Patron Driven Acquisition: A Model for Providing Complete Access to Electronic Content While Limiting Costs For Libraries

Background

Patron Driven Acquisition (PDA) is a hot topic in today’s library world. Driven by stagnant or dwindling library budgets, libraries – at first in the US, and now internationally – have been exploring new ways to offer their patrons – i.e. library users – access to the broadest range of high-quality content for research and teaching. Taking advantage of the increasing availability of academic content in digital form, a number of retailers over the last few years have been developing increasingly popular models for Patron Driven Acquisition. These models permit libraries to purchase e-books only when library users have requested them with a given frequency. Usually, the budget for this type of acquisition is set in advance so as to give the institutions some control over their costs. To date, no single PDA service model offered by an individual publisher has been adopted on a broad scale.

While the potential economic advantages of PDA is beyond question, systemic problems have arisen in utilizing the model. Critics of Patron Driven Acquisition argue that the model only favors the transitory information interests of individual users and fails to provide adequate support for the deliberate growth of a library’s digital holdings. Indeed, libraries still consider building their collections to be a part of their core mission in the digital world, as is the case for printed books.

Patron Driven Acquisition at De Gruyter: Preliminary Considerations

In recent years, De Gruyter has made enormous progress in digitalizing its catalogue. By mid-2012, the publishing house had over 9,000 e-books in its portfolio, with an annual frontlist production of over 800 titles, more than 600 journals as well as approx. 35 specialized databases. In addition, more than 2,000 titles have been digitalized upon request from libraries as part of the e-dition Program. Altogether, there are approx. 450,000 journal and book documents and more than 15 million database entries available at De Gruyter Online. These publications have been sold to date in packages or individually; furthermore, database access can be rented. Until now, the publishing house has provided its entire range of purchase options both directly and through its distribution partners.

Based upon feedback from its Library Advisory Board, De Gruyter decided to offer its customers a purchase model for digital content that was independent of a single format. Yet rather than design the new sales model around a conference table, De Gruyter wanted to base the model on empirical data and develop it in active dialogue with customers. In mid-2011, De Gruyter contracted with three institutions to conduct a PDA trial. Participants included the academic libraries at the Jülich Research Centre and the University of Hagen, as well as the University of Mannheim. Scientific aspects of the 12-month trial were supervised by Prof. Michael Seadle, Director of the Berlin School for Library and Information Science at the Humboldt University of Berlin.

1 A good survey on this subject is provided by the compendium Swords, David A. (Ed.). 2011. Patron-Driven Acquisitions. Berlin, Boston: De Gruyter.
Project Design

Each of the partners was selected because of its unique service profile. While the library at the Jülich Research Centre (contact person: Dr. Bernhard Mittermair) is the information provider for approx. 2,000 academics in the natural sciences, the University of Hagen (contact person: Dr. Eric Steinhauer) serves approx. 80,000 students, most of whom are enrolled in non-residence based online degree programs. By contrast, the University of Mannheim (contact person: Dr. Annette Klein) is a classical campus-based university that serves approx. 11,000 library users. Naturally, a test conducted on such diverse subjects did not intend to yield valid statistical comparisons, but rather, was designed to generate insights about user behavior. This was also the aim of the survey conducted by Professor Seadle.

All of the participating libraries were given access to all of De Gruyter’s electronic content of potential relevance to their academic staff and students. We decided not to offer access to thematically unrelated content – for example, the Jülich Research Center, which is involved in the natural sciences, did not get access to humanities publications. This was done to ensure the service was tailored to users, and minimize distortion in the data.

Of course, it was clear prior to the study that a large proportion of the information resources accessed by users would be indeterminable, insofar as print books and journals were accessed; this usage was thus not considered. Furthermore, it was agreed that at the end of the trial period, each library could freely choose to apply their rental charges to publication purchase.

The project partners hoped that the project would help them answer three central questions:

1. Is Patron Driven Acquisition an economically sustainable model for the publishing house and the library?
2. What parameters, such as usage or institutional size, are most relevant for initiating PDA in the overall market?
3. How should a publisher’s direct PDA offering be ideally structured, in distinction to retailers and aggregators?

