

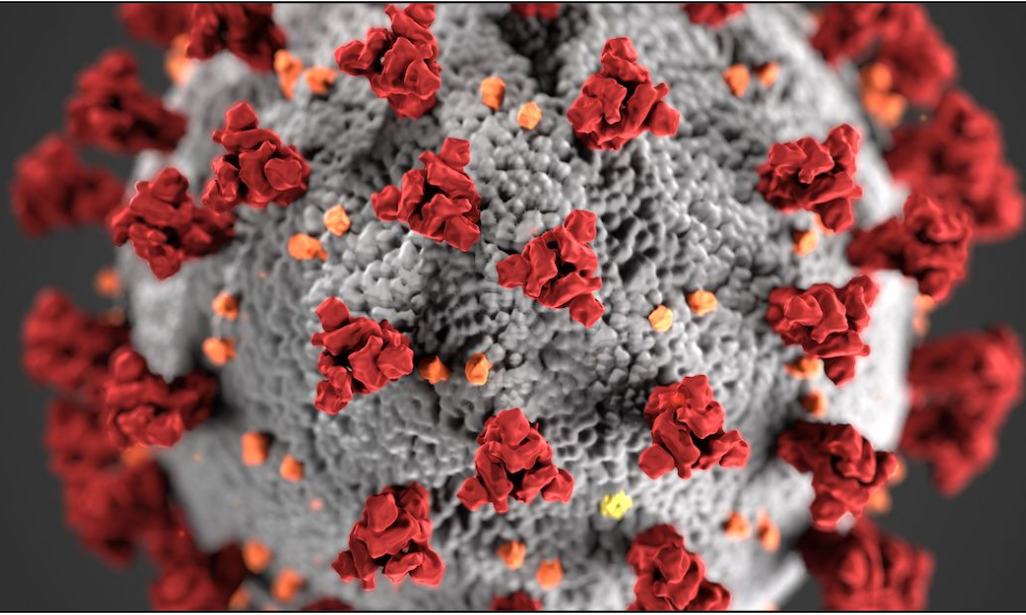
# Digital Lending During a Pandemic: A Dual Approach to Secure Document Delivery on a Deadline

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...

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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?

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- Adobe Content Server
  - Cost per use
  - Hosted vs. self-hosting
  - Known problematic UX
- Radium
- EditionGuard
- ReShare



**Radium**



**EditionGuard**

**RESHARE**



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# Lightbulb Moment - Virtru

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- 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\*

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- 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..



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# The Princeton Model

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- 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

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- Focus on course reserves
- PDF > IIF for a better reading experience
- Accessibility support required
- Not a part of the repository or catalog
- 2 1/2 weeks until undergraduate courses begin

# The Brown Variation – Tech Overview

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- 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

Home > Cd\_App > Reservation Summary Statistics

Reservation Summary

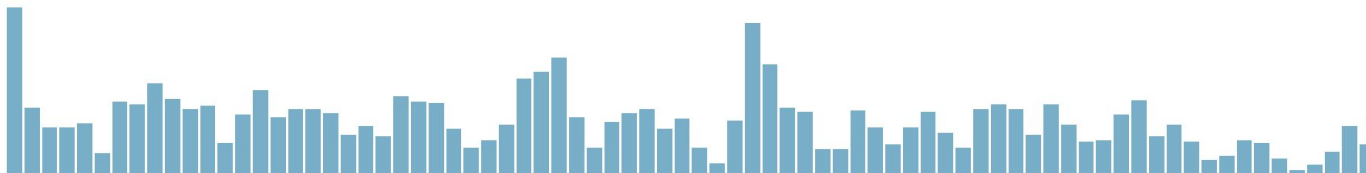
ADD RESERVATION SUMMARY STATISTICS +

< All dates **September 2020** October 2020 November 2020

## Totals

Reservations	2961	Started	2733
Returned Early	894	Expired	1839
Notified	437	Answered	209
Abandoned	228		

## Reservations Over Time



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# Demos

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- Virtru
- CDL App

# Virtru - Security Options

Your requested document

Expires in 14 days ⓘ

XXXXXXXXXX@XXXXXX.COM

Your requested document

Attached please find the document available for you to access for downloading of this document

