Scholarly Communication in a Disrupted World
Topics

• Disruptions in Scholarly Communications
• Responses of Academic Community
• Nature of Scholarly Communications
• Solutions?
Disruptions in SC

- 1660 ~ WWII
- 1948 Butterworth-Springer (Pergamon Press)
- 1959 Pergamon ตีพิมพ์ 40 ชื่อ Elsevier 10 ชื่อ
- 1965 Pergamon ตีพิมพ์ 150 ชื่อ

Control access to the Scientific Literature → Control Science

Profits of Pergamon Press ~ 40-47%
Disruptions in SC

• 1955 Citation Index and IF by Eugene Garfield
  “IF is like Nuclear Energy”

• 1970s Lock scientists’ careers into the publishing system
  - Publish in CNS (Cell / Nature / Science)

• Publish more journals → More Revenue
  “วารสาร คือ perpetual financing machine”

• 1975-1985 ราคาวารสารเพิ่มขึ้นเท่าตัว
Disruptions in SC

- 1988 “Scientists are not as price-conscious as other professionals, mainly because they are not spending their own money.”
- 1991 Elsevier acquired Pergamon Press and controlled more than 1000 journal titles.
- 1994 Elsevier had raised its prices by 50%.
- 1995 Internet
- 1998 Big Deal
Change of Journal Price (Print)

Science and Technology
766.02% increase in 29 years

https://www.nii.ac.jp/content/justice/documents/JournalPrice.xlsx
Change of Journal Price (Print)

Social Science and Humanity

900.89% increase in 29 years

https://www.nii.ac.jp/content/justice/documents/JournalPrice.xlsx
Change of Journal Price (E)

Science and Technology
29.04% increase in 7 years

2,079 for Print
2,895 for Print

https://www.nii.ac.jp/content/justice/documents/JournalPrice.xlsx
Social Science and Humanity

37.14% increase in 7 years

https://www.nii.ac.jp/content/justice/documents/JournalPrice.xlsx
Disruptions in SC
Summary or Facts

• Scholarly publishing is **monopoly or oligopoly** in nature.
• Profits margin 30~40%
• Subscription cost rose 7-9 folds in 29 years.
• **Driving forces.**
  – Publish or Perish policy in institutions.
  – University Rankings
Disruptions in SC
Summary or Facts

Scholarly Publishing Is Now Behind A Billion-Dollar Paywall
Scholarly Communications

**WHAT IS THE PROBLEM?**

- university + grant
- pay faculty to do research & report on results in articles
- faculty give away articles & copyright to publishers for
  (and other researchers peer review for free)
- & publishers rake in all the (and it is BIG
  Elsevier’s profit margin exceeded Google’s!
- ... and many students, researchers, and others still can’t get the articles they need & libraries cannot afford many journals.

http://justpublics365.commons.gc.cuny.edu/files/2014/10/Problem-infographic3.jpg
Scholarly Communication

• Scientists work.
• Scientists publish.
• Scientists review.
• Scientists are finally charged.
Responses of Academic Community

• 1991 arXiv preprint server
• 1998 SPARC (Scholarly Publishing and Academic Resources Coalition)
• 2000 PubMed Central
• 2002 BOAI
• 2003 PLoS
• 2006 SCOAP³ initiated APC funding
• 2008 - NIH Public Access Policy
  - OASPA (The Open Access Scholarly Publishers Association)
Responses of Academic Community

- 2008 Big Deal Cancellation
- 2011 Shadow Libraries?
  - #ICanHazPDF
  - Sci-Hub
- 2012 Cost of Knowledge
- 2015 OA2020 Roadmap
Responses of Academic Community

• 2017 “Publish and Read” model (Projekt DEAL)
• 2018 September - “Plan S” by cOAlition S
• 2018 “Read and Publish” model
• 2018 December – China “immediate OA”
• 2019 UC Dropped Elsevier contract...
Solutions?

