

Trends in STM Publishing: Maximizing Impact

科技出版新趋势：如何扩大影响力



CUJS Conference,
December 2015,
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

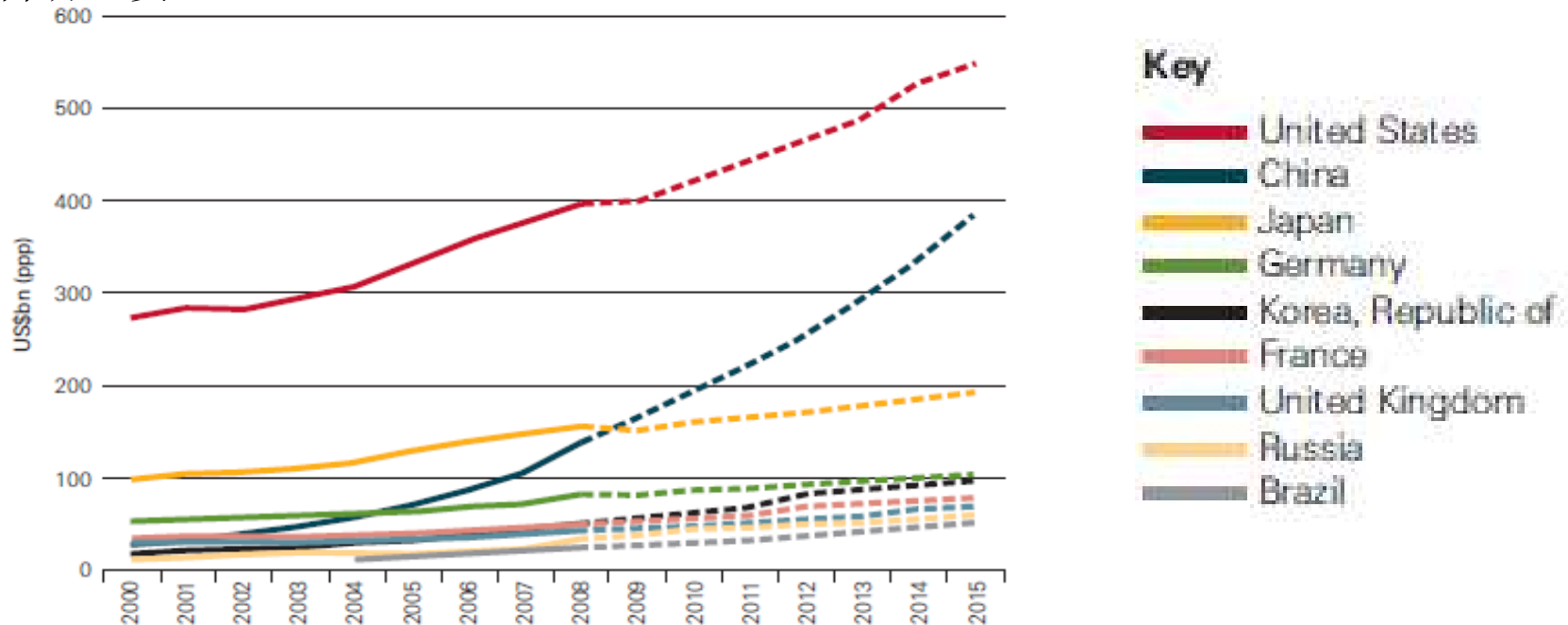
- Issues of authorship (vs guarantors) – identification of key contributors to the research and write-up.

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.

科研经费



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 	 BioRAFT 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

Key Performance Measures

Authors Using
Kudos

1,015

Publications
Explained

129

Publications
Shared

42

Kudos Publication
Page Views

55,604

Recently Explained Publications



Non-classical C-H...O hydrogen bonds stabilizing the structures of isatin derivatives

Explained on: 19-Nov-15 at 04:26



Crystal structure of tris(piperidinium) hydrogen sulfate sulfate

Explained on: 11-Nov-15 at 20:15



Structural analysis of ibuprofen binding to human adipocyte fatty-acid binding protein (FABP4)

Explained on: 04-Nov-15 at 02:06

More...