Sincerely,  
John Doe  
Brown University Library

MESSAGE OPTIONS


- Disable Forwarding
- Expiration Date   
2 weeks

Wednesday, Dec 16th, 2020 @ 4:47 PM

ATTACHMENT OPTIONS ⓘ

- Watermarking
- Persistent Protection

1 SECURED ATTACHMENT ⓘ

 b10000001\_j100... .tdf.html  
21.6 MB

↶ ↷ Sans Serif ▼ T T B I U A ▼ ☰ ☷ ☸ ☹ ▼

Secure Send ▼ A 📎 🔗 😊 🖼️ ✎ ⋮ 🗑️


# Virtru - Message Received

Your requested document

INBOX People

Helm, Anthony  
> To: Anthonyhelm

Wednesday, Dec 2, 4:48 PM



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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](#)

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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](http://www.virtru.com)

Brown University, Providence, RI 02912

powered by  virtru

# Virtru - Message Unlocked



Secure Reader powered by Virtru

## Your requested document



**anthony\_helm@brown.edu** to me ([+1 more](#)) ▾

Today at 4:48 PM



Encrypted

Disable Forwarding

Expires in 14 days

Watermarking

Persistent Protection

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



# Virtru - PDF Viewer

The screenshot displays the Virtru PDF viewer interface. At the top, the file name "b10000001\_i100000001.pdf" is shown in the address bar, and a "Download" button is visible in the top right corner. Below the address bar is a toolbar with icons for document view, settings, hand, mouse, zoom out, and zoom in, along with a zoom level indicator set to "112%". A search icon is located in the top right of the viewer area.

The main content area shows a document page with the following text:

The Project Gutenberg EBook of Baron von Münchhausens merkværdige reiser og eventyr, by Rudolf Erich Raspe

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Title: Baron von Münchhausens 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 MÜNCHHAUSENS \*\*\*

Produced by Jens Sadowski, Tor Martin Kristiansen, and the Online Distributed Proofreading Team at <https://www.pgdp.net>





UPLOAD 1 ITEM

BATCH UPLOAD

Download as:

CSV

EXCEL

## Digital Lending Items

Show  entries

Search:

Showing 1 to 10 of 645 entries

Previous **1** 2 3 4 5 ... 65 Next

Bib #	Item #	Title	Copies	Status	Link	Edit
<a href="#">71014020</a>	175178410	Fontana mix : material for tape music of that title	1	Ready for viewing	<a href="#">Link</a>	<a href="#">Edit</a>
<a href="#">b10000001</a>	i10000001	Baron von Münchhausens merkværdige reiser og eventyr	25	Ready for viewing	<a href="#">Link</a>	<a href="#">Edit</a>
<a href="#">b10014226</a>	i100014793	Locke, Berkeley, Hume: central themes	1	Ready for viewing	<a href="#">Link</a>	<a href="#">Edit</a>



## Edit Item b10000001\_i100000001

**Bib id\***

**Item id\***

### Item file\*

Currently: [b10000001\\_i100000001\\_mQosOJS.pdf](#)

Change:

no file selected

### Number of copies to lend

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**

**Author**



## ENGL 1761F S01: Toni Morrison

Fall, 2020, Aliyyah Abdur-Rahman

Issue with PDFs in Chrome: If you encounter an issue with downloading PDFs in Chrome, please see a workaround [here](#).

## Online Readings

View

Sequence

Date Due

Citation

E-Reserve

Toni Morrison. *Playing in the dark : whiteness and the literary imagination*.  
[https://cdl.library.brown.edu/cdl/item/b94568790\\_b94568790](https://cdl.library.brown.edu/cdl/item/b94568790_b94568790).

LINK 3 HR

Morrison, Toni. *Love*. [https://cdl.library.brown.edu/cdl/item/b34560257\\_i128225944](https://cdl.library.brown.edu/cdl/item/b34560257_i128225944).

LINK 3 HR

Morrison, Toni. *Beloved*. (2006). <https://login.revproxy.brown.edu/login?URL=http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=752057>.

LINK

Morrison, Toni. *The source of self-regard : selected essays, speeches, and meditations*.  
[https://cdl.library.brown.edu/cdl/item/b8555200\\_i189874089](https://cdl.library.brown.edu/cdl/item/b8555200_i189874089).

