases, foreign publishers stress that since the article can be found through a search engine, its original publishing house does not matter anymore. Thus, Chinese researchers tend to contribute their academic manuscripts to foreign academic journals. Papers indexed in SCI and journals with a high impact factor are important criteria for Chinese scientific research evaluation.

Take the journal Geo-Spatial Information Science (GSIS) for example; the proportion of domestic contribution has decreased, among which the campus that once accounted for a large proportion has decreased more sharply. In contrast, the foreign contribution has increased. The main reason is that domestic English academic journals play a less important role in scientific evaluation. In some universities in China, an international paper that is non-SCI indexed is considered no better than a domestic Chinese paper. During the process of Title Evaluation, Doctoral grading and the final phase of a project, only the total number is counted. If a university teacher, for example, publishes a paper in a journal whose impact factor is 13 or more, he/she can enjoy an annual salary of 400-500 thousand Yuan. This policy leads to the outflow of excellent academic papers. Thus, Chinese journals encounter the embarrassing situation that they lack excellent papers and the quality of papers is in decline.

The lack of papers of higher quality is an important reason for a journal’s perceived low quality and lack of influence. On the other hand, the quality of a journal can directly affect the submission from researchers.

China’s English journals have few foreign subscribers, and the on-line journal information is not complete, resulting in low visibility. The authors tend to refer to well-known journals and papers by established authors. Obviously, the authors tend to refer to internationally renowned English academic journals.

The promotion of English academic journals in China is not enough. The readers and writers firstly should have a convenient way to find and understand the English academic journals. Only then are they likely to contribute to and cite the journal. At present, the English academic journals still lack a powerful and effective promotional channel. The Chinese pay little attention to the promotion of English academic journals, as can be seen from journal Web sites. The initial stage is difficult, and the low visibility becomes another block in the development road of English academic journals in China.

Relatively speaking, English academic journals in China are still young, while English academic journals of Europe and the United States have formed a more mature, standardised mode of operation. Regarding the editorial process, they have a more rigorous peer review system and editing/publishing paradigm; regarding publishing, they have a comprehensive pattern, which includes business publishing groups, professional associations and professional publishing houses; regarding operations, they have flexible and diverse marketing forms and patterns. China’s English academic journals have no advantages in these areas [4].

The frequency of publication is low and the number of published articles is few. Currently, China’s English academic journals are quarterly or bimonthly, which has a negative impact on the time to publish, citation frequency and the number of published articles. However, the problems of quality of articles referred to earlier restrict the increase of publication frequency, as well as the number of published articles.

STRATEGIES TO PROMOTE THE DEVELOPMENT OF CHINA’S SCI-TECH PERIODICALS

An international editorial board does not mean the internationalisation of the journal - if the editorial board does not play its role and never makes any contribution to the journal, the internationalisation of the editorial board is of no real significance.

Strategy 1: Choose a leading scientist in the field as the chief editor, who is willing and able to organise the top scientists in the field as the editorial board. If circumstances allow, an English journal should have specialised editors and regional editors when necessary. The editorial board should provide some ideas about the direction of development of the journal and topic selection. Where possible, the editorial board should plan special issues and use internationally recognised standards to attract international counterparts to contribute articles. The journal should also assign regional responsible editors, who are in charge of soliciting contributions, proofreading and quality audit. The editorial board should organise experts to appraise the contributed articles. To ensure the academic quality of a journal, they should make a fair and objective evaluation, taking into account the qualitative effect of the review. In addition, members of
the editorial board, by using their international influence and various channels, should assist the editorial department to make the journal the major citation source and increase the citation rate of papers published in the journal.

An increase in the proportion of external contributions does not imply the internationalisation of the journal. Rather it only shows the expansion of the journal’s range and the influence of organisers. It also implies that it does not attract a domestic contribution. An increase of geographical distribution does not equate to strengthening the international influence of the journal; the citation rate should be taken into consideration. The year 2011 witnessed a substantial increase in overseas contributions published in the journal, *Geo-spatial Information Science*, and accounted for 48% of the total contributions. However, regrettably, there were few quality overseas contributions, which is not conducive to improving the influence of the journal.

**Strategy 2:** The journal should publish papers by core authors and those that interest readers. To some extent core authors are known in China. Active authors and highly cited papers can be found using the database of foreign publishers. Regarding peer review, the editorial board should promote the internationalisation of expert reviews.