Recently Active Authors



Dr Peter Mueller

19-Nov-2015



Dr Kazuhito Kajiwar

19-Nov-2015



Dr Sundar T Vaidyanathan

19-Nov-2015



Mr Abhishek Kumar Gupta

18-Nov-2015

Recent Tweets



Mathias Senge

@mathiassenge



For a new structural chemistry paper by Keith see ... goo.gl/uvtkwA

6:38 PM - 17 Nov 2015

— Kudos

Crystal structure of [5- n - butyl-10-(2,5-dimethoxyphenyl)-2,3,7,8,13,12,17,18-octaethylporphyrin...



Crystal structure of [5- n -butyl-10-(2,5-dimethoxyphenyl)-2,3,7,8,13,12,17,18-octaethylporphyrinato]nickel(II)

[View on web](#)



Charmaine Arderne

@lopsycvb



See my latest publication at: goo.gl/5c4Dhq

7:46 PM - 5 May 2015

— Kudos

Charge assisted hydrogen bonding in benzimidazole salts on 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.

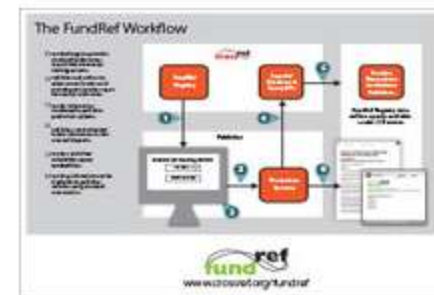
Example: FundRef

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



We make article level metrics easy.



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

科研合作与管理

ReadCube
(readcube.com)

The Ultimate Researcher Toolkit



Enhanced PDFs Personalized Recommendations Paper Management Tablet App Sync & Backup Watch Folders


Go Beyond the PDF.

A revolutionary way to read the article

- Optimized PDF viewing
- Supplements and related materials
- Clickable inline references
- Full Reference List



Mendeley
(mendeley.com)




MENDELEY

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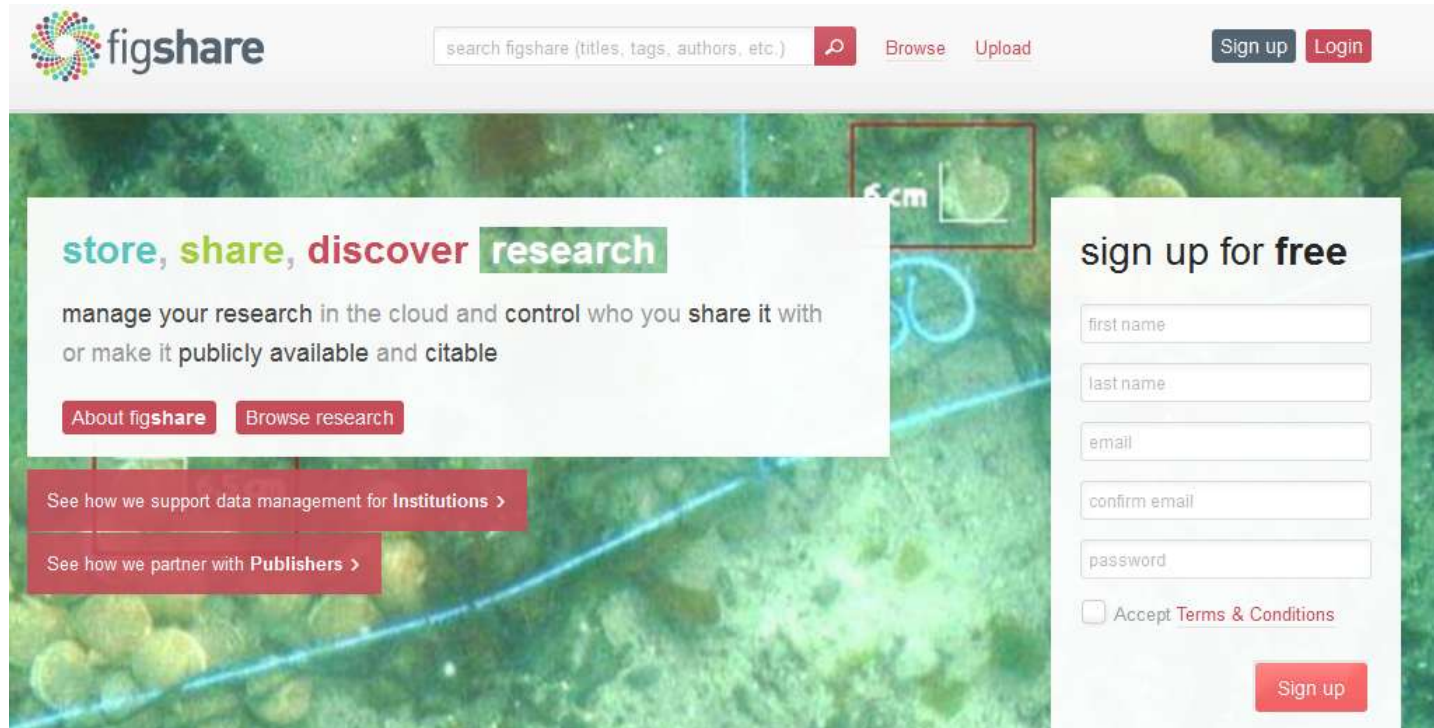
Five ways Mendeley helps you.

