This tool has been developed to help libraries apply the logic of Ithaka S+R’s report “What to Withdraw: Print Collections Management in the Wake of Digitization” to the journals made available in electronic form through JSTOR and determine which JSTOR-digitized journals may be responsibly deaccessioned in print form by any library. Download full report and tool at www.sr.ithaka.org/research-publications/what-withdraw-print-collections-management-wake-digitization

Who should use this tool?
This tool can be used by any library to supplement collections management decisions regarding print versions of journals digitized by JSTOR. For many libraries, the preservation status of journals is one important criterion in a broader decision-making process about print collections management. This tool can help libraries to explore the system-wide preservation status of materials in their collections and prioritize materials that may be better candidates for deaccessioning, moves to off-site storage, or other collections management actions.

How should I use this tool?
The tool is designed to help libraries evaluate the potential impact on system-wide preservation if they were to choose to withdraw the print version of a given journal title. It allows libraries to differentiate between materials that meet adequate system-wide preservation thresholds and those that do not. At the same time, this tool should not serve as a deterministic guide for deaccessioning but as one element of the collections management decision-making process. For example, numerous factors may lead a library to retain, either on-site or off-site, some or all of the print titles covered by the decision-support tool. Some materials may have unique continuing value to local users, faculty in different departments may have differing desires to retain print access, and some libraries have regional or consortial responsibilities. These factors may cause some libraries to feel either a practical or preservation need to retain materials locally in addition to system-wide preservation holdings. Based on the outputs of this tool, a library may identify a set of journal titles that can be responsibly deaccessioned with minimal impact on system-wide preservation considerations, but evaluations of local needs are also required as part of a comprehensive decision-making process.

How can I apply the logic of this report to journals outside of JSTOR?
Many other print journals can likely be deaccessioned responsibly beyond those contained in the present version of this decision-support tool, but the data and accompanying analysis needed to confirm the preservation status of these journals are not yet widely available. Working with partners in the coming years, Ithaka S+R hopes to expand libraries’ collections management options by analyzing the withdrawal potential of a far larger number of journals from a variety of sources beyond JSTOR. As additional data and analysis become available, we envision releasing subsequent versions of this tool.

What can I do with the materials that I determine can be safely deaccessioned?
In deaccessioning these materials, libraries should consider how they might be better used elsewhere. For example, the deaccessioning library should engage with system-level efforts to collect journal backfiles. JSTOR provides a list of “missing issues” that it is seeking to digitize to fill in gaps in its electronic collections, and the UC repository of print materials available electronically though JSTOR also solicits donations of items (www.srlf.ucla.edu/Jstor/Default.aspx) that they do not have yet. And other programs like Better World Books (www.betterworldbooks.com) may be able to use deaccessioned materials for other purposes.

Will this tool be updated when new titles are added?
We are determining community interest in this tool. Please email Roger.Schonfeld@ithaka.org or Ross.Housewright@ithaka.org to let us know how you are using the tool.

What if I have questions about the tool? Who can I contact?
Please contact info@sr.ithaka.org with any questions. You can also check www.sr.ithaka.org for scheduled webinars.

Step 1: Set Completeness
JSTOR relies on a number of sources to support its goal of providing online access to a complete back run of every participating journal. However, in some instances there are still issues missing from the Harvard and UC print repositories as copies of each issue have not yet been page-validated to match JSTOR’s quality thresholds. For this reason, the first variable defines a threshold for “completeness.” An archive’s holdings of a title are measured against this threshold to determine if a sufficiently complete set of a title to meet withdrawal thresholds has been verified. For example, if this threshold is set at 90%, an archive that has 95% of the issues of that title will be considered to have a sufficiently complete set (recognizing that gaps will be filled in over time), while an archive that has 85% of the issues will be considered to not have a complete set. A threshold of around 90% will identify only titles that are held nearly completely. Efforts to fill in the gaps at these print repositories are ongoing, and a carefully managed deaccessioning process can assist in doing so.

