

## Scientific publishing in the Asian century: an international perspective

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### Introduction

There was a time when Europe and North America essentially controlled the world of academic publishing, but today Asian countries are quickly emerging as leaders in the industry. As Chairman of Elsevier and past President of the International Publishers Association, I've had a unique opportunity to develop a global perspective on the trajectory of academic publishing both in Asia and throughout the world. Today, I'd like to share my perspective with you on the rise of Asian journals and what it takes to remain competitive in this increasingly global field.

When I think about the current world of scholarly publishing, I often think of a Confucian proverb, which in English translates to:

*Be not afraid of growing slowly; just be afraid of standing still.*

It's an old saying, but it encapsulates a lot of what I think about our industry today. In many ways, we are at an important turning point. New technologies are changing how we produce and consume content, and researchers are collaborating more across boundaries than ever before. But change doesn't happen overnight; well, at least good change doesn't. In our industry, even though there is a lot that is new, I think it's important not to lose sight of what hasn't changed. Content is still king. Top journals still need top quality content to stay competitive. The reputations of editors and titles still matter. And accessibility, whether we're talking about language, distribution, or content, still plays a big role in determining a journal's success.

To go back to the proverb, we should not be too afraid to grow slowly. That's the only sustainable way there is to grow. It's true that we have to try out new technologies, new processes, and new organizational structures as they come. But at the same time, we have to stay focused on executing the fundamentals well. We keep what works and toss out what doesn't. This process takes time, just like conducting good research takes time, but that's okay as long as we keep challenging ourselves to move forward. Positive change takes time; we just can't afford to stand still.

I know that everybody is interested in where Asia is headed in terms of scholarly publishing. I think it is actually still an open question, but there are some trends I've noticed, over the past few years that I'd like share with you.

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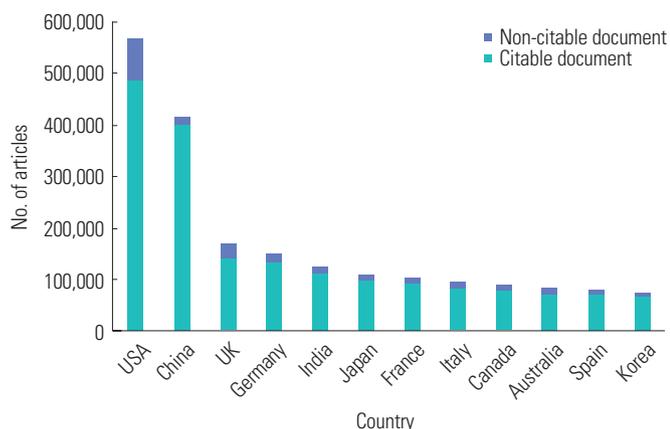
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**Fig. 1.** Number of articles published in 2015 in Scopus according to country available from <http://scimagojr.com/countryrank.php?year=2015>.

## Background for Promotion of Journals Based in Asia

It's common knowledge that Asia has made remarkable progress in terms of sharpening its focus on scientific research. Over the past two decades, research output in this region has grown by more than 9% per year—that is a truly exceptional growth rate. For comparison, over the same period of time there was 4.5% annual growth in Europe, and an even smaller 3.5% in the Americas. Today, five of the top twelve producers of research content are based here in Asia-Pacific (Fig. 1). On top of that, field-weighted citation impact has been steadily improving. This measure of impact normalizes at 1.0 for the world average across disciplines, and in the Asia-Pacific region we've seen it grow from 0.79 to 0.93 (Data from SciVal, available from: <https://www.scival.com>). It's not enough—we aren't 100% there yet—but things are really moving in the right direction. Another key indicator of research excellence is international collaboration. Twenty years ago, about 16% of the research output in Asia derived from international collaboration. Today we are at 23% and growing; in some Asian countries that number is closer to 50%.

## Two Things Critical to the Future of Scholarly Publishing in Asia

People today understand that Asia has been growing quickly, and no one really doubts that the scholarly community on this continent has great potential. However, the fact remains that Europe and North America are still the main players in scholarly publishing. So there is still work to be done before Asian journals, Asian scholars, and Asian universities are really viewed as pre-eminent.