• Publishers’ friendlier business practice?
  – Cost transparency
  – Profit margin
• Library consortium
• Transform to Open Access
• Shadow Libraries?
Scholarly Publishing

- Print era
- Internet era
  - Anytime, Anywhere?
  - Paywall
  - Higher and higher price! Why?
- Open Access Publishers
Library Consortia
Other Library Consortia
JISC Collections

- Established as a body in 2006 by JISC (Joint Information Systems Committee)
- Has over 500 members
- Steering Committee 6 members, working group 18 members
- Supported by HEFCE (Higher Education Funding Council for England)
- Develops support such as Chest, KB+, elcat, JUSP
- Purchases 120 journal collections/subscription

https://www.jisc-collections.ac.uk/
Couperin
Consortium universitaire de publications numériques

• ก่อตั้งเมื่อปี 1999
• มีสมาชิกกว่า 200 แห่ง
• คณะกรรมการประกอบด้วยตัวแทนจากหน่วยงานที่เป็นสมาชิก มีพนักงานประจำสำนักงาน 3 คน
• สมาชิกจ่ายค่าบำรุงปีละ 300-800 ยูโร
• ทำหน้าที่เจรจากับสำนักพิมพ์ในภาพรวม
• ส่งเสริมความเท่าเทียมในการเข้าถึงความรู้
• พัฒนาฐานข้อมูลภาษาฝรั่งเศส

http://www.couperin.org/
KESLI
Korea Electronic Site License Initiative

- ก่อตั้งเมื่อปี 1999 ภายใต้ KISTI (Korea Institute of Science and Technology Information)
- มีสมาชิกประมาณ 540 แห่ง รวมทั้งห้องสมุดประชาชน
- สนับสนุนการดำเนินงานโดยรัฐบาล แต่การทำสัญญาและการจ่ายค่าฐานข้อมูล สมาชิกแต่ละแห่งดำเนินการเอง
- เป็นเครือข่ายห้องสมุดระดับชาติ

http://www.kesli.or.kr
Japan Alliance of University Library Consortia for E-Resources

https://www.nii.ac.jp/content/justice/
What is JUSTICE

- A new consortium created through the consolidation of the Japan Association of National University Libraries (JANUL) Consortium and the Private and Public University Libraries Consortium (PULC)
- Established in April 2011, backed by the National Institute of Informatics (NII)
- Opt-in consortium
- Approximately 500 participating libraries
What is JUSTICE

Japan Alliance of University Library Consortia for E-Resources (JUSTICE)

- Steering Committee: 14 members
- Cooperating Librarians: 21 members
- Secretariat
  - Manager, Library Liaison Office (full-time): 1 person
  - Full-time personnel: 1 person
  - Full-time personnel: 1 person
- OJT trainees: a few persons to be assigned

NII
- Cyber Science Infrastructure Development Department

Cooperation Promotion Council

Japanese Coordinating Committee for University Libraries
- Japan Association of National University Libraries (JANUL)
- Public University Library Association
- Japan Association of Private University Libraries

Transfer operations
- JANUL Consortium
- Private and Public University Libraries Consortium (PULC)
JUSTICE's Missions

1) **Negotiation** and finalization of terms and conditions with publishers regarding contract and use of **e-resources**

2) Enhancing collections of journal **backfiles** and other electronic resources

3) Joint utilization of **Electronic Resources Management System (NII-REO)**

4) Long-term **preservation** and ensuring access of electronic resources (Participate in CLOCKSS)

5) Fostering e-resource librarians growth

6) Public relations, information collection and other activities
Recommendation for Thailand?

A systematic, well organized National Consortium

- Data analysis
- Establish policy & guidelines
- Resource sharing, discovering, preservation...
- Negotiation
- HR development
Transform to Open Access?

- **Gold Open Access**: research outputs that are publications in an open access journal,
- **Green Open Access**: research outputs that are publications in a journal that are also available in an open access repository,
- **Hybrid Open Access**: research outputs that are publications in a subscription journal that are open access with a clear license,
- **Bronze Open Access**: research outputs that are published in a subscription journal that are open access without a license.
Facts about Open Access?

