Introduction

Up to now we have mainly used usage statistics to make decisions about whether to cancel or renew subscriptions. This year we started to look at demand for content we do not currently hold, in order to help make decisions about purchasing as well. One strand of this work involved looking at all our journal ‘turnaway’ reports as a whole to see them in context. We discovered that there had been a lot of turnaways (that is, when a user has tried to access a full text journal article and was denied access), and not just because we did not have a current subscription. In many cases there were other reasons why clients were denied access to articles.

Background and methodology

The University of Portsmouth Library has been making good use of usage statistics for e-resources for many years. It is important that we make evidence-based decisions, so we regularly look at turnaways for e-books and cost per use figures for journals and databases. However, until this year we had only made sporadic use of the COUNTER Journal Report 2 (JR2), which shows the number of turnaways. Turnaways may occur because we have a limited user licence, but more commonly it is because we do not subscribe and do not have any access to that content.

In the past we have looked at turnaways sporadically, usually when there has been a query about one particular journal or a particular publisher. But this meant looking at the figures in isolation; I wanted to put them into context. I collected the 2015 JR2 reports for all publishers and platforms for which we already have a subscription, and collated them into one large spreadsheet. A sample is shown in Fig. 1:

![Table showing collated JR2 reports](image)

Fig. 1  A sample of the collated JR2 reports from all publishers

The list was surprisingly long. There were over 9,000 journal titles with a turnaway in 2015, a handful of them registering over 1,000 turnaways each. There were over 200,000 turnaways in total, not counting the publishers who do not offer a JR2 or where we do not have a subscription. By comparison, we registered around 1.6 million successful article downloads in the 2014–15 academic year, so it appears that roughly one in every seven attempts to access an article resulted in a University of Portsmouth client being denied access. This is clearly frustrating and potentially confusing for clients, so action needs to be taken to reduce this number – but what action? I expected to come up with a list of suggested purchases: some titles would obviously have a lot of
Putting e-journal turnaway figures into context

Using the COUNTER Journal Report 2 to make evidence-based decisions

turnaways and should clearly be put on the wish list. However, when I looked more closely at each journal, it became clear that there were several reasons for turnaways, and this affected what action should be taken.

Context

It became obvious that we needed to know more about each journal before making any decisions. As well as knowing that access had been denied to many articles, we also needed to find out:

- Are we supposed to have any access at all to articles from that journal?
- If so, which years do we have access to?
- Do we have access via other publishers or via full text databases such as EBSCO databases or JSTOR packages?

With the extra information, the spreadsheet looked like this (Fig. 2):

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<table>
<thead>
<tr>
<th>Title</th>
<th>Platform</th>
<th>Reporting Period</th>
<th>Current UoP full text access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Abnormal Psychology</td>
<td>APA PsycNET</td>
<td>1056</td>
<td>PsycARTICLES 1906-present</td>
</tr>
<tr>
<td>Proceedings of the Geologists’ Association</td>
<td>ScienceDirect</td>
<td>980</td>
<td>ScienceDirect 1995-present</td>
</tr>
<tr>
<td>Marine Biology</td>
<td>SpringerLink</td>
<td>955</td>
<td>Springer 1967-present</td>
</tr>
<tr>
<td>The Journal of Finance</td>
<td>Wiley Online Library</td>
<td>878</td>
<td>Wiley 1997-present</td>
</tr>
<tr>
<td>Journal of Marketing</td>
<td>Ithaka</td>
<td>860</td>
<td>EBSCO 1936-present</td>
</tr>
</tbody>
</table>

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Fig. 2 A sample of journals with turnaways, with an added column showing our current full text access

I started by checking our current e-journals list in the EBSCO Discovery Service, but I also had to check title lists to see if each journal was included in a deal in 2015 (as that was when the turnaways were generated). I did this for the top 500 titles, which got down to titles with eighty turnaways, and some themes emerged.

Available on another platform

In many cases the journal was available on another platform (that is, not the platform with the high number of turnaways). For example, *Journal of abnormal psychology* had 1056 turnaways on the APA Psycnet platform. However, we have access to this title via PsycARTICLES, a full text database from EBSCO, from 1906 onwards. This indicates that some users are not searching in our discovery service or using the databases recommended by their faculty librarian; they may be using Google Scholar or other non-library search engines. So in this case the problem is not that we do not have access; we need to promote PsycARTICLES more widely and reinforce the message that clients should be using library search facilities for better results.