Results of the Trial

As expected, the offering of access to all of De Gruyter’s content led to a significant increase in usage at two of the three institutions that had previously purchased only a portion of the publisher’s products. The figures for e-book usage, for example, make this clear (Figure 1). At the University of Mannheim, usage figures fell because of unusually strong usage figures in the year prior. It was e-books that showed the most extensive use – completely in keeping with the trend in the industry – representing 56% of total utilization, followed by journals and databases, each with 23%.2

2 Utilization figures for the Berkeley Electronic Press and Versita journals acquired by De Gruyter in September 2011 and January 2012, respectively, were not considered in the evaluation.
Usage preferences

In addition to the quantitative assessment of the PDA model at the three institutions and the professional support given by librarians, users at each of the institutions were asked about their preferences regarding the use of electronic content in their work processes by means of a qualitative survey. Prof. Michael Seadle, Director of the Berlin School of Library and Information Science at the Humboldt University of Berlin, placed special emphasis on surveying the use of digital content.3

Essentially, the results showed that participants in the qualitative portion of the study regard digital media positively or very positively. Not a single individual surveyed completely rejected the use of digital library resources (Figure 2).

What is your opinion of digital resources as opposed to printed resources?

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3 The survey encompassed 26 users.
With regard to research work as well, there was a clear preference shown for digital content: 74% of those surveyed indicated that they used academic works somewhat to very frequently in digital form without printing hard copies (Figure 3).

The positive response of the individuals surveyed strengthened the resolve of the participating librarians to expand electronic offerings for their users.

**Economic sustainability**

There was intensive discussion about the question of creating a model that would be sustainable for both parties. Despite their underlying euphoria about the introduction of a new model oriented to micropayment, both parties were left with the concern that one or the other might gain an unfair advantage, e.g. as the result of above-average or below-average patron demand. It was clear that a balanced approach was needed in light of the commercial interests of the publishing house and the needs of library operating under the constraints of a tight public-financed budget.

The trial participants came to the following conclusion: the business model should be based on usage, but to limit the risks for the publishing house and the libraries, it would also make sense to define a payment corridor between minimum and maximum statistical usage (Figure 4).
Suitable Parameters for Patron Driven Acquisition

Yet questions remained concerning how to define this paid corridor, both for new customers and for the publishing house’s existing clientele. The librarians and the publisher agreed from the outset they would need to find parameters that could be set clearly and unambiguously so as to assure maximum transparency. The librarians’ advice was to avoid using separate historical budget and expense data for each institution. The aim to develop a PDA model that did not rely on a holdings-based determination of costs.

Therefore, De Gruyter calculated the average utilization of its content per full time equivalent (FTE) per year over its entire customer base across all media types. In this regard, De Gruyter intentionally sought to use hard usage data, and not just figures concerning abstract views. The FTE includes both researchers and students at the respective institution. When considered together with the number of FTEs, this method makes it possible to calculate average utilization levels across institutions in a transparent way. The empirical finding of this analysis was that the average usage per user was 1. This means that each user at each institution downloads an average of one e-book chapter or journal article or conducts one database search.

The upper and lower thresholds of the usage corridor (Figure 4) were then applied to average utilization per user. All of the participants considered it advisable to incorporate a +/- 20% margin of fluctuation into this calculation. As a result, we concluded that each library must pay a maximum usage of 1.2 per user, and a minimum usage of 0.8 per user.

Following the calculation of average usage per user, the usage costs per content item were then determined. These costs were calculated by the publisher on the basis of economic requirements and were not derived from the PDA trial. The calculated price per use – i.e. for the download of a book chapter, journal article, or database query – was €2.50.