All your research in one place

Securely stored and accessible across devices, you can search and sort your references, documents and notes in one place - right down to the keyword you're looking for.



Tools for collaboration and managing research



The screenshot shows the figshare website homepage. At the top left is the figshare logo. To its right is a search bar with the placeholder text "search figshare (titles, tags, authors, etc.)" and a magnifying glass icon. Further right are links for "Browse" and "Upload". On the far right of the top navigation bar are "Sign up" and "Login" buttons. The main content area features a large background image of a green, textured surface with blue lines. Overlaid on this is a white box with the text "store, share, discover research" in colorful letters. Below this text is a paragraph: "manage your research in the cloud and control who you share it with or make it publicly available and citable". Underneath the paragraph are two red buttons: "About figshare" and "Browse research". To the right of the white box is a "sign up for free" section. It contains five input fields: "first name", "last name", "email", "confirm email", and "password". Below these fields is a checkbox labeled "Accept Terms & Conditions". At the bottom right of the sign-up section is a red "Sign up" button. At the bottom left of the main content area, there are two red buttons with white text: "See how we support data management for Institutions >" and "See how we partner with Publishers >".

figshare

search figshare (titles, tags, authors, etc.)

Browse Upload

Sign up Login

store, share, discover research

manage your research in the cloud and control who you share it with
or make it publicly available and citable

About figshare Browse research

sign up for free

first name

last name

email

confirm email

password

☐ Accept Terms & Conditions

Sign up

See how we support data management for Institutions >

See how we partner with Publishers >

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.

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JoVE Journal (Impact Factor 1.325)

- (B) Biology
- (N) Neuroscience
- (M) Medicine
- (BE) Bioengineering
- (ENG) Engineering
- (I) Immunology and Infection
- (C) Chemistry
- (Bh) Behavior
- (E) Environment
- (DB) Developmental Biology

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JoVE Science Education

- (SE) Basic Biology
- (SE) Advanced Biology
- (SE) Psychology
- (SE) Environmental Sciences
- (SE) Chemistry

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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

