Trends in STM Publishing: Maximizing Impact

科技出版新趋势：如何扩大影响力

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Kunming, China

Trends… But are some things the same?

- Core goals of STM publishing have not changed. Authors, publishers, editors, institutions and societies *still* want （核心目标并未改变）:
  - To publish the highest-quality research （高质）
  - To publish as quickly as possible （快速）
  - Maximize impact, both among peers and the wider community（最大化影响力）
  - Maximize use of technology and efficiencies to support the workflow from peer review to publication – and *make it easier to collaborate* (充分利用科技手段实现由同行评议到最终出版的高效运行，为参与各方省时省力)

  The integrity of the core processes of publishing and peer review are still the most important factors in driving success in STM Publishing. （出版的核心过程和同行评议仍然是成功的决定因素）

  However, new tools are making it easier for authors to collaborate and gain impact.（作者可以使用新工具来扩大影响力）

Trends... What is changing?

- 'Globalization' and the fact that high-quality English-language research is not just coming from the UK and US. （全球化，高质量的英语文章不仅仅来自英美）

- Technology – in all aspects of the publishing workflow. We look at some specific examples. （科技手段应用于出版流程的各个方面）

- Other ways to measure 'impact', esp. in light of greater visibility through use of social media. Is the 'impact factor' under threat? （衡量影响力的其他方式，如通过社交媒体扩大影响力。影响因子是否受到挑战？)

   Globalization and technology have 'opened doors' for high quality international research, but have also brought some challenges... （全球化和技术进步为国际科研带来的机会和挑战并存）

Trends… With change come challenges

- Quantity over quality? Huge output of papers in some disciplines has created challenge for publishers and editors to screen the volume of output.
某些领域文章数量太多，优选高质文章成为挑战
- Adherence to journal 'standards' can bring problems (i.e. authors not meeting requirements in article scope and structure), but are those standards clear to potential authors?
遵从期刊的"标准"也可能带来问题，标准本身是否清晰？
- In some disciplines, there are challenges getting sufficient reviewers, and some high-profile cases of retractions （撤稿） have emerged.
审稿人短缺与多次发生的撤稿事件
- Issues of authorship (vs guarantors) – identification of key contributors to the research and write-up.
作者身份问题，如何判断在研究和写作中的贡献

Trends… With change come challenges

R&D spending, selected countries 2000–2015; the dotted lines indicate projections, based on announced targets.