Similar results were found where clients had obviously searched in a favourite database such as JSTOR, but had not done a wider search in Discovery. Now in a deal <subhdg B>
Many titles had already been made available for 2016, so no action was needed. The most common issue here was that we bought the Springer NESLi2 deal for 2016 for the first time; this was clearly a worthwhile decision, given the number of titles with turnaways in 2015.

Other titles had been added into a deal or their publisher had been taken over; for example Ergonomics, which we now take as part of our Taylor & Francis deal.

**Errors**
The investigation turned up some errors. For example, according to Discovery we had access to British politics from 2006 to the present; actually we had no access at all, so this was a good opportunity to correct the metadata in Discovery. In other cases the years were wrong, or we had selected the wrong platform.

**Demand for older articles**
For many titles it appeared that we had access, but there were still turnaways. The most common theme here was titles in our Elsevier ScienceDirect package, which generally offers access from 1995 to the present. Assuming that coverage is correct, the figures suggest that clients were trying to access articles that were published before 1995. While we might question why there is high demand for articles that are over twenty years old, there is clear evidence that there is demand, so we should consider purchasing an archive if funds are available.

**No access to current content**
After eliminating titles in all the above categories, I was finally left with a list of potential purchases – what I had originally intended to find. These were titles where we did not have any access at all, or we did not have access to recent content (for example, we might only have access via an EBSCO database with a one-year embargo).

For these titles I obtained an institutional price for the online version, and using this I could calculate a likely cost per use (subscription cost divided by number of turnaways) (Fig.3).

<table>
<thead>
<tr>
<th>Title</th>
<th>Platform</th>
<th>Reporting Period Total</th>
<th>Current Limited Full text access</th>
<th>Subscription price + VAT</th>
<th>Likely cost per download via publisher platform</th>
<th>Recommended actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daedalus</td>
<td>JSTOR 1955-2010</td>
<td>128</td>
<td>No access</td>
<td>£1.15</td>
<td>£0.00</td>
<td>Consider purchase</td>
</tr>
<tr>
<td>Fertility and Sterility</td>
<td>ScienceDirect</td>
<td>115</td>
<td>No access</td>
<td>£1.09</td>
<td>£0.23</td>
<td>Consider purchase</td>
</tr>
<tr>
<td>International Journal of ingentaconnect Performance Analysis in Sport</td>
<td>Project MUSE</td>
<td>116</td>
<td>No access</td>
<td>£2.70</td>
<td>£2.33</td>
<td>Consider purchase</td>
</tr>
<tr>
<td>Human Rights Quarterly</td>
<td>HeinOnline 1991-present (full text delay 2 years) JSTOR 1991-2010</td>
<td>52</td>
<td>No access</td>
<td>£210</td>
<td>£2.38</td>
<td>Consider purchase</td>
</tr>
<tr>
<td>Annual Review of Political Science</td>
<td>EBSCO 1996-2005</td>
<td>51</td>
<td>No access</td>
<td>£210</td>
<td>£2.38</td>
<td>Consider purchase</td>
</tr>
</tbody>
</table>

**Fig. 3 Calculation of likely cost per use based on turnaway figures and subscription cost**

We would only want to subscribe if it is likely to be good value for money. For our current individual e-journal subscriptions we use £10 per article download as a benchmark. I used the same benchmark here: if the likely cost per download would be less than £10, I recommended considering a new subscription. If it was over £10, it would be cheaper to get articles via interlibrary loan, so a subscription is not worth considering.
Decisions and next steps

This started out as a small project: simply putting several JR2 reports together and working out which journals we should be buying. However, a lot more investigation was needed to find out the context and the reasons why turnaways had been registered. I believe the effort was worthwhile, as we are now using the information to make decisions. From the 500 titles that I looked at, there were 35 that should be considered for purchase, plus 28 that had significant demand, but would probably be too expensive to buy. There were 164 titles where there is demand for archive content. As a result of the report, we have already bought two journal archives, which include 33 titles from the list of 164. Faculty librarians are also consulting with academic staff and will make decisions on whether to buy new subscriptions in conjunction with the main renewals work this autumn. We have also corrected several errors, which turned up while we were systematically working through the list. Finally, we have a better idea of how to teach our clients about searching, and we know which databases are most in need of promotion.

It would be useful to repeat the exercise next year to enable comparison; this will hopefully show a reduction in the number of turnaways overall, and fewer titles with hundreds of turnaways. Although we do have budgetary constraints, it is helpful to get as much information as possible to make evidence-based decisions about purchases as well as renewals and cancellations.