The China bull in the publishing shop

China is a large market with excellent long-term potential, but publishers and journals have often found that dealing with the rapidly growing number of submissions from its authors is problematic. A better understanding is needed of the publication goals of Chinese authors and the challenges they face when seeking publication success. New approaches are needed to adapt to the requirements of Chinese authors. Publishers and journals need to reach out to them with social media, to make preparation and submission more convenient, and to support the development of a positive scientific culture in China. By taking this author-centric approach, publishers and journals can be successful not only with Chinese authors, but also with authors from other emerging markets.

Introduction

The scientific, technical and medical (STM) publishing industry has been captivated in recent years by the potential of emerging markets. Because of its rapid growth, strong funding of research and large population of scientists, the focus of much of this attention has been on China. An oft-cited figure is that in terms of overall output of scientific papers China lags behind only the US, and in some areas in the physical sciences has already taken the top spot. However, most STM publishers have found China a difficult market to understand and to operate in, and that they must learn new approaches to be successful. Many publishers are investing in on-the-ground resources and have their top management making frequent trips. However, even those with no plans to set foot in China are affected by its rise because its authors account for a large and growing proportion of their submissions. Publishers feel these effects throughout their organization, from the intake of a paper, through to peer review, editorial decisions and production.

Beleaguered editors, referees, publishers and production departments may often feel as if there is a never-ending flood of submissions, and that those from emerging markets, China in particular, are taking up increasing amounts of time and resources. Publishers are growing more adept at interacting positively with authors from emerging markets but improvements are still needed. Despite their efforts at educating authors, putting in place language screening and patiently writing countless responses to author enquiries, journals still receive papers with poor language. These commonly do not follow guidelines, and often are wholly unsuited to the topics focused on by the journal. This can leave journal editors scratching their heads, or worse, lead to a negative ‘hoards at the gate’ mentality. However, those who seek to better understand the challenges faced by Chinese authors and what their publication goals are will be rewarded with increased quality of submissions and a more positive relationship with authors. Publishers and journals who continue as they have traditionally done will find not only that they continue to receive poor quality submissions, but they will also find the brands and reputations of their journals diminished in a country that is taking up a leadership position in the global scientific community.

Journal selection criteria

In seeking to understand Chinese authors, it is important to first understand why they publish. Generally, Chinese scientists publish for the same reasons as their peers around the world – to communicate their findings to their research community, to leave a permanent record of their research and to advance their careers. In an unscientific survey carried out by Edanz on...
ScienceNet, China’s leading scientific portal, 44% of 333 respondents stated that the potential appeal of their paper to a journal’s target audience was the primary criterion influencing their submission selection (Figure 1).°

A journal’s ‘impact factor’ was chosen by 17% of respondents as the primary criterion (Figure 1). While it can have a place in evaluating a journal’s standing, the importance of impact factor in China is exaggerated. This is true elsewhere but has occurred to a greater extent in China because of policies that encourage publishing in journals with a certain impact factor for graduation and career advancement. Furthermore, publishing in a high-impact-factor journal can have a large monetary reward. While many Chinese scientists decry this state of affairs for its negative effects on China’s scientific development, the metric continues to have a disproportionate effect on decisions.

Criteria such as appeal to a target audience, impact factor, potential for citations, and indexes and databases the journal is included in, which together polled approximately 68%, can be loosely taken together to represent author aims of sharing their findings with largest number of readers from their target audience and to gain recognition in their field (Figure 1).

Another important grouping of factors is the one that loosely represents convenience. Speed of publication, acceptance of manuscript type and publication costs together accounted for only 20% of responses about primary criteria, but authors make decisions based on a basket of criteria (Figure 1).

Figure 1 shows what respondents chose as the primary criteria used for selecting a journal to submit to. Most criteria can be grouped loosely into those aimed at reaching a target audience and gaining recognition (68%), or of convenience (20%). Some criteria, such as ‘speed to publication’ could fit into either category. While the survey did not determine opinions about open access, it does show that Chinese scientists are aware of it and take a journal’s business model into account when making a decision.

Not covered by the survey is how an author’s evaluation of their chances of success affects their decision. When deciding which journal to submit to, the likelihood of acceptance for publication is probably the most difficult factor for an author to evaluate. However, experience at Edanz indicates that because of the time pressures they face, authors do take this into account when weighing one journal against another. This leads to a dilemma because, for example, a journal might meet an author’s goals for impact factor, target audience and speed to publication, but they may feel that it is too risky to submit to because they have insufficient information, or have done insufficient analysis, to determine their likely chances of acceptance. These effects are felt even more by Chinese authors considering that they often face higher-than-average rejection rates. Because the uncertainty of the peer-review process and editorial decisions are an engrained part of the publication process, this dilemma seems under-appreciated by the STM publishing community.