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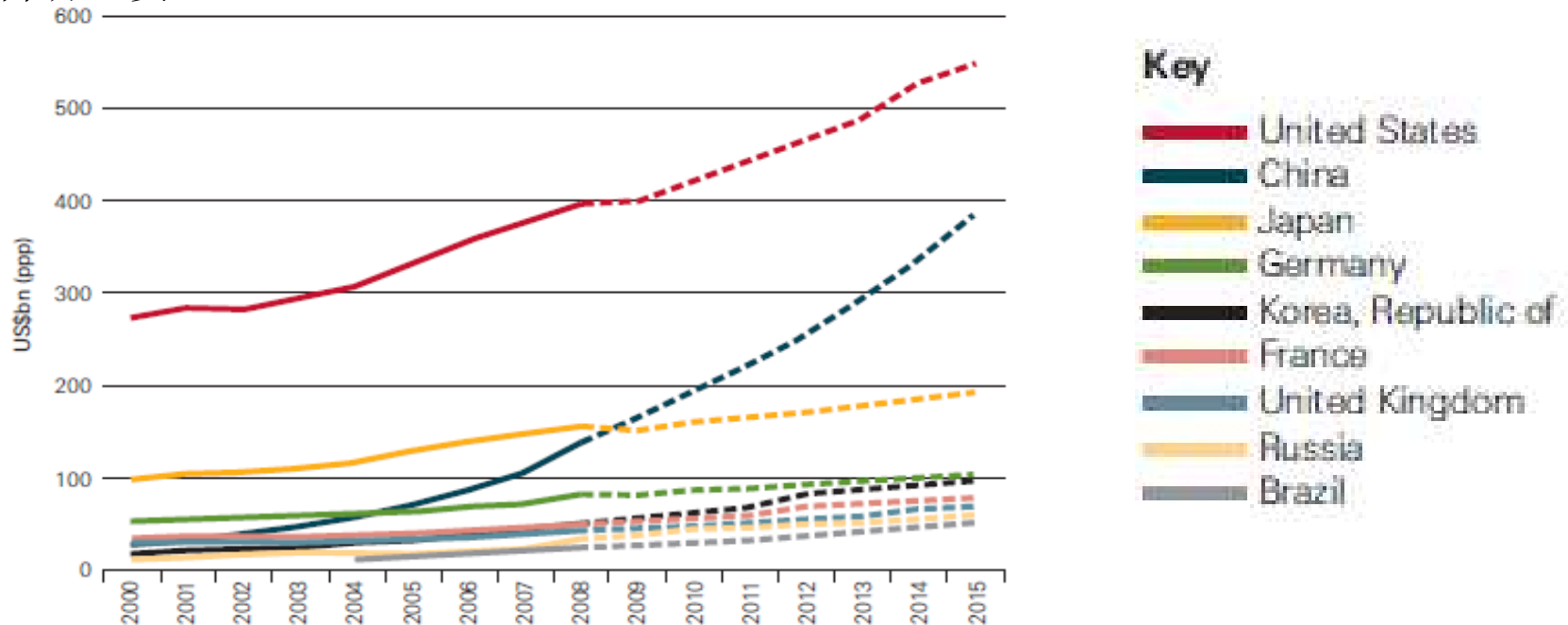
Source: Knowledge, networks and nations: Global scientific collaboration in the 21st century,
The Royal Society, 2011

Trends… With change come challenges

The overall growth in Chinese papers published in Western journals is rapid: Web of Science statistics demonstrate that 9.3% of papers published in 2011 came from China; by 2014 this had grown to 14.4%. In some disciplines, Chinese papers have overtaken those from the US.

中国学者在国外期刊发稿数量增长迅速，部分学科稿件数量超过了美国。

Quality of submissions may be an issue (which also provides evidence to show the growth in services providing language editing and submission-support initiatives), but it is also true that many publishers report improvements in quality and lessening rates of reject-on-receipt in recent years.

稿件质量是个问题，催生了投稿、语言编辑等方面的服务。同时，一些出版社报告显示近些年来稿质量确有提升，拒稿率下降。

China is an important and positive focus for many publishers, but growth outside the US from non-English-speaking countries also brings opportunities and challenges.

出版社重视中国市场。

Tools for global impact – and collaboration

Some examples that are emerging, to help authors and publishers:
帮助作者和出版社扩大影响力的新工具示例

Kudos (growkudos.com)

ORCID (orcid.org)

FundRef

Innovations from Digital Science (digital-science.com)…

Tools for global impact – and collaboration

figshare

figshare is a repository where users can make all of their research outputs available in a citable, shareable and discoverable manner.

LEARN MORE ●

Overleaf

Overleaf is an online LaTeX and Rich Text collaborative writing and publishing tool.

LEARN MORE ●

SYMPLECTIC
Elements

Symplectic Elements is the world's leading research information management system.

LEARN MORE ●

Dimensions

Dimensions provides an in-depth analysis of ongoing research funding.

LEARN MORE ●

BIO>RAFT

BioRAFT helps institutions get organized around researcher safety through its enterprise laboratory safety, compliance, and training software.

LEARN MORE ●

labguru

Over 1000 labs trust Labguru to design experiments, organize their research data & manage their inventory.

LEARN MORE ●

GRID

Cataloging the world's research organisations.

LEARN MORE ●

readcube

Read, manage & discover new literature like never before.

LEARN MORE ●

Altmetric

Altmetric allows users to track and measure activity around academic research

LEARN MORE ●

Example: Kudos

Example: ORCID

DISTINGUISH YOURSELF IN THREE EASY STEPS

ORCID provides a persistent digital identifier that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized. Find out more.

