Digital Lending During a Pandemic:
A Dual Approach to Secure Document Delivery on a Deadline

Brown University Library
Digital Technologies

December 3, 2020

Anthony Helm, Director of Library Digital Technologies
Joseph Rhoads, Repository Manager
The world changed, but the academic show must go on...
How to get materials to faculty, researchers, and students?
HathiTrust ETAS

- Quickly implemented at Brown
- Time-bound*
- Hit-or-miss selection based on holdings

*It was our understanding that ETAS access was permitted until we resumed our physical circulation operations, which was in July.
Market Options?

- Adobe Content Server
  - Cost per use
  - Hosted vs. self-hosting
  - Known problematic UX
- Readium
- EditionGuard
- ReShare
• Merits
  • Already in production
  • Secure
  • Easy-to-use, for staff and patrons
  • Time-based controls and remote kill-switch

• Demerits
  • Files not reassignable*
  • Security prevents accessibility
  • Scalability challenges
  • No self-service option
  • 150MB file size limit

*Brown’s license does not include Virtru for Google Drive, so each file transfer is a new instance, facilitated by staff. We could reuse the file, but not simply reassign the existing Virtru version of the file.
The Princeton Model*

- Physical items are checked out to a CDL users in ILS and put on hold shelf through semester.
- Items are scanned and ingested into Samvera repository
- Catalog listing includes login to allow for limited checkout
- Items presented in a IIIF viewer, with 3 hour timer, and 10 minute countdown to expiration

*Our sincere thanks to Jon Stroop, Esmé Cowles, and Kate Lynch at Princeton who took time to share the work they’ve done with our team at Brown..
The Princeton Model

- If copies are checked out, *Reserve* option presented instead of login, with an email notification when item is available.
- Once notified, a user has 1 hour to access the file.
- Downloading is disabled in viewer.
- Multiple copies are determined by a query to the ILS to see how many copies are checked out to CDL user.
The Brown Variation

- Focus on course reserves
- PDF > IIIF for a better reading experience
- Accessibility support required
- Not a part of the repository or catalog
- 2 ½ weeks until undergraduate courses begin
The Brown Variation – Tech Overview

- Backend - Python/Django
  - Upload/register Items (PDFs)
  - Manage Sessions and Timers
  - Notify Holds
- Middle (Item Processing) - Go
  - Small binary to selectively corrupt the PDFs
- Frontend - Standard HTML and Javascript
  - PDF.js with code to undo selected corruption
  - Countdown timer that will reload the page
Statistics

- **Virtru**: 231 document requests fulfilled since July 2020
- **CDL**: 650 items available, 2.7K sessions started, 400 holds requested, since September 16

<table>
<thead>
<tr>
<th>Reservation Summary</th>
<th>All dates</th>
<th>September 2020</th>
<th>October 2020</th>
<th>November 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td>2961</td>
<td>894</td>
<td>437</td>
<td>228</td>
</tr>
<tr>
<td>Reservations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned Early</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notified</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abandoned</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Started</td>
<td></td>
<td></td>
<td></td>
<td>2733</td>
</tr>
<tr>
<td>Expired</td>
<td></td>
<td></td>
<td></td>
<td>1839</td>
</tr>
<tr>
<td>Answered</td>
<td></td>
<td></td>
<td></td>
<td>209</td>
</tr>
</tbody>
</table>

Reservations Over Time

- Bar chart showing reservations over time.
Demos

- Virtru
- CDL App
Brown University uses Virtru to encrypt sensitive communications. To decrypt and read this message, click the "unlock message" button below. If you would like to confirm the veracity of this message, please contact the Brown IT Service Center at (401) 863-4357.

Unlock Message

This is a Brown University secure email powered by Virtru. To learn more about Virtru, or to secure your own messages, visit www.virtru.com.

Brown University, Providence, RI 02912
powered by Virtru
Attached please find the document you requested. Please be aware that this document will be available for you to access for two weeks. In accordance with copyright law, printing and downloading of this document are disabled.

Sincerely,
John Doe
Brown University Library
The Project Gutenberg Ebook of Baron von Münchhausen’s merkværdige reiser og eventyr, by Rudolf Erich Raspe

This ebook is for the use of anyone anywhere in the United States and most other parts of the world at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this ebook or online at www.gutenberg.org. If you are not located in the United States, you’ll have to check the laws of the country where you are located before using this ebook.

Titles: Baron von Münchhausen’s merkværdige reiser og eventyr

Author: Rudolf Erich Raspe
Illustrator: Gustave Doré
Release Date: September 14, 2020 [Ebook #63200]
Language: Norwegian
Character set encoding: ISO-8859-1

*** START OF THIS PROJECT GUTENBERG EBOOK BARON VON MÜNCHHAUSEN ***

Produced by Jens Sadowski, Tor Martin Kristiansen, and the Online Distributed Proofreading Team at https://www.pgdp.net
### Digital Lending Items