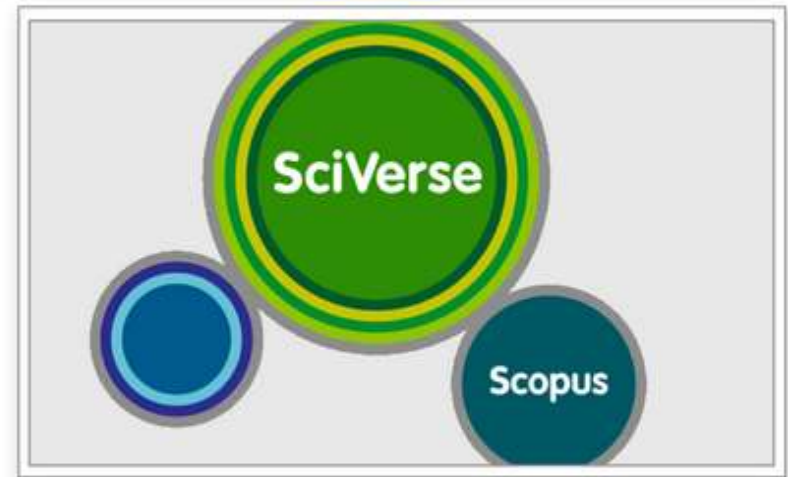
See the API in action:

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/>

The screenshot shows the homepage of the Scholarly Open Access website. The header is blue with the title "Scholarly Open Access" and the subtitle "Critical analysis of scholarly open-access publishing". Below the header is a navigation bar with links: Home, About the Author, Disclaimer, LIST OF PUBLISHERS, and LIST OF STANDALONE JOURNALS. A "Other pages" link is also visible. The main content area is titled "LIST OF PUBLISHERS" and features a section for "Beall's List: Potential, possible, or probable predatory scholarly open-access publishers". The text describes the list as a collection of questionable publishers and provides advice on how to use it. A search box is located on the right side of the page. Below the search box is a "RECENT POSTS" section with a list of recent articles. At the bottom right, there is an "ARCHIVES" section with a "Select Month" dropdown menu.

Scholarly Open Access
Critical analysis of scholarly open-access publishing

Home About the Author Disclaimer LIST OF PUBLISHERS LIST OF STANDALONE JOURNALS

Other pages

LIST OF PUBLISHERS

Beall's List:

Potential, possible, or probable predatory scholarly open-access publishers

This is a list of questionable, scholarly open-access publishers. We recommend that scholars read the available reviews, assessments and descriptions provided here, and then decide for themselves whether they want to submit articles, serve as editors or on editorial boards. The criteria for determining predatory publishers are [here](#).

We hope that tenure and promotion committees can also decide for themselves how importantly or not to rate articles published in these journals in the context of their own institutional standards and/or geocultural locus. We emphasize that journal publishers and journals change in their business and editorial practices over time. This list is kept up-to-date to the best extent possible but may not reflect

Search

RECENT POSTS

- o "No Author Fee" Open-Access Journal Bills Author for His Accepted Paper
- o Predatory Publishers Love Academia.edu
- o Is this 17 Year-Old Korean Ph.D. Student a Plagiarist?
- o Be Careful Using NCBI Databases as Journal Whitelists
- o Two Bizarre New OA Publishers Help Mark the Decline of Scholarly Publishing

ARCHIVES

Select Month

Other initiatives

Retraction Watch (撤稿观察)

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

www.retractionwatch.com

Retraction Watch

Tracking retractions as a window into the scientific process

3-D printing paper accidentally includes secrets

without comments

A paper on 3-D printing has been pulled because it "inadvertently" included some sensitive material.

We're not sure which parts of the paper were the specific problem. But the sensitive material may have something with how to improve the surfaces of 3-D printed products, which is the subject of "Feasibility of using Copper(II)Oxide for additive manufacturing."

Here's what [the paper](#), published in the *International Journal of Precision Engineering and Manufacturing* contains, according to the abstract:

“

Additive manufacturing, in spite of its ever wider application range, is still plagued by issues ranging from accuracy to surface finish. In this study, to address the latter issue, the feasibility of using Copper(II)Oxide powder with a polymer binder deposited through a Fused Deposition Modeling (FDM) 3D printing technique is explored.