LINK 3 HR

Morrison, Toni. *God help the child*. [https://cdl.library.brown.edu/cdl/item/b7586259\\_i180133196](https://cdl.library.brown.edu/cdl/item/b7586259_i180133196).

LINK 3 HR

Morrison, Toni.. *Sula / Toni Morrison*. [https://cdl.library.brown.edu/cdl/item/b1229866\\_i149137588](https://cdl.library.brown.edu/cdl/item/b1229866_i149137588).

LINK 3 HR

Morrison, Toni. *The bluest eye : a novel*. [https://cdl.library.brown.edu/cdl/item/b1172987\\_i129040010](https://cdl.library.brown.edu/cdl/item/b1172987_i129040010).

LINK 3 HR



## The bluest eye

Toni Morrison

**Availability:** 1 of 1

**VIEW ITEM FOR 3 HOURS** (size: 7.63MB)

This digital lending service is new. If you encounter any unexpected behavior, we'd appreciate your [feedback](#).

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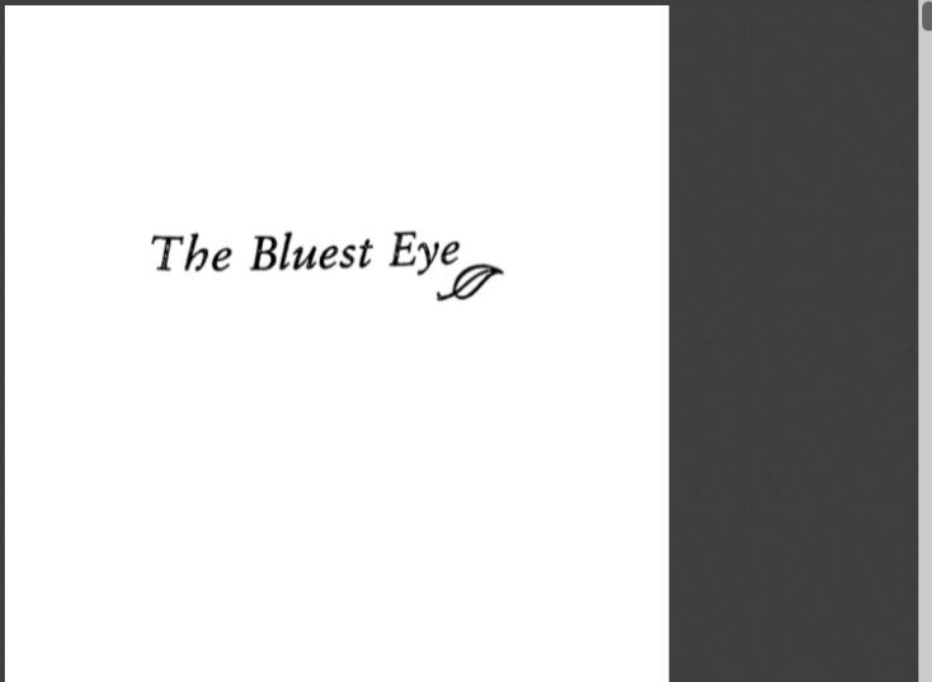
# Student View - CDL Reader


Your session will expire in 02h 59m

**RETURN THIS ITEM**

2 of 218

Page Fit



*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 OCRA home page](#)



## Here is the sweet hand : poems

Harris, Francine

**Availability:** 0 of 1 copies

PLACE A HOLD

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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

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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.



## Student View - Hold Email

**rock@brown.edu**

to me ▾

4:51 PM (5 minutes ago)



Reply



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

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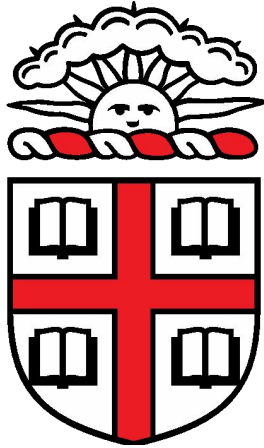
- Variable loan lengths
- Enhanced analytics
- Notification by Phone

# Questions?

[anthony\\_helm@brown.edu](mailto:anthony_helm@brown.edu)  
[joseph\\_rhoads@brown.edu](mailto:joseph_rhoads@brown.edu)

Thank you.





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