1 REGISTER — Get your unique ORCID identifier Register now! Registration takes 30 seconds.

2 ADD YOUR INFO — Enhance your ORCID record with your professional information and link to your other identifiers (such as Scopus or ResearcherID or LinkedIn).

3 USE YOUR ORCID ID — Include your ORCID identifier on your Webpage, when you submit publications, apply for grants, and in any research workflow to ensure you get credit for your work.
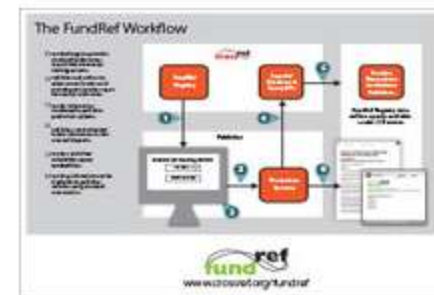
Example: FundRef

FundRef provides a standard way to report funding sources for published scholarly research. Publishers deposit funding information from articles and other content using a standard taxonomy of funder names. This funding data is then made publicly available through CrossRef's search interfaces and APIs for funders and other interested parties to analyze.

HOW FUNDREF WORKS

1. The FundRef Registry provides a taxonomy of standardized funder names.

2. Publishers or their manuscript tracking system vendors incorporate the FundRef Registry into the submission processes. Authors select funders from this list and provide grant numbers at the time of manuscript submission. Alternatively, publishers extract funding information from content as part of their production/typesetting process, and match the funder names to those in the Registry

3. Funder information is transferred to publisher production systems.

4. Publishers send funder information (funder names, funder IDs and grant numbers) to CrossRef as part of their regular metadata deposits.

5. Funders and others query CrossRef and receive DOIs and metadata for articles resulting from their funding.

FundRef Workflow

Example: Altmetric

Altmetric

We make article level metrics easy.

you

Scientists talk. Let's listen.

Every day, thousands of scholarly papers are being discovered, discussed and shared.

Altmetric tracks what people are saying about papers online on behalf of publishers, authors, libraries and institutions.

Find out more

Tools for collaboration and managing research

ReadCube
(readcube.com)

科研合作与管理

Mendeley
(mendeley.com)

Tools for collaboration and managing research

figshare
(figshare.com)

Emerging policies around data and archiving

Example from *SpringerPlus*   来稿数据收集、存储及使用的新政策

Data and materials release

Submission of a manuscript to *SpringerPlus* implies that readily reproducible materials described in the manuscript, including all relevant raw data, will be freely available to any scientist wishing to use them for non-commercial purposes. We generally encourage authors to make research data underlying articles accessible. Appropriate repositories from all academic disciplines for the storage of data sets can be found at re3data.org - Registry of Research Data Repositories. Nucleic acid sequences, protein sequences, and atomic coordinates should be deposited in an appropriate database in time for the accession number to be included in the published article. In computational studies where the sequence information is unacceptable for inclusion in databases because of lack of experimental validation, the sequences must be published as an additional file with the article.

Any 'in press' articles cited within the references and necessary for the reviewers' assessment of the manuscript should be made available if requested by the editorial office.

Is a journal just the written word?

Interoperability: joining the dots!

- All of these examples are tools to help authors, publishers and institutions create, share and manage their research and published materials, but in different ways, and using technology to drive them.
- A key word now in STM publishing is '**interoperability**'. 今天科研出版中的一个重要概念：互操作性
- These tools would not be so useful if they are used in isolation…在孤立环境下，以上工具的作用都很有限