Figure 1. Primary criteria for journal selection
Barriers to publication success

There is definitely no shortage of submissions to international journals from Chinese authors. However, for now, manuscript quality may be lagging quantity. For many journals, despite the volume of submissions and despite the first-rate research carried out at China’s top institutes, acceptance rates of papers by Chinese authors are significantly lower than those for authors from countries with a longer history of scholarly publishing.

The quality of Chinese-authored papers is improving, helped along by sustained investment in research and the reverse brain drain of scientists returning from abroad. However, the newness of China’s scientific community to scholarly publishing, and the gap left by the so-called ‘lost generation’ of scientists who were purged or never educated during the Cultural Revolution, means there is insufficient institutional memory and mentoring resources for young scientists. The ScienceNet author survey respondents were relatively young and inexperienced. Respondents aged 22–30 represented 54%; 91% of respondents were aged 22–40. Twenty-eight percent had submitted only one or two papers to an SCI-indexed journal and 42% fewer than six, not including the 46% who had never submitted to an SCI journal (Figure 2).

The top chart in Figure 2 shows the age ranges of respondents who had published at least one paper in an SCI journal. The bottom chart shows the number of manuscripts submitted to SCI journals from all respondents, including those who had not previously submitted to an SCI journal. The data from respondents with zero SCI submissions are removed from other charts.

The lack of knowledge of the publication process, as well as the absence of a strong culture surrounding peer review and scientific communication, means that something as fundamental as selecting an appropriate journal can be a hurdle. Thirty-five percent of the survey respondents noted selecting an appropriate journal as the most difficult part of the manuscript preparation process (Figure 3). Poor adherence to publication ethics is another factor that hinders the acceptance of some Chinese research by the global scientific community.

As well as overcoming inexperience, Chinese scientists must also overcome the hurdles of writing in a second language and in the manner prescribed by the journal. Twenty-four percent of the ScienceNet author survey respondents said that communicating their thoughts clearly in English is the primary challenge faced when writing a manuscript. Another 41% said that the primary difficulties were either understanding the journal’s guide for authors or preparing their manuscript accordingly (Figure 3). Something as seemingly simple as complying with word limits or correctly formatting fonts can be a barrier. The challenges do not end once a manuscript has been prepared. Not surprisingly, Chinese authors find responding to peer review challenging. A clear majority (77%) of respondents agreed that responding to the comments of peer reviewers was the most challenging aspect of the process during and after submission (Figure 3). The rigor of peer review is part and parcel of scholarly publishing, but is made more difficult by language barriers in understanding and responding to peer review.
comments. Furthermore, peer reviewers do not always communicate clearly with authors or provide information that is helpful for improving a paper’s content. Some Chinese authors even complain of discrimination from peer reviewers. While probably not widespread, this is something that should be of concern because, even when untrue, it is a sign of discontent with the peer-review process. There can be discontent on both sides – the root cause of many problems that occur during peer review is often poor writing on the part of the authors, something which busy peer reviewers rightfully have little patience with.

The top chart in Figure 3 shows the primary difficulties authors face when preparing their manuscript for submission. The bottom chart shows the primary difficulties faced in submitting the manuscript and the process that follows.

Be ‘author-centric’

For many publishers and journal editors, much of the above description of the challenges faced by Chinese authors and the criteria they consider when selecting a journal will not necessarily be new information. What might be new, though, is how scholarly publishing can become more ‘author-centric’ in the China context. How can publishers and journals adapt to the goals and
challenges of Chinese authors in a way that is positive and sustainable, and which also serves the STM publishing industry’s own best interests? It is hoped the following brief description of ideas will spark new thinking and encourage the author-centric approaches already being taken.

**Develop an on-the-ground presence**

In China, ‘brand’ often equates to trust, and establishing trust is a human endeavor that is helped immensely by having people who are accessible to Chinese scientists. Spending time in China in face-to-face meetings is perhaps the best way to understand Chinese scientists and to develop a network. Many publishers have representative offices in China but this is not the only approach. Those with limited resources can make good use of journal editors or others to act as their goodwill ambassadors in China and to provide a localized understanding. Another approach is to team up with a Chinese partner journal or society.

**Reach out through social media**

Having an ‘on-the-ground’ presence need not be literal. Reaching out to Chinese scientists online in their own language can also be a good approach. The most popular platform for Chinese scientists is ScienceNet, sponsored by the Chinese Academy of Sciences. ScienceNet has over one million registered users and receives 150,000 visitors per day. DXY is another popular platform aimed specifically at the medical community. Because these platforms are where Chinese scientists and health practitioners go to get advice from their peers and to stay current on developments in their field, they should be seriously considered as part of any outreach or branding strategy aimed at Chinese scientists. Social networking sites which are not science-specific should also be considered. For example, Weibo, a microblogging site equivalent to Twitter, is currently under-used by publishers.

