How can the Library support the Researcher

CERN-UNESCO School on Digital Libraries
October 2018
Catering to researchers’ many hats

- Author
- Reviewer
- Collaborator
- Teacher
- Reader
- Researcher
- Editor
Engaging across the research workflow

“Enabling Research”
- Develop Strategy
- Recruit/evaluate researchers
- Secure Funding
- Establish partnerships
- Manage facilities

“Doing Research”
- Search, discover, read, review
- Collaborate & network
- Experiment
- Synthesize/Analyze

“Sharing Research”
- Manage Data
- Publish and disseminate
- Commercialize
- Promote
- Have impact

1. Help me stay on top of my field
2. Help me evaluate & showcase my work
3. Make my peer review more rewarding
4. Make my editorial duties easier
5. Help me read and stay up to date on the go
6. Help me evaluate, read articles and methods
7. Help me write papers
8. Help me publish more effectively
9. Help me connect with the right people
10. Help me evaluate other researchers
11. Help me get funding
12. Help me store, manage, and publish data, and get credit for it
13. Help me find a job
**Key concerns for researchers**

<table>
<thead>
<tr>
<th>Publication Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Review</td>
</tr>
<tr>
<td>Format of the Article</td>
</tr>
<tr>
<td>Access</td>
</tr>
<tr>
<td>Text Mining &amp; Smart Content</td>
</tr>
<tr>
<td>Combining Data</td>
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</tbody>
</table>
Trends in publishing: moving online

- **Move online**
  - Electronic submission
    - → increased volume of submissions
  - Electronic access
    - → easier search, higher usage, easy sharing

- **Reviewing models**
  - Increased transparency
  - Collaborative review
  - Reviewer bias

- **What is publishable?**
  - Full length articles, review articles, opinion papers
  - Data
  - Method developments

- **How to evaluate impact?**
  - Citation-based metrics
  - Usage
  - sharing
Digital solutions and tools

Right content, right context, right time
Engaging and supporting the Academic Researcher

- Research Impact Metrics
- Ethics & Predatory Journals
- Research Data Management
Research Impact Metrics
Productivity & performance metrics

Author Growth percentages 2012–2016

Research output: Growth percentage 2012–2016

Field-weighted citation impact 2012–2016

International collaboration 2012–2016

Data from Scival.com
Journal quality metrics

What is Journal Quality?

“Quality” is in the Eye of the Beholder

- Authors: proofs, speed
- Editors: production, e-submission system
- Societies: distribution
- Reviewers: language
Which Journal is the Best Journal?

<table>
<thead>
<tr>
<th>Journal</th>
<th>Impact Factor 2012*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>6.125</td>
</tr>
<tr>
<td>Nature Genetics</td>
<td>38.597</td>
</tr>
<tr>
<td>Annals of Mathematics</td>
<td>3.027</td>
</tr>
<tr>
<td>Computers &amp; Operations Research</td>
<td>2.374</td>
</tr>
<tr>
<td>Progress in Energy and Combustion Science</td>
<td>17.778</td>
</tr>
<tr>
<td>Addiction Biology</td>
<td>5.914</td>
</tr>
<tr>
<td>Remote Sensing of Environment</td>
<td>6.144</td>
</tr>
</tbody>
</table>

*Journal Citation Reports 2013

Answer: All of them are the best journals in their subject areas.

With IF, journals from different subject fields CANNOT be compared.
Impact Factor varies per Subject Area

- Fundamental Life Sciences
- Neuroscience
- Clinical Medicine
- Pharmacology & Toxicology
- Physics
- Chemistry & Chemical Engineering
- Earth Sciences
- Environmental Sciences
- Biological Sciences
- Materials Science & Engineering
- Social Sciences
- Mathematics & Computer Sciences

Mean Impact Factor (1998)
Tools to assess journal quality

- Impact Factor
- H-Index
- Online usage of papers
- Scimago Journal Rank (SJR)
- Cite score
- .......

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Journal Metrics in Scopus
A basket of different metrics

Introducing CiteScore metrics for serials
We are proud to introduce CiteScore metrics from Scopus – comprehensive, current and free metrics for serial titles in Scopus.

Refine by subject areas... Search titles... 2015

Showing 22,256 titles

1. Ca-A Cancer Journal for Clinicians
   Hematology
   CiteScore: 66.45, 99%, 1/117, 8,904, 134, 63%, 50.569, 32.242

2. Chemical Reviews
   General Chemistry
   CiteScore: 45.92, 99%, 1/371, 31,824, 693, 98%, 11.241, 19.143

3. Annual Review of Immunology
   Immunology and Allergy
   CiteScore: 41.20, 99%, 1/162, 3,049, 74, 99%, 9.071, 32.720
Including our new metric CiteScore
Alternative Metrics play an increasingly important role

‘Publish ...be cited ....be mentioned ....or Perish’
Ethics
Publish AND Perish! – if you break ethical rules

• International scientific ethics have evolved over centuries and are commonly held throughout the world.