<table>
<thead>
<tr>
<th>Bib #</th>
<th>Item #</th>
<th>Title</th>
<th>Copies</th>
<th>Status</th>
<th>Link</th>
<th>Edit</th>
</tr>
</thead>
<tbody>
<tr>
<td>71014020</td>
<td>175178410</td>
<td>Fontana mix: material for tape music of that title</td>
<td>1</td>
<td>Ready for viewing</td>
<td>Link</td>
<td>Edit</td>
</tr>
<tr>
<td>b10000001</td>
<td>100000001</td>
<td>Baron von Münchhausens merkvaerdige reiser og eventyr</td>
<td>25</td>
<td>Ready for viewing</td>
<td>Link</td>
<td>Edit</td>
</tr>
<tr>
<td>b10014226</td>
<td>100014793</td>
<td>Locke, Berkeley, Hume: central themes</td>
<td>1</td>
<td>Ready for viewing</td>
<td>Link</td>
<td>Edit</td>
</tr>
</tbody>
</table>
Edit Item b10000001_i100000001

Bib id* b10000001  Item id* i100000001

Item file*
Currently: b10000001_i100000001_mQosOJS.pdf
Change:
Choose File  no file selected

Number of copies to lend

25

Increase this number if you have other copies of this text that you are reserving for CDL, so you don't need to make duplicate scans or upload the file more than once.

Title  Baron von Münchhausens  Author  Rudolf Erich Raspe

SUBMIT
<table>
<thead>
<tr>
<th>Sequence</th>
<th>Date Due</th>
<th>Citation</th>
<th>E-Reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Morrison, Toni. <em>Love.</em>&lt;br&gt;<a href="https://cdl.library.brown.edu/cdl/item/b34560257_i128225944">https://cdl.library.brown.edu/cdl/item/b34560257_i128225944</a>.</td>
<td>LINK 3 HR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Morrison, Toni. <em>The source of self-regard: selected essays, speeches, and meditations.</em>&lt;br&gt;<a href="https://cdl.library.brown.edu/cdl/item/b8555200_i189874089">https://cdl.library.brown.edu/cdl/item/b8555200_i189874089</a>.</td>
<td>LINK 3 HR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Morrison, Toni. <em>God help the child.</em>&lt;br&gt;<a href="https://cdl.library.brown.edu/cdl/item/b7586259_i180133196">https://cdl.library.brown.edu/cdl/item/b7586259_i180133196</a>.</td>
<td>LINK 3 HR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Morrison, Toni. <em>Sula / Toni Morrison.</em>&lt;br&gt;<a href="https://cdl.library.brown.edu/cdl/item/b1229866_i149137588">https://cdl.library.brown.edu/cdl/item/b1229866_i149137588</a>.</td>
<td>LINK 3 HR</td>
</tr>
</tbody>
</table>
The bluest eye
Toni Morrison

Availability: 1 of 1

VIEW ITEM FOR 3 HOURS
(size: 7.63MB)

NOTICE CONCERNING COPYRIGHT RESTRICTIONS

This item may be protected by third-party copyright and/or related intellectual property rights. It is provided by Brown University Library on a non-commercial basis for your personal Fair Use academic and educational research purposes only. For other uses, you must obtain permission from the rights holder. In addition, you may not make copies of the item, display it online (e.g., on the internet), or distribute it to anyone else, including friends, colleagues, or classmates. By continuing to use this digital resource you are acknowledging that you agree to comply with these terms of use.

The copyright law of the United States (title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specific conditions is that the photocopy or reproduction is not to be “used for any purpose other than private study, scholarship, or research.” If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of Fair Use, that user may be liable for copyright infringement.

This institution reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.
The Bluest Eye
Return successful

Thank you for returning The bluest eye. It's now available for other patrons to view.

- Take me to the Canvas home page
- Take me to the Library home page
- Take me to the QCRA home page
Here is the sweet hand: poems
Harris, Francine

Availability: 0 of 1 copies

PLACE A HOLD

NOTICE CONCERNING COPYRIGHT RESTRICTIONS

This item may be protected by third-party copyright and/or related intellectual property rights. It is provided by Brown University Library on a non-commercial basis for your personal Fair Use academic and educational research purposes only. For other uses, you must obtain permission from the rights holder. In addition, you may not make copies of the item, display it online (e.g., on the internet), or distribute it to anyone else, including friends, colleagues, or classmates. By continuing to use this digital resource you are acknowledging that you agree to comply with these terms of use.

The copyright law of the United States (title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specific conditions is that the photocopy or reproduction is not to be “used for any purpose other than private study, scholarship, or research.” If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of Fair Use, that user may be liable for copyright infringement.

This institution reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.
Here is the sweet hand : poems
Harris, Francine

A hold has been placed on Here is the sweet hand : poems for you. You will receive an email when the item is ready. It will be held for you for 30 minutes after it becomes available. If you can’t get to the item within that timeframe, you’re welcome to request a new session for this item any time.
Dear Library Patron,

An item you requested, *Here is the sweet hand: poems*, is ready for you to view. It will be held for you for 30 minutes, until Monday, Nov. 30th at 5:21 p.m. (EST) (Brown Campus Time).

If you can't get to the item within that timeframe, you're welcome to request the item again any time.

[View Here is the sweet hand: poems now](#)
Future Enhancements

- Variable loan lengths
- Enhanced analytics
- Notification by Phone
Questions?

anthony_helm@brown.edu
joseph_rhoads@brown.edu
Thank you.