Flipping Norway

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The data used

Max Planck Digital Library analysis: Web of Science (WoS) data

• **Strengths:**
  – Covers all research producing sectors
  – Accurate indication of corresponding authors

• **Weaknesses:**
  – Does not cover all scholarly fields equally well
  – Must be bought
  – Reasonably accurate, but not without errors
  – Takes time to get complete data for preceding year
Our analysis: CRIStin (The national CRIS of Norway) data

• **Strengths:**
  – Cover all scholarly fields
  – High accuracy and completeness
  – Are there, and do not need to be bought
  – Data for preceding year in place before end of April next year

• **Weaknesses:**
  – Do not cover all research producing sectors
  – No indication of corresponding author
Comparison shows that MPDL’s WoS data leave out about 25 per cent of Norwegian publications
  – Probably mostly from Humanities and Social Sciences
  – Implies that the loss of data from non-represented sectors in CRIStin data is much smaller than the added data from under-represented scholarly fields in WoS data
Problem to solve: No information on corresponding author
  – Need to find a proxy for this
Corresponding author proxy

- Someone has to pay for any given article
- Only institutions who have authors can pay
- The more authors of an article an institution has, the higher the probability of having to pay for it
- The fraction of an article authored by an institution’s authors gives an approximation of the probability the institution will have to pay for that article
  - Not exact for the individual article, but a reasonable approximation for a larger number of articles
  - Can be used to calculate the costs and savings of a flipping
- The sum of all article fractions for an institution hence represents the number of articles the institution must expect to pay for
- This method can be used by any institution with an updated and correct CRIS
Contrasting cost for a cluster of Norwegian HEIs

(Representing 97 per cent of Norwegian HEI article output)
Based on a number of assumptions and on historical data.
Local subscription costs are rough estimates.
Long term APC assumed to be NOK 20,000 (≈ € 2000), short term NOK 30,000 (≈ € 3000)
Article volume (sum of article fractions) is estimated to 7529 whole articles

<table>
<thead>
<tr>
<th>All amounts in million NOK</th>
<th>Short term (high APC)</th>
<th>Long term (low APC)</th>
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<tbody>
<tr>
<td>APC costs</td>
<td>225.8</td>
<td>150.5</td>
</tr>
<tr>
<td>Savings on current expenditure</td>
<td></td>
<td></td>
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<tr>
<td>Consortia-based subscriptions</td>
<td>164.1</td>
<td></td>
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<tr>
<td>Local subscriptions</td>
<td>65.6</td>
<td></td>
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<tr>
<td>Publication funds</td>
<td>13.5</td>
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<tr>
<td>Net savings on transition</td>
<td>17.4</td>
<td>92.7</td>
</tr>
</tbody>
</table>

All amounts in million NOK
Short term | Long term
(high APC) | (low APC)

225.8 | 150.5
164.1 | 65.6
13.5 | 17.4
92.7 |
Additional savings

- Numbers are rough estimates.
- No calculations have been attempted regarding the economic effects of broader and quicker uptake of research in society.

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<thead>
<tr>
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<th>Short term</th>
<th>Long term</th>
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<tbody>
<tr>
<td>Hidden APCs</td>
<td>NOK 6 million</td>
<td>NOK 6 million</td>
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<tr>
<td>Green OA work</td>
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<td>NOK 3 million</td>
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<tr>
<td>Consortia work</td>
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<td>NOK 5 million</td>
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<td>KOPINOR fees</td>
<td></td>
<td>NOK 6 million</td>
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<tr>
<td>Sum</td>
<td>NOK 6 million</td>
<td>NOK 20 million</td>
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Conclusion

• Flipping from a subscription-based to an APC-based model will be profitable for the Norwegian HEI sector
  – Both in the short and in the long term
• Detailed analysis shows this is not necessarily profitable for every institution
  – Especially in the short term
• The big institutions representing the bulk of current costs (80 per cent) profit both in the long and in the short term
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