# Data-intensive tools for modeling and visualizing mass reading

Mrkq#Vkdqdkdq#MfUhdglqj#Fklfdjr#Uhdglqj<sup>©</sup>#Sumhfw GhSdxd\*Kqlyhuvlw

#### PERSONNEL AND SUPPORT

PRINCIPAL
INVESTIGATORS
John Shanahan
(English)

Robin Burke (Computing)

Ana Lucic (Library) CHICAGO PUBLIC LIBRARY

Jennifer Lizak



Jessica Bishop-Royse Nandhini Gulasingam

#### **STUDENTS:**

Danno Aasland, Hyunyou Choi, Yingting Guan, Monika Moore, Nasim Sonboli, Mihaela Stoica, He Yang, Tim Zhang

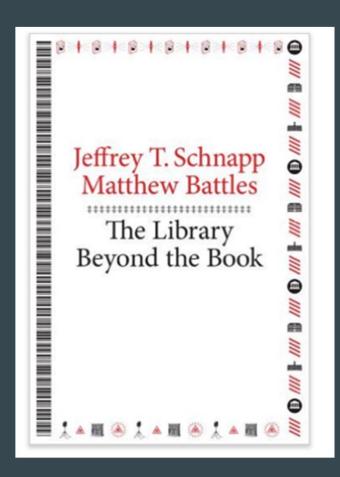