Based on a price per use of €2.50 and forecasted usage per user of 1, we arrived at the following calculation:

\[
\text{Price per download} \times \text{Usage per user} \times \text{Number of users} = \text{PDA fee}
\]

<table>
<thead>
<tr>
<th>€2,50</th>
<th>1</th>
<th>10,000</th>
<th>€25,000</th>
</tr>
</thead>
</table>

4 The hard data in this case were successful full-text article requests for e-books and e-journals as well as database searches.
In this particular scenario, if the actual usage per user is higher, then a maximum of €5,000 in additional costs will be billed at the end of the access period (€2.50 x 1.2 x 10,000 = €30,000). By contrast, if the actual usage per user is lower than expected, a maximum of €5,000 will be credited to the library (€2.50 x 0.8 x 10,000 = €20,000).

**Structure of the PDA Offer**

Based upon our evaluation of the trial and discussions with the participating librarians, it was clear that a PDA offering by a publisher should include three kinds of packages. In addition to an option for obtaining a complete package with all content, the participants expressed their wish for product-specific and subject-specific purchase options (Figure 5). This was seen as a way to reduce the likelihood of paying for content that was excessively broad and non-relevant to a particular institution, thus allowing unnecessary costs to be avoided. It was also viewed as important for averting conflict between this newly introduced model and existing contracts for specific markets and customers, such as the alliance licenses for journals in Germany.

<table>
<thead>
<tr>
<th>Package</th>
<th>Content</th>
<th>Usage cost per content item</th>
<th>PDA fee (ex. FTE = 20,000)</th>
<th>Value of content</th>
<th>Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete package</td>
<td>All Content</td>
<td>€2.50</td>
<td>€50,000</td>
<td>€1,585,000</td>
<td>97 %</td>
</tr>
<tr>
<td>Product packages</td>
<td>All Databases</td>
<td>€1.25</td>
<td>€25,000</td>
<td>€345,000</td>
<td>93 %</td>
</tr>
<tr>
<td></td>
<td>All e-journals</td>
<td>€1.25</td>
<td>€25,000</td>
<td>€240,000</td>
<td>90 %</td>
</tr>
<tr>
<td></td>
<td>All e-books</td>
<td>€2.00</td>
<td>€40,000</td>
<td>€1,000,000</td>
<td>96 %</td>
</tr>
<tr>
<td>Subject packages</td>
<td>All STM Content</td>
<td>€2.00</td>
<td>€40,000</td>
<td>€792,500</td>
<td>95 %</td>
</tr>
<tr>
<td></td>
<td>All Social Sciences &amp; Humanities Content</td>
<td>€2.00</td>
<td>€40,000</td>
<td>€792,500</td>
<td>95 %</td>
</tr>
</tbody>
</table>

Under the Patron Driven Acquisition model, the publisher makes all of its content available to a library. In the case of existing library customers, the library will already have some of the content made accessible via PDA in its electronic collections. Of course, usage under the PDA model only applies to content that the library has not previously acquired.

While the purchasing process at aggregators takes place automatically according to the number of downloads per title, the trial participants rejected this kind of unsupervised process, wishing instead to preserve possibilities for intervention in view of their objective to strengthen their collections. Over the course of the discussion, we developed an approach that would convert PDA fees into purchase rights to content beyond the end of the access period. For this purpose, the publisher proposed that existing utilization statistics in the counter standard be enlisted as the criterion for decision-making.

Using these statistics, a library participating in the PDA is completely free to independently select the content for which it wishes to purchase ownership rights and, in this way, the library can go beyond actual content utilization in pursuing the aim of building its collection. Thus, our model does not include an automatic purchase structure.
Summary of De Gruyter’s Patron Driven Acquisition Model

Based upon the trial with three libraries and the accompanying survey, De Gruyter has developed a business model for Patron Driven Acquisition that takes into account eight important criteria:

1. Unlimited access is provided to all patrons for all content during the utilization period; no supervision of PDA.
2. The model does not rely on data concerning each library’s previous expenditures.
3. A maximum expenditure limit reduces cost risks for the library.
4. A minimum expenditure limit reduces revenue risks for the publishing house.
5. Libraries can choose between format types and subject areas (STM/Social Sciences and Humanities).
6. Libraries may convert their PDA fees into permanent ownership rights.
7. Librarians remain involved in acquisition.
8. Libraries are not charged for previously acquired content with usage under the PDA model.