When it comes to the future of scholarly publishing in Asia, I see two themes as being really critical: The first is mastering the aspects of this industry that are staying the same—the ones that are not subject to change; the second is taking full advantage of new developments in academic publishing.

## Fundamentals of Quality, Reputation, and Accessibility

There are a lot of serious challenges on the horizon for our industry. However, three aspects that are true today are not going to change much in the near future: first, setting high standards for published content; second, developing a strong reputation over time; and third, maintaining a high level of accessibility to readers in the scientific community. These three points will not change because they are the fundamental reasons why journal editors have jobs in the first place.

### Quality

Now the first point is obvious, but it's worth mentioning—especially when it comes to Asia. For the past twenty years, we've been playing the 'quantity' game. There's nothing wrong with this. In fact, it's really important to put together a certain amount of mass—critical mass, as we say. However, I think that in the next twenty years, we need to change that word 'quantity' over to 'quality.' We have graduated from the 'quantity' game. Let's move on to the next goal, which is the 'quality' game. There has been steady improvement over the years, but today the citation impact of articles in Asia-based journals is still slightly under the world average. To get to the next stage, scholarly communities in Asia will need to become more aggressive about publication quality.

Now, I did not say that scholarly output from Asia is below the world average. It's just that in the end, a lot of Asia's best papers just go to Western publishers like Elsevier rather than to Asian publishers. That's the difference. And in the next twenty years, we have to work to bring those papers to Asian journals as well. One journal I know of that has done really good job with this is called *Particuology*, a journal which is published by Elsevier through a partnership with the Chinese Society of Particuology and the Institute of Process Engineering of the Chinese Academy of Science. The journal went from having a total of 8 citations in 2008 to 1,577 citations in 2015. And from 2009 to 2015, the impact factor moved from 0.9 to 2.3. *Particuology* rose very quickly by relying on the plain, old-fashioned principles of publishing. The key was focusing on journal metrics, critical decisions, discussions at the editorial level, marketing, and making sure everything was indexed the right way so that articles could easily be found. This just goes to show that focusing on quality really works.

### Reputation

Another critical point is reputation. A journal is not just about conducting research or publishing papers; a journal is a community. That community is shaped by the reputation of the publisher along with reputations of the journal, the editor, and the author—this is obvious. But reputations don't just pop up overnight. They take a lot of time and effort to develop. Will a journal's one novelty, hot-shot article really change a reputation? No. Even if a piece of research is really strong, it can be hard for the article to break into the global mainstream research community if it comes out of a journal that has not developed a reputation for excellence. Just one article cannot determine a journal's reputation. There needs to be a steady flow of high-quality scholarly output for a long-term relationship to be built between the editors and the contributing authors. And over time, hard work pays off and you are able to build up your reputation.

My advice to editors in Asia is to focus on building up a brand that is synonymous with quality. The importance of reputation is not going to change anytime soon. If anything, with so many journals and so much scientific output, reputation is actually becoming more important than before. So I think that a lot of journals in Asia have an opportunity to become global leaders by building a reputation through consistent high quality.

### Accessibility

The final point I want to highlight about what is not changing is the importance of accessibility. Reputation feeds into this, because when you develop a strong reputation, you naturally become more visible to a large group of people in the science community. On the other hand, when you do not have a strong brand that people recognize, it is hard to get your work out there to a large audience. However, there are plenty of other things that factor into accessibility beyond just reputation—distribution networks, web presentation, marketing, and pricing all matter. Each of these is a critical factor in accessibility, but one extremely important factor that I think we can't stress enough is accessibility of language.

### Accessibility of Language

In order to compete at the top level in this global industry, you have to be able to communicate with the whole scientific community. That means communicating with people anywhere in the world. Today, as it has been for the past 35 years, the lingua franca is English. And whether you like it or not, no matter how high the quality of your content is, if it is not discoverable in English, then you're going to miss out on an opportunity to be recognized.

