SUSTAINING THE KNOWLEDGE COMMONS:

APC, SUBJECT, CONTENT & IMPACT FACTOR

Sustaining the Knowledge Commons
sustainingknowledgecommons.org
A SSHRC Insight Development Project

Heather Morrison & César Villamizar
(presenters)
with Jihane Salhab & Alexis Calvé-Genest
CAIS Conference, June 4 2015, Ottawa Ontario

Université d’Ottawa | University of Ottawa
École des sciences de l’information / School of Information Studies
http://arts.uottawa.ca/sis/
ABOUT SUSTAINING THE KNOWLEDGE COMMONS

• Knowledge commons
• Macro transition to OA
• OA APCs
• Resource Requirements for small scholar-led publishers
• Purpose: Assisting university libraries to take better decisions.

• Directory of Open Access Journals (DOAJ) 10 K+

• Data collected in Dec 2013 (pilot), May 2014 and May 2015

• OA APC article published in February 2015 on the Multidisciplinary Digital Publishing Institute (MDPI)
OA APCS PROJECT OVERVIEW

- 2/3 of OA journals do not charge OA APCs
- 1/3 of journals listed in DOAJ do have APCs
- Average APC of $964 / mode APC of $0
- 61% of publishers are commercial in nature
- 80% offer one or more variations on pricing

sustainingknowledgecommons.org
A SSHRC Insight Development Project
Heather Morrison, & César Villamizar

Université d'Ottawa | University of Ottawa
École des sciences de l'information / School of Information Studies http://arts.uottawa.ca/sis/
SUBJECT CORRELATION

- DOAJ uses Library of Congress Classification

20 main subjects

- Agriculture
- Law
- Auxiliary sciences of history
- Medicine
- Bibliography. Library science. Information resources
- Military Science
- Education
- Music and books on Music
- Fine Arts
- Naval Science
- General Works
- Philosophy. Psychology. Religion
- Geography. Anthropology. Recreation
- Political science
- History (General) and history of Europe
- Science
- History America
- Social Sciences
- Language and Literature
- Technology

https://doaj.org/subjects
- DOAJ Journals have 400+ sub classifications
- 94% of the DOAJ journals have at least two subjects assigned (main and sub classification)
- 10% have more than 6 subjects

https://doaj.org/subjects
Subject Correlation - CESAR

- Conducted an analysis of subjects in DOAJ using Statistic Frequency and Coding
- 985 distinct or unique combination of subjects
- Top 10

<table>
<thead>
<tr>
<th>Subject</th>
<th># of Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Works</td>
<td>502</td>
</tr>
<tr>
<td>Medicine (General), Medicine</td>
<td>487</td>
</tr>
<tr>
<td>Education (General), Education</td>
<td>290</td>
</tr>
<tr>
<td>Electronic computers, Computer science, Instruments and machines, Mathematics, Science</td>
<td>264</td>
</tr>
<tr>
<td>Social sciences (General), Social Sciences</td>
<td>250</td>
</tr>
<tr>
<td>Mathematics, Science</td>
<td>225</td>
</tr>
<tr>
<td>Biology (General), Science</td>
<td>193</td>
</tr>
<tr>
<td>Public aspects of medicine, Medicine</td>
<td>183</td>
</tr>
<tr>
<td>Business, Commerce, Social Sciences</td>
<td>178</td>
</tr>
</tbody>
</table>

sustainingknowledgecommons.org
A SSHRC Insight Development Project
Heather Morrison, & César Villamizar

Université d’Ottawa | University of Ottawa
École des sciences de l’information / School of Information Studies http://arts.uottawa.ca/sis/
SUBJECT CORRELATION

- Analyzed other subject classifications of DOAJ subjects
  - 17 subjects, Recoded into 8 subjects (Solomon & Björk, 2012)
  - 28 subjects (Crawford, 2014)

- Compared with other classification of disciplines
SUBJECT CORRELATION

- Phase 1: Code 130 distinct subjects
  - 19 subjects were coded in 17 subject categories
  - Used the 17 subject classification to code 111 subjects
  - Reorganized and grouped subjects in 13 categories

