The Easy Button
Integrating OA Buttons into ILL Workflows

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Evolving perspectives: Open access & ILL

<table>
<thead>
<tr>
<th>Year</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Early articles (Corhouts 2011, Koyama et al. 2011) showed concerns that rise of OA would negatively impact ILL.</td>
</tr>
<tr>
<td>2014</td>
<td>Later articles were more positive (Hu and Jiang 2014, Schöpfel 2014), suggesting that OA could provide valuable source of scholarly content for ILL.</td>
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<tr>
<td>2016</td>
<td>Baich conducted two studies of ILL requests in 2012 and 2015, and a third with Mak in 2016, all showing a general upward trend in requests for OA material through ILL.</td>
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<tr>
<td>2017</td>
<td>JISC has been studying the feasibility of integrating the OA Button into interlibrary loan workflows, using three different use cases for potential services (work is ongoing).</td>
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</tbody>
</table>
(Anecdotal) Assumptions

- There are costs to traditional ILL borrowing activities for articles
- The integration of open access (OA) versions of articles will alleviate direct costs and *may* alleviate indirect costs
- The proportion of ILL article borrowing requests that may be filled by using OA sources is significant enough to provide a substantial benefit
Assumption:
The proportion of ILL article borrowing requests that may be filled by using OA Button or Unpaywall is significant enough to provide a substantial benefit.

Test:
- Compile multi-institutional borrowing data (filled requests)
- Determine % of requests that could be filled via OA Button/Unpaywall
- Estimate the cost savings* that would have been achieved
A Note on Costs

**Direct costs**
- Simple to calculate average direct cost of filled requests
- Less simple to determine if *every* request filled via OA version would be zero cost

**Indirect costs: two considerations**
- Integration of OA Button/Unpaywall prior to initiating ILL workflow (*estimated here*)
- Integration of OA Button/Unpaywall into ILL staff workflow (*not tested here*)
Finding What’s Open: The Tools

Sources

**Open Access Button**
Unpaywall, Share, Core, OpenAIRE, Dissem.in, Europe PMC, BASE

**Unpaywall**
Crossref, DOAJ, Gold OA & Hybrid Journals, Institutional Repositories, Disciplinary Repositories

Query By

**Open Access Button**
DOI, URL, PubMed ID, PubMed Central ID, Title

**Unpaywall**
DOI
## Finding What’s Open: The Tools

### Services

**Open Access Button**
*Chrome Browser Extension, CSV Upload, Open API*

**Unpaywall**
*Chrome & Firefox Extensions, OpenAPI, Database Download, Data Feed (fee based)*

### Integrations

**Open Access Button**
*ILLiad and Clio, Embeddable Code for LibGuides and ILL Webpages*

**Unpaywall**
*SFX, 360, and Primo Link Resolvers, Scopus, Dimensions, Web of Science*
Our Methodology

1. Raw Data Collected
Each institution pulled FY16 fulfilled borrowing & lending transactions

<table>
<thead>
<tr>
<th>Institution</th>
<th>Borrowing</th>
<th>Lending</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSU</td>
<td>7,655</td>
<td>2,216</td>
</tr>
<tr>
<td>Pacific</td>
<td>2,999</td>
<td>9,557</td>
</tr>
<tr>
<td>U of Portland</td>
<td>4,152</td>
<td>1,345</td>
</tr>
<tr>
<td>OHSU</td>
<td>2,282</td>
<td>*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17,078</strong></td>
<td><strong>13,118</strong></td>
</tr>
</tbody>
</table>

2. Sample Size Computed
Calculated to produce two-sided 95% confidence interval with a precision of 0.05

<table>
<thead>
<tr>
<th>Institution</th>
<th>Borrowing</th>
<th>Lending</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSU</td>
<td>278</td>
<td>255</td>
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<tr>
<td>Pacific</td>
<td>263</td>
<td>280</td>
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<tr>
<td>U of Portland</td>
<td>270</td>
<td>238</td>
</tr>
<tr>
<td>OHSU</td>
<td>256</td>
<td>*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1067</strong></td>
<td><strong>773</strong></td>
</tr>
</tbody>
</table>
Our Methodology

3. Samples Generated & DOIs Collected

Google Sheets RANDBETWEEN function used to assign random identifiers & create samples

DOIs manually collected for document in the samples

4. Queried OA Button & Unpaywall APIs

OA Button
If DOI not available, looked for title match

Unpaywall
Queries limited to DOIs

Results

An Open Access version was found for **23.2%** of the requests in our samples.

<table>
<thead>
<tr>
<th>Tool</th>
<th>OA Found</th>
<th>OA Not Found</th>
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<tbody>
<tr>
<td>OA Button</td>
<td>397</td>
<td>1,442</td>
</tr>
<tr>
<td>Unpaywall</td>
<td>233</td>
<td>1,137</td>
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</table>
Results

Overall, no significant difference between borrowing & lending transactions
Results

<table>
<thead>
<tr>
<th>OA Button Not Found</th>
<th>Unpaywall Not Found</th>
<th>OA Button Found</th>
<th>Unpaywall Found</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific</td>
<td>U of Portland</td>
<td>OHSU</td>
<td>PSU</td>
<td></td>
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<td></td>
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<tr>
<td>0.8</td>
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<td>0.7</td>
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Percentage of Total ILL Requests
Impact

The projected mean direct cost value of OA materials is $37,782.

Estimated average transaction cost = $18.40
Projection is limited to Pacific, PSU, and U of Portland data.
Assumption:
Proportion of ILL requests that may be filled by using OA Button or Unpaywall is significant enough to provide a substantial benefit

23.2% OA Version Found
16.5% - 24.6% Institutional Range
Testing Our Assumptions: Further Work & Questions

What’s Next:

What integration will have the most impact?

What variables matter?

What versions are at play?

What are our shared definitions of cost (and savings)?
Our Contributing Colleagues:
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NORTHWEST ILL & RESOURCE SHARING CONFERENCE

THANK YOU!

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Baich, T. (2015) "Open access: help or hindrance to resource sharing?", Interlending & Document Supply, Vol. 43 Issue: 2, pp.68-75.


Fahmy, S. “Jisc Open Access Button project- our findings” Jisc scholarly communications. 12 Oct. 2017 https://scholarlycommunications.jiscinvolve.org/wp/2017/10/12/jisc-open-access-button-project-our-findings/