Here's the [retraction note](#):

[Read the rest of this entry »](#)



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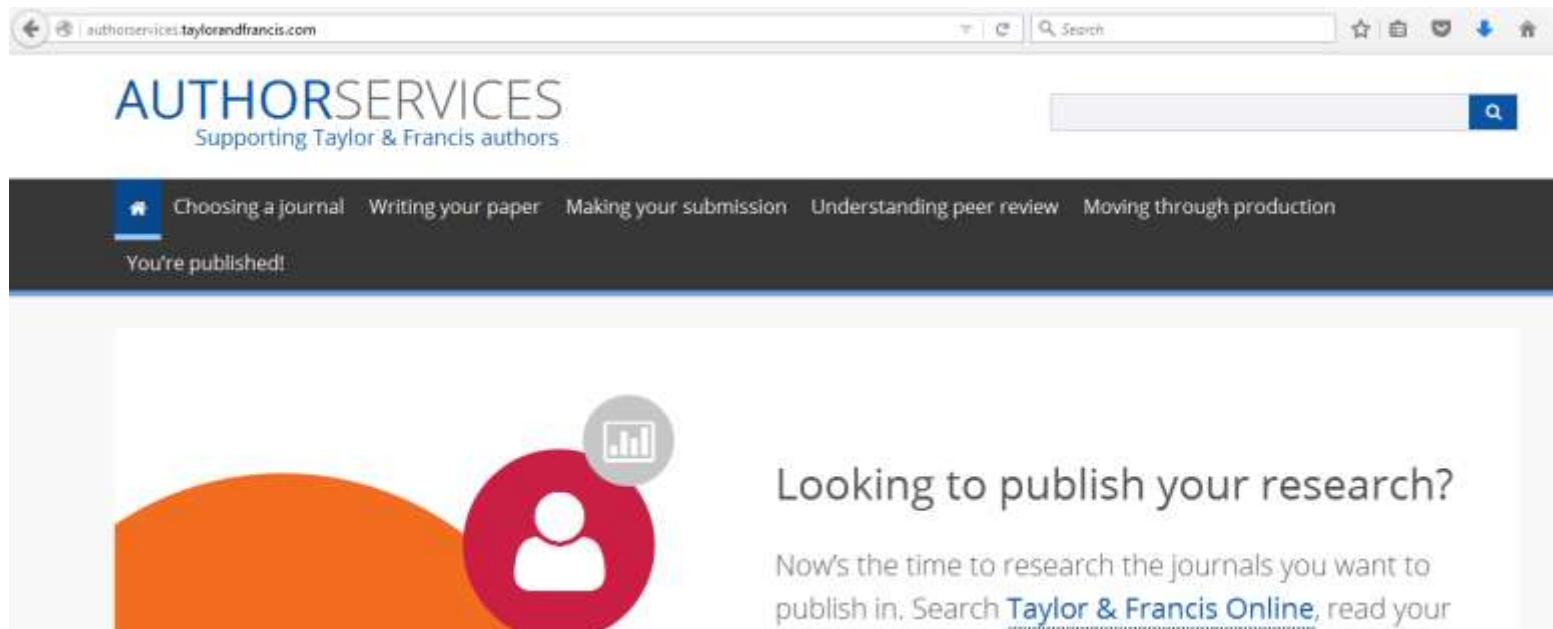
[The Retraction Watch FAQ, including comments policy](#)

[The Retraction Watch Transparency Index](#)

[The Retraction Watch](#)

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

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

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.)



Welcome to *The Charlesworth Group* Author Services

Welcome to *The Charlesworth Group* Author Services website. Here you'll find information about the services we provide for authors, along with useful information for researchers and academics who are working to get their papers published.

If you're a publisher and would like to improve the quality of the submissions you receive to save you and your editors time and work, take a look at **our referrals scheme** and see how it could benefit you.

Our highly trained **editors** are all native English speakers with advanced degrees in a wide variety of subject areas and specialize in working with authors who are submitting articles in non native English. If you have any questions, **contact us**.

[Register And Submit A Manuscript](#)

[Log in](#)

Global collaboration 全球合作

STM publishers retain a direct and 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

Caitlin Meadows
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The Charlesworth Group

caitlin.meadows@charlesworth-group.com

Skype: caitlin201272

（翻译：清华大学出版社期刊中心 田文博）