• Scientific ethics are not considered to have national variants or characteristics – there is a single ethical standard for science.

• Ethics problems with scientific articles are on the rise globally.

Who is really responsible for Ethics?

All Stakeholders

Authors

Institutions/Companies/Agencies/Funding Bodies

Publishers/Journal Editors

All Elsevier journals are members of: COPE COMMITEE ON PUBLICATION ETHICS
The most serious issues to avoid

These are the 3 most common forms of ethical misconduct that the research community is challenged with:

1. Fabrication
   Making up research data

2. Falsification
   Manipulation of existing research data

3. Plagiarism
   Previous work taken and passed off as one’s own
Plagiarism high amongst ethics issues

Sample of cases reported to Elsevier Journals publishing staff
Plagiarism detection: CrossCheck

- Consists of database of published content and plagiarism-detecting software from Iparadigms
- Unique database: 50 million+ articles from 175,000+ journals and books from 300+ publishers
- Expert interpretation still essential: CrossCheck shows similarity but not context or intent
- Shortcomings: risk of false positives & false negatives - There is no magic number!!
Educating authors on the do’s & don’ts

https://researcheracademy.elsevier.com/publication-process/ethics

- Online education program
- Teaching the “ground rules” and the consequences when they’re broken
- Interviews, quarterly webinars, quizzes, factsheets, FAQ
Predatory Journals: Identifying the Wolf in Sheep’s Clothing

“Content published in journals whose publishers exploit the author-pays model for their own profit. Typically, these publishers have a low article acceptance threshold, with a false-front or non-existent peer review process, affecting content providers across the globe.”

Predatory Journals: Evaluation

*Reputation is key*

**Indication of a good journal:**
- Member of ethical bodies such as COPE (Committee on Publication Ethics)
- Peer Review
- Editorial advisory board
- Online submission system
- Comes from reputable publishers or societies
- Has ISI/Scopus/regional indexation
- Publishes reputable authors

**Be careful when:**
- Publishers promise an almost immediate acceptance of manuscripts for a fee; with no, poor or fake peer review
- Websites and journal titles look remarkably similar to well known journal brands
- Many of these predatory publishers name themselves "Institutes," "Associations," or "Centers"
- The journals are often mega-journals, frequently lacking recent/past content
- The publishers spam authors via large email campaign; often no match with subject field

*Remember to be careful as “A paper can only be published once”*
Research Data Management
RDM best practices in Kenya

We have checked publications from Kenya from 2013 to date in Scopus.

Of 14,045 publications (with a DOI), 527 (~3.8%) are linked to 789 datasets, according to Scholix (article-data linking initiative).

Source: Scopus, Scholix, data extracted on September 26, 2018
RDM is growing very fast in Kenya

Source: SciVal, data extracted on September 26, 2018 – CAGR = Compound Annual Growth Rate
The research life cycle depends heavily on two data life cycles

Research Lifecycle

1. Lab data
   - Discover data, people, methods & protocols
   - Prepare, reproduce, re-use & benchmark
   - Collect, analyze & visualize

2. Open data: data publicly available

- Design
  - Find Topic
  - Identify gaps
  - Plan & Fund

- Execute

- Publish
  - Store & Share
  - Disseminate
Mendeley Data

A modular, cloud-based platform designed for research institutions, to manage the entire lifecycle of research data
**Mendeley Data already** integrates through open APIs with the global Research Data Management ecosystem.
Delivering more value as a holistic solution: 
Mendeley Data integrates with other Elsevier solutions

- **Scopus**: Notify new articles to Monitor for data sharing compliance
- **Pure**: Sync datasets, projects, grants, equipment, showcase on portal
- **SciVal**: Produce and consume data metrics
- **ScienceDirect**: Submit / link datasets with publications
- **EVISE EES**: Users & Newsfeed
- **bepress**: Datasets

Existing integration: 
Planned integration: 

Existing integration: 
Planned integration:
Want to know more?

https://data.mendeley.com

https://www.hivebench.com

https://www.elsevier.com/solutions/mendeley-data-platform

https://www.elsevier.com/authors/author-services/research-data/mendeley-data-for-journals
THANK YOU!

Research Impact Metrics | Ethics | Predatory Journals | New Initiatives