There are basically three types of journals when it comes to language and accessibility. The first type of journal is a local language journal that is tailored for local authors and audiences; the second is a local language journal with an English abstract; and the third is a full-text English journal.

Any journal without even an English abstract has to accept the fact that its audience is only going to be local. I know people say that online translation software is getting to the point where it is decently functional. But I still don't know of any translation software that's even halfway there. When we start seeing translation software with serious accuracy, there will no longer be a need for English abstracts in local-language publications. However, this is not happening anytime soon. Even with all the recent technological developments in machine learning and artificial intelligence, it will take a while for automatic translation to reach a level of accuracy where the final product is not confusing or misrepresentative. Why does it make such a big difference for articles to have English abstracts? An English abstract gives your article the chance to be indexed by Scopus and other indexing services. If readers find the abstract to be interesting, they will use translation software to try to read the full text; but, without an abstract, no one will even know that the article exists. This is a real challenge.

In a world that is so interconnected, journals in Asia with full English text articles will compete on an equal basis with journals in the West. In the long run, high-quality Asian journals with full English text will start to become household names in North America and Western Europe. It should not be long before Asian journals in English will compete with *Cell*, *Lancet*, *Nature*, and *Science*.

### Maintaining a Global Focus

There are a lot of important things that are not changing. But there are a couple of things in our industry that are changing rather abruptly. Two of the major changes that I believe Asian journals have to pay attention to are having a global focus and embracing technologies that affect publishing. As I alluded to earlier, it used to be true that many Western journals enjoyed strong international reputations purely based on their geography. However, the days in which British or American journals get a free pass based on location are over. The world is shrinking every day, and other regions, particularly Asia-Pacific, have proven that they can compete on a high level. We are living in a world with far fewer boundaries than there used to be.

One really positive consequence of this for the scientific community is that it has become quite easy to collaborate with colleagues in different time zones all over the world. It

also means that scholars have more opportunities than ever to approach questions in an interdisciplinary manner. This increasingly global perspective in the scholarly community, along with a very strong focus on science research in Asia, opens up a lot of new possibilities. Going forward, old assumptions on both sides of the Pacific will continue to fade away. Researchers across the globe will continue to take Asian journals more seriously and will be more discerning in their assessment of Western journals.

I would encourage every editor in Asia to be aware of this trend and maintain an international focus. The world is watching journals based in Asia to see whether they are truly focusing globally, or if they are fencing themselves in to just an Asian audience and Asian authors. Reviewers and authors should come from anywhere in the world, not from just one country or just from Asia. But as an editor, you can't just wait for them to come to you; you have to go out and get them! It is essential to actively seek authors, editorial board members, and reviewers from beyond the confines of your own fence.

### Adoption of new information technologies

Today no journal can really afford to not be serious about technology. One good reason is simply cost. If we do not use technology, journal publishing will be too expensive. But there is an even better reason to focus on technology: the possibility for innovative solutions to better serve the scholarly community. There are so many opportunities to utilize social media, data analytics, and mobile devices that will allow Asian editors to reach out to people more effectively than ever before.

For example, the *Journal of Orthopaedic Translation* now uses WeChat to give the journal more exposure in China. Additionally, some journals are starting to roll out initiatives like online HTML proofing tools for authors. At Elsevier, we're also starting to use something called 'audio-slides' on ScienceDirect's online platform. Audio-slides allow authors of the article to explain their work in their own words in a short, webcast-style video. These are just a few examples of how journals can leverage technology. We have not even started to crack the surface of what's possible with things like data analytics or artificial intelligence. Journals that take these technological developments seriously will have a huge advantage over the ones that ignore them and "stand still."

### Conclusion

The next few years in the publishing industry will be about mastering both continuity and change. They will exist together. It's not one or the other—it's both. If Asian editors understand the journal publishing trends that are not changing—such as quality, reputation, and accessibility—while also embracing both technology and globalization, they will see their efforts rewarded many times over on the global stage.

### Conflict of Interest

Author is the chairman of Elsevier. Journals mentioned as example in this article are being published by Elsevier. No other potential conflict of interest relevant to this article was reported.