As with more familiar social media platforms, merely publishing news announcements on ScienceNet or DXY will not engage China’s scientific community. Social media users want value out of their time and interactions, they want to learn how to meet their goals, how to overcome barriers and even to be entertained.

**Help develop a positive scientific culture**

Chinese scientists are eager to learn how to better communicate their research and engage with the global research community. Helping to develop a strong scientific culture in China and to connect local scientists to their peers globally is an aspect where publishers and journals have much of value to offer. Development of a scientific culture will go a long way towards improving submission quality and reducing problems with publication ethics. It will also increase the appetite of Chinese scientists as consumers of publications, and because reading in the field helps to develop positive scientific culture this can lead to a virtuous cycle. It should be kept in mind that this learning is a two-way street, and that the wider scientific community should also seek to learn from the best of what is happening in China. Chinese authors will resent being talked down to by those who have not taken the time to understand or listen to them.

**Create a positive peer-review process**

Many feel scholarly publishing is being disrupted by trends such as digitization, the open access movement and shrinking library budgets. Peer review is often cited as the fall-back position for demonstrating the value that publishers provide. Publishers therefore need to ensure that peer review is professional, polite and helpful in improving the quality of papers. New authors coming into the scientific community need help to better understand the benefits of peer review and how to engage with the process. Explaining why peer review has a positive role in the publication process and how it improves the quality of a paper is an important part of developing a positive scientific culture. Getting more Chinese authors to participate as peer reviewers will improve scientific culture in China because authors who have served as peer reviewers will better understand the process, think about their own papers more critically, and perhaps be less likely to deviate from ethical norms. Increased participation of Chinese scientists as referees will also help ease the burden of the high number of Chinese submissions. It may even reduce feelings of Chinese authors that they are being discriminated against. The friction that can sometimes exist between peer reviewers and Chinese authors will be eased if the scientific
community as a whole feels that Chinese scientists are carrying their share of the peer review load rather than only being consumers of peer review.

**Make selecting an appropriate journal easier**

While the increasing volume of submissions from Chinese authors is one challenge, another is that they are often submitted to an inappropriate journal. It has traditionally been expected that authors are able to identify appropriate journals to submit to. Authors may have a short-list of journals based on their reading, their reference list, or where they have published in the past. The list might then be narrowed down based on a journal’s aims and scope, by examining prior publications and by getting advice from colleagues. Based on anecdotal reports from publishers, echoed by frustrated authors, this process does not work well for many Chinese authors. This is likely caused by a combination of the large number of journal options, the relative inexperience of Chinese authors and the lack of experienced colleagues able to give guidance. It is also caused by language barriers that make it difficult for authors to review a journal’s prior publications or to understand the nuances of its aims and scope.

These problems could be mitigated by better differentiating journals, the topics they cover and their intended audience. Journals may also need to consider new approaches such as putting aims and scopes into Chinese, or even considering alternatives to the traditional aims and scope, which can be static and seem much the same from one journal to the next. Journals need to provide clear information about the criteria authors use to evaluate them, such as timelines to decisions and publication and where the article will be indexed. These should be readily available when authors are making a decision. Though difficult, journals could also make more effort to set out the criteria that peer reviewers use and how the journal makes decisions on acceptance. This could be done, for example, by setting out what the journal considers sufficiently novel, or by being more specific about the type of supporting evidence required.

Authors also need to be educated to look beyond the impact factor and to consider other indications of a journal’s reputation in their field. This will help them to more easily find a journal that meets their publication goals. Building awareness of open access as a way to reach a wider global audience is a promising way to do this.

**Make preparation and submission processes easier and more convenient**

Journal selection is not the only part of the process that needs to be made more convenient. Publishers should pause to consider that on top of the challenges of writing in a second language, busy scientists can spend a great deal of time formatting a manuscript and then submitting it through an electronic submission system. This process is indeed much easier than in the past, but improvements are still needed. Those who make life easier for authors by simplifying author guidelines, putting key points of the guidelines into Chinese, streamlining submission systems, or even using technology to automate formatting, will be rewarded.

Many journals have policies in place to reject prior to peer review those submissions which do not meet language quality standards. This is a policy that can save the peer review and production pipelines from being overwhelmed. It can also save the time of authors whose language will not be understandable to referees. However, care is needed to ensure that the reasons for screening are clearly communicated and that authors be given support in solving language issues.

**Conclusions**

The rise of China as a leader in scientific research brings with it many possibilities for publishers and journals. However, the path to realizing this potential is not always clear. New skills need to be learned and new approaches adopted. Regardless of size or level of international ambition, publishers and journals require strategies that will get the most from the opportunities presented by China’s burgeoning scientific community. Creating these strategies and developing new capabilities will bring rewards. Understanding Chinese authors will also help in understanding how to unlock the potential of other emerging markets. At its core, doing what is needed to achieve success with Chinese authors is no different from that needed to achieve success with authors from anywhere in the world.
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