- … But what if they could be accessible via easy links, apps and APIs?
- Technology is now making this possible.
- 但技术使获取内容更简单
- Is it also arguable that Open Access encourages development as authors expect the process to be smoother because they/their institutions pay directly? 开放获取，作者付费后要求提高，也许是发展的另一动力？
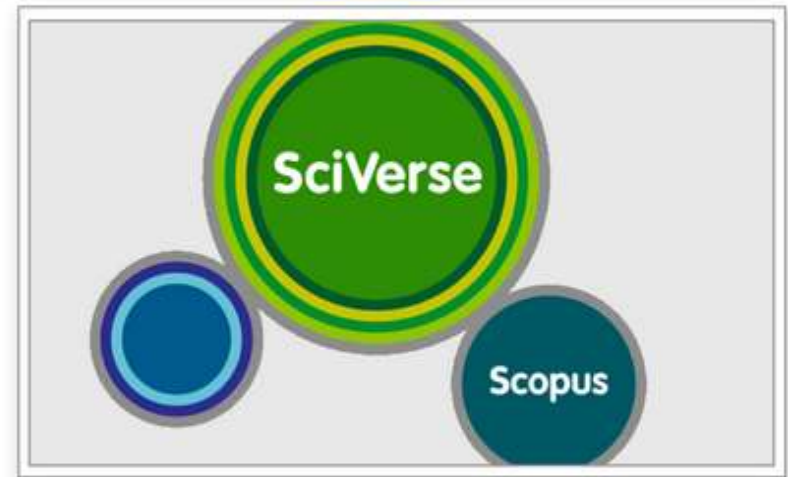
*Example API (Altmetric)*应用编程接口

See the API in action:

nature.com

Altmetric helped nature.com to power their article level metrics pages, which now display Altmetric's social media metrics and demographic information, as well as citation counts and downloads.

Altmetric for Scopus

Altmetric developed this sidebar app for Scopus, which displays altmetrics on Scopus article and abstract pages.

Other initiatives

Open Access: Beall's List (list of 'predatory' journals and publishers)
（ Beall's List：掠夺性OA期刊和出版社名单）

The list itself is controversial, but shows scrutiny to maintain high standards of integrity in publishing
有争议，但显示了通过监管维护出版品质
http://scholarlyoa.com/publishers/

Other initiatives

Retraction Watch （撤稿观察）

There have been some high-profile cases, e.g. Elsevier, BMC

www.retractionwatch.com

Publisher initiatives

- Recognition among publishers that making resources available for authors, editors and society partners will facilitate getting the best papers that match journal scope and criteria为作者、编辑和合作的学会提供资源，促进了解，以便出版社得到符合要求的优秀稿件
- Note the increase in volume of resources – often in multiple languages – available to authors from publishers' websites:
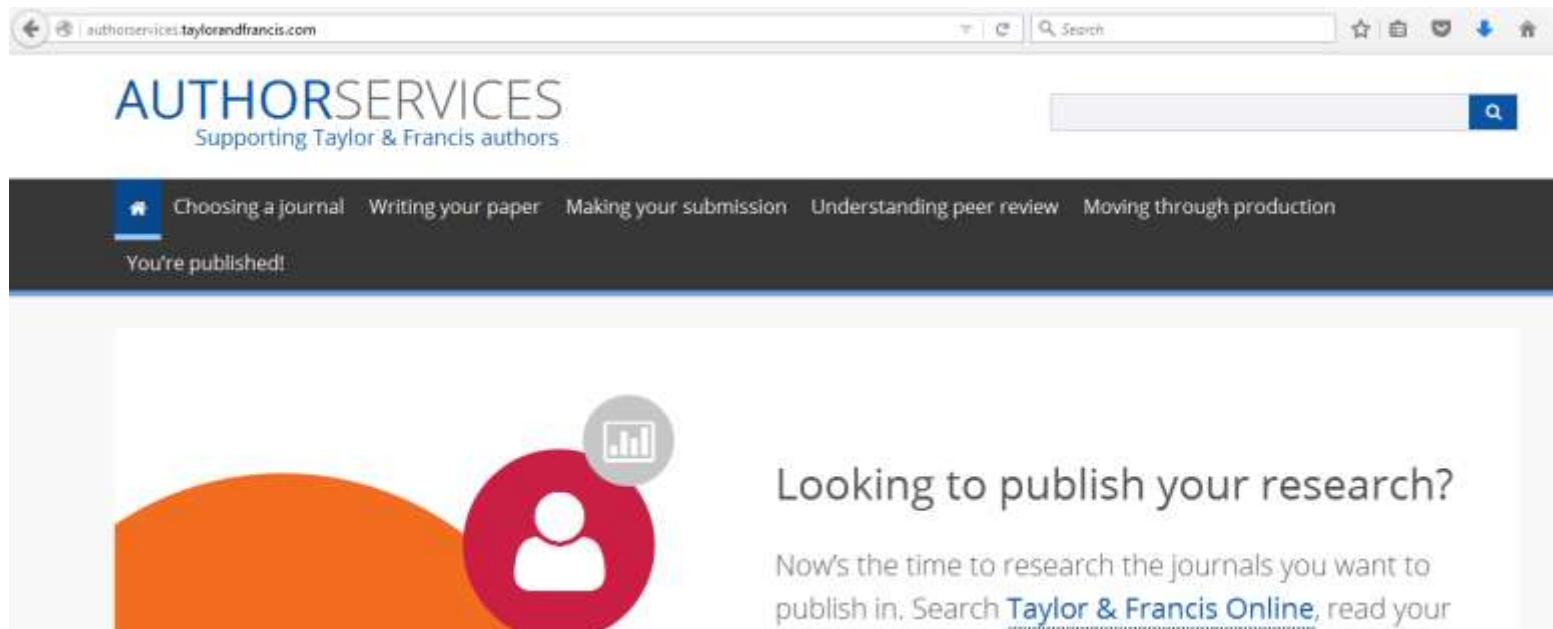
Publisher initiatives