**Step 2: Set Number of Copies**

The “What to Withdraw” report suggests that items that meet other preservation criteria that are at minimum held in two page-verified dark archives are adequately preserved to meet community preservation needs for access and re-digitization. As such, we suggest setting the target number of copies to “2.” A title will pass a threshold of two if both print archives have over the target threshold for “completeness” in Step 1. For example, if the completeness threshold is 90%, both the Harvard and UC archives must have over 90% of the total number of issues to meet the target number of copies; but, if one archive has 95% and another has 85% of a title, this title will fail this test, as only one “complete” set will be identified. The holdings of two print repositories that are incorporated into this tool are page-verified.

**Step 3: Set Image-to-Page Ratio (Image Density)**

**Figure 1**

![Image Density Chart]

- Number of JSTOR-Digitized Titles
- Image Density

<table>
<thead>
<tr>
<th>Image Density</th>
<th>Number of JSTOR-Digitized Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% ≤ x &lt; 5%</td>
<td>1000</td>
</tr>
<tr>
<td>5% ≤ x &lt; 10%</td>
<td>800</td>
</tr>
<tr>
<td>10% ≤ x &lt; 25%</td>
<td>600</td>
</tr>
<tr>
<td>25% ≤ x &lt; 50%</td>
<td>400</td>
</tr>
<tr>
<td>50% ≤ x &lt; 100%</td>
<td>200</td>
</tr>
<tr>
<td>x ≥ 100%</td>
<td>0</td>
</tr>
</tbody>
</table>
The “What to Withdraw” report emphasizes that images digitized even with high quality standards may not serve as an adequate substitute for preservation purposes, and so concludes that it is not yet appropriate to widely deaccession journals in which images play an important role. For this reason, this tool calculates the image-to-page ratio for each journal title as a rough proxy for the centrality of images to the journal.¹ A relatively low threshold for this variable, such as 5% (meaning that the journal averages less than one image per twenty pages) will separate journals that use few images from those that use them more heavily. As a result, many art history, architecture, and certain scientific journals in which images are especially important will be excluded.

Figure 1 below provides a breakdown of image densities across the JSTOR-digitized titles that may be helpful in setting this variable appropriately.

**Step 4: Set JSTOR Participation**

Some titles may be sufficiently preserved in print form to enable widespread deaccessioning, but if a library does not have digital access to these titles, it may remain important to maintain local print holdings to serve user needs. For this reason, as a convenience, the tool allows libraries to specify the JSTOR collections in which they participate, using this information to identify titles that meet withdrawal criteria and to which the library provides access in digitized form. To see a list of collections you license, visit [www.jstor.org/action/collectionsAvailable](http://www.jstor.org/action/collectionsAvailable) from a computer at your institution (the generated list is IP based).² Please note, some collections have no titles that currently meet withdrawal potential (in particular, primary source-based collections or recently released journal collections).

**Step 5: Click “Title” tab to see list**

Please note that this list contains information about each individual title digitized by JSTOR, and so journals that have merged over time, changed names, etc, will be listed separately.

**Step 6 (optional)**

¹ In this proof of concept tool, “images” are defined as images, charts, or tables that use features such as color, shade, and tone in a manner that cannot be replicated in a bitonal full-page image.

To view only “Actionable” titles (which could be considered for withdrawal), set the filter variable at the top of the “Actionable” column to “yes”. This will show only the actionable titles. You can also use filters in other columns (such as ISSN or Title) to sort and organize this list.

Although the list of “actionable” titles may provide a valuable source of information in local print collections management decision-making, many other considerations should apply. In addition to considering local needs, priorities, and commitments, libraries should check a title's JSTOR page to see if there are any issues missing from JSTOR that may be more appropriate to retain locally or share with JSTOR to fill in gaps, and should consider whether the title is best considered a monographic series that may be subject to different considerations.