- Phase 2: Code 855 distinct subjects using the 13 categories

- Reorganized and grouped subjects in 11 categories
SUBJECT CORRELATION

Final subject classification available

http://dataverse.scholarsportal.info/dvn/dv/oaap

<table>
<thead>
<tr>
<th>#</th>
<th>Subject</th>
<th># Journals</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medicine</td>
<td>2,235</td>
<td>23.02%</td>
</tr>
<tr>
<td>2</td>
<td>Social Sciences</td>
<td>1,984</td>
<td>20.44%</td>
</tr>
<tr>
<td>3</td>
<td>Humanities</td>
<td>1,360</td>
<td>14.01%</td>
</tr>
<tr>
<td>4</td>
<td>Technology and Engineering</td>
<td>970</td>
<td>9.99%</td>
</tr>
<tr>
<td>5</td>
<td>Physical Sciences and Math</td>
<td>666</td>
<td>6.86%</td>
</tr>
<tr>
<td>6</td>
<td>Biology and Life Sciences</td>
<td>664</td>
<td>6.84%</td>
</tr>
<tr>
<td>7</td>
<td>Education</td>
<td>596</td>
<td>6.14%</td>
</tr>
<tr>
<td>8</td>
<td>General Works</td>
<td>502</td>
<td>5.17%</td>
</tr>
<tr>
<td>9</td>
<td>Agriculture</td>
<td>414</td>
<td>4.26%</td>
</tr>
<tr>
<td>10</td>
<td>Law</td>
<td>183</td>
<td>1.89%</td>
</tr>
<tr>
<td>11</td>
<td>Science General</td>
<td>134</td>
<td>1.38%</td>
</tr>
</tbody>
</table>

sustainingknowledgecommons.org
A SSHRC Insight Development Project
Heather Morrison, & César Villamizar

Université d'Ottawa | University of Ottawa
École des sciences de l’information / School of
Information Studies http://arts.uottawa.ca/sis/
CONTENT CORRELATION

- Why? Not necessary economies of scale – introductory pricing

- DOAJ article content 2004 – 2013 strong positive correlation with amount of APC but

- DOAJ article count and actual article count bear little resemblance and getting worse in the short term and

- Crawford actually counted the articles (English-language) – early work available – weak positive correlation
IMPACT FACTOR (IF) AND DOAJ

- 11,619 journals in Journal Citation Reports (JCR) as of May 3, 2015
- 10,532 journals in DOAJ May 15, 2015
- 1,146 journals in DOAJ with IF
- 10.8% of journals in DOAJ have IF
- 9.8% of journals in JCR are DOAJ journals
PILOT: 50% OF DOAJ JOURNALS WITH IF

- 572 journals (selected alphabetically)
- 169 matched May 2014 APC sample
  - May 2014 APC sample 1,432 / 2,567 APC journals = 55% of total
  - Estimated APC journals of 572: 229 (169 / .55)

- Estimated 40% of IF journals in DOAJ with APC
- Compare with 30% of DOAJ journals with APC
AVERAGE APC MAY 2014

• overall average: $964 USD (Morrison et al. 2015)

• average IF journal $1,948 USD
### APCs of IF Journals

<table>
<thead>
<tr>
<th></th>
<th>APC 2010 USD</th>
<th>APC 2013 USD</th>
<th>APC 2014 USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max</td>
<td>2,165</td>
<td>2,420</td>
<td>2,650</td>
</tr>
<tr>
<td>Min</td>
<td>500</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Min greater than zero</td>
<td>500</td>
<td>200</td>
<td>198</td>
</tr>
<tr>
<td>Median</td>
<td>1,825</td>
<td>2,060</td>
<td>2,215</td>
</tr>
<tr>
<td>Mode</td>
<td>1,825</td>
<td>2,060</td>
<td>2,215</td>
</tr>
<tr>
<td>Average</td>
<td>1,637</td>
<td>1,808</td>
<td>1,948</td>
</tr>
</tbody>
</table>

* 2010 data courtesy Solomon & Björk

---

sustainingknowledgecommons.org

A SSHRC Insight Development Project
Heather Morrison, & César Villamizar

Université d'Ottawa | University of Ottawa
École des sciences de l'information / School of Information Studies http://arts.uottawa.ca/sis/
DOAJ IF journals May 2015 by quartile
(pilot - half data)

Q4: 42%
Q3: 27%
Q2: 19%
Q1: 12%
DOAJ IF Journals - all and APC (pilot, half data)
DOAJ IF / APC journal by % APC increase
Dec. 2013 - May 2014 (pilot)
DOAJ IF APC Journals by 2013-14 price increase

- 6 - 10%: 72%
- > 20%: 8%
- None: 16%
- 12 - 14%: 4%
SUMMARY IMPACT FACTOR (IF)

- 10% of journals in JCR are DOAJ journals
- 10% of journals in DOAJ have IF
- Both APC and non-APC journals with IF
- IF journals charging APC charge 2X average
- IF APC journals: price increases substantial; 6 – 10%
  Dec. 2013 – May 2014 typical
QUESTIONS? CONTACT:

Heather Morrison

Heather.Morrison@uottawa.ca

César Villamizar

cvill022@uottawa.ca

sustainingknowledgecommons.org

sustainingknowledgecommons.org
A SSHRC Insight Development Project
Heather Morrison, & César Villamizar

Université d'Ottawa | University of Ottawa
École des sciences de l’information / School of
Information Studies http://arts.uottawa.ca/sis/
REFERENCES