Wiley enhances careers

Fostering business and professional development

Subjects

- Accounting
- Agriculture
- Arts & Architecture
- Business & Management
- Chemistry
- Computing
- Culinary & Hospitality
- Earth, Space & Environmental Sciences
- Economics
- Education

Resources

- Students
- Authors
- Instructors
- Librarians
- Societies
- Conferences
- Booksellers
- Corporations
- Institutions

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Publisher initiatives

Each journal has its own submission process and standards, so we suggest reviewing the "Author Guidelines" pages of individual journals that you are interested in submitting your work to. To locate this information, find the homepage of a specific journal on Wiley Online Library and then look for the "Author Guidelines" link in the left menu of that journal homepage.

Wiley Online Library: Authors looking to find journals for potential article submission can browse journal titles alphabetically, by subject area or by keyword on Wiley Online Library. Our next-generation content platform delivers access to over 4 million articles from 1,500 journals to a global audience of 16 million scientists, researchers, and scholars, with millions of downloads per month.

Author Guides: Expert information on general journal and book publishing processes, available as Author Guides and Frequently Asked Questions (FAQs).

Author Services: Register or sign in to your free Author Services account as a journal author to:

- Track the production status of an accepted article.
- Sign the license agreement for an accepted article.
- Add a second or further article to your profile if you are already registered.
- Gain free subscription access to your published article.
- Nominate up to 10 colleagues for free access to your article (most journals).
- Provide your co-authors' e-mail addresses so they can track their articles and receive free subscription access to the final published version.
- Complete the OnlineOpen order form after reviewing the OnlineOpen guidelines, should you be interested in this version of Wiley's Open Access programs.
- For further assistance please contact Wiley Author Support.

Additional Resources

- **Wiley Editing Services:** Assistance with English language editing, translations, manuscript formatting and figure preparation
- **Exchanges Blog:** Our ideas, research, and discussion blog at the crossroads of active authors, publishing experts, and those interested in writing
- **Best Practice Guidelines on Publishing Ethics:** New for 2014 from Wiley
- **To Our Authors:** A publication with news about, of interest to, and affecting Wiley authors

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Publisher initiatives

编辑服务

Also, services to help authors with editing and structuring their papers in English. (NB the Charlesworth example also with Chinese website version.)

Global collaboration 全球合作

STM publishers retain a direct an active interest in China and obtaining good papers and editorial links

The same is true of publishing services companies

Many opportunities to exchange ideas and collaborate
交流与合作
Useful resources available also at:
了解国际出版信息

    Society for Scholarly Publishing (sspnet.org)
    ALPSP (alpsp.org)
    UKSG (uksg.org)

Thank you!

Thank you for your time

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