Percentage of Open Access publications in total publications, 2009-2018

Source: Consortium's own analysis of Scopus and Unpaywall databases

### Facts about Open Access?

Percentage of Open Access publications in total publications, 2009-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Not OA</th>
<th>OA</th>
<th>Not OA %</th>
<th>OA %</th>
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<tbody>
<tr>
<td>2009</td>
<td>807,672</td>
<td>361,932</td>
<td>69.06%</td>
<td>30.94%</td>
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<tr>
<td>2010</td>
<td>824,427</td>
<td>389,100</td>
<td>67.94%</td>
<td>32.06%</td>
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<tr>
<td>2011</td>
<td>876,706</td>
<td>445,341</td>
<td>66.31%</td>
<td>33.69%</td>
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<tr>
<td>2012</td>
<td>917,504</td>
<td>503,875</td>
<td>64.55%</td>
<td>35.45%</td>
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<tr>
<td>2013</td>
<td>971,428</td>
<td>569,939</td>
<td>63.02%</td>
<td>36.98%</td>
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<tr>
<td>2014</td>
<td>1,010,275</td>
<td>625,503</td>
<td>61.76%</td>
<td>38.24%</td>
</tr>
<tr>
<td>2015</td>
<td>1,017,187</td>
<td>677,841</td>
<td>60.01%</td>
<td>39.99%</td>
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<tr>
<td>2016</td>
<td>1,044,540</td>
<td>731,812</td>
<td>58.80%</td>
<td>41.20%</td>
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<tr>
<td>2017</td>
<td>1,086,564</td>
<td>736,656</td>
<td>59.60%</td>
<td>40.40%</td>
</tr>
<tr>
<td>2018</td>
<td>1,208,464</td>
<td>684,636</td>
<td>63.84%</td>
<td>36.16%</td>
</tr>
</tbody>
</table>

Number of Funders with policies on open access - publishing, by type of mandate and country

Source: Sherpa-Juliet - Reference date: October 21st, 2019

OPEN-ACCESS LEADERS
Journal articles with Indonesian authors are most likely to be free to read online, a study suggests.

Free to read*: In open-access (OA) journal  OA in hybrid journal  Free at publisher’s site  Free only in repository

Total proportion of papers found in repositories:

**TOP OA COUNTRIES**

- **Indonesia**
- **Colombia**
- **Bangladesh**
- **Brazil**
- **Croatia**
- **United Kingdom**

Proportion of free-to-read papers published in 2017 (%)

*Top-six ranking counts countries with more than 5,000 articles in Crossref database

https://www.nature.com/articles/d41586-019-01536-5
15 May 2019
OPEN-ACCESS LEADERS

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Free to read*:  
- In open-access (OA) journal
- OA in hybrid journal
- Free at publisher’s site
- Free only in repository

Total proportion of papers found in repositories:

REGIONAL OA TRENDS

- Europe
- Africa
- World
- United States
- Asia
- China

Proportion of free-to-read papers published in 2017 (%)

*Top-six ranking counts countries with more than 5,000 articles in Crossref database

https://www.nature.com/articles/d41586-019-01536-5
15 May 2019
Go Open Access?

Subscription model → Open Access

ENDORSE OA2020

CREATE A ROADMAP

HAVE IMPACT

https://oa2020.org
Shadow Libraries

- Sci-Hub
- ZLibrary
- pdfdrive
- #ICanHazPDF
- Academia
- ResearchGate
- …

September 2015 – February 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
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<td>China</td>
<td>4,456,076</td>
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<tr>
<td>India</td>
<td>3,414,581</td>
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<tr>
<td>Iran</td>
<td>2,631,035</td>
</tr>
<tr>
<td>Russia</td>
<td>1,521,434</td>
</tr>
<tr>
<td>United States</td>
<td>1,150,963</td>
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</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>2,233</td>
</tr>
<tr>
<td>Laos</td>
<td>211</td>
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<tr>
<td>Malaysia</td>
<td>350,187</td>
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<tr>
<td>Philippines</td>
<td>87,035</td>
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<tr>
<td>Singapore</td>
<td>72,306</td>
</tr>
<tr>
<td>Indonesia</td>
<td>729,656</td>
</tr>
<tr>
<td>Thailand</td>
<td>55,661</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,297,289</strong></td>
</tr>
</tbody>
</table>

Scholarly Communications

The Publication Cycle

Creation
Research gets proposed, funded, and reported on.

Evaluation
Academic works are evaluated for quality and edited by their peers.

Publication
A publisher provides editing, layout, and publication services.

Dissemination and Access
Works are distributed in print or online, through libraries, retailers, and the web.

Preservation
Copies or versions of the work may be saved for posterity.

Reuse
Works get read, cited, and recombined.
Scholarly Communications

∥

Sharing for Learning

∥

For the goods of mankind