The editors of a journal need to strengthen the concept of internationalisation. They should actively participate in international conferences and seminars, which strengthens the communication with researchers in a field from all over the world and helps the learning about latest research. At the same time, sound communication with universities’ state key laboratories and research institutions attached to the Chinese Academy of Sciences should be established. The journal should track key topics. Generally speaking, key topics and related participants are influential in the international arena and publish papers of high quality, whose contributions can greatly improve the citation and download rate.

In addition, the journal management needs to focus on the establishment and promotion of an attractive journal Web site. The main function of an English academic journal’s Web site is contribution management. There is much room for improvement and a huge gap exists with internationally renowned journal Web sites. A mature peer-reviewed journal’s Web site should have an increased amount of information posted on the Web site, such as the latest international scientific research and technology news; thus, increasing readability and promoting the journal. Content can be solicited from the international editorial board of the English academic journal.

**Strategy 3:** China’s English scientific journals should have policy guidance and financial support. Many editors disagree, holding that scientific communication should be subject to its own laws and develop without any administrative intervention. If the scientific research evaluation is oriented towards the SCI, its impact and international influence are important. Owing to their short history, China’s English academic journals have less experience in this field. What is more, the language barrier poses another obstacle. All these factors disadvantage China’s English academic journals. As for policy, the journal either should be less sensitive to SCI or to the impact. The focus should be placed on the citation of an entire paper, ensuring all authors are treated equally. In addition, the journal needs support policies to guide the journal down the road of virtuous development.

**Strategy 4:** Editorial boards should try to acquire financial support from the country and organisers. For example, the Ministry of Education started a programme for high-level sci-tech periodicals in 2012. Its aim is to develop a number of internationally influential sci-tech periodicals as important platforms featuring academic achievements in the field. The programme provides policy guidance and financial support. The target journals are English specialised influential academic journals. In addition, the attention of organisers is very important. For example, Wuhan University grants policy and funding support to its English academic journals, which includes the deepening of co-operation with international publishers and promotion of the internationalisation of journals.

**Strategy 5:** Carry out structural reform of sci-tech periodicals to increase the market-orientation of their operations. Decisions should take account of English academic journals. For journals not indexed by SCI, their operation and sources of contribution are big problems. It is very difficult for them to follow the same market-oriented path as other Chinese journals. For example, *Geo-Spatial Information Science* for the year 2011 saw a substantial increase in overseas contributions (14% in 2010; 49% in 2011). This, to some extent, shows an enhancement of its international influence, but it also indicates that the journal cannot absorb Chinese authors’ high quality contributions due to the current scientific research evaluation process.

English academic journals and, in particular, the highly specialised English academic journals should focus on spreading China’s scientific research achievements. From the perspective of revenue generation, China’s English academic journals find, to enter the international core database, income generation through advertising and layout fees to be impossible. The increase in the amount of overseas contributions reduces the layout fees income. The editors face great pressure and a heavy workload. They have to overcome the language obstacle and to invite contributions. To enter the international core database requires not only the input but also opportunities.

**Strategy 6:** China’s scientific and technological achievements should be emphasised. High-end scientific research achievements and products should be published in journals and/or posted on journal Web sites. Research results increase the international impact of a journal. Many products, e.g. surveying and mapping software in China, are
already very advanced. Influence of these products can be spread by English academic journals, which will also expose the material to more foreign researchers.

*Strategy 7:* An English academic journals union should be established in China. In contrast to the more than 6,000 sci-tech periodicals, the 300 or so English academic journals are relatively small in number and can be regarded as a specific group. The establishment of an English academic journals union means an independent platform for distributing information can be formed. It would represent a window on Chinese scientific research, which is conducive to improving the influence of China’s English academic journals in the international arena.

**CONCLUSIONS**

In this article, the main issues and problems concerning the survival and development of English academic journals in China were outlined, and some coping strategies for those academic journals were discussed. It is widely recognised that an international editorial board does not equate to internationalisation of the journal, if the editorial board does not play its role and never makes a contribution to the journal. Hence, the international membership of the editorial board is of no real significance. Additionally, these journals should publish papers by recognised authors in specific fields and of authors of interest to readers. To some extent, eminent authors are known in China. Active authors and highly cited papers can be found by using the databases of foreign publishers. As for peer review, editorial boards should promote the internationalisation of expert peer reviews.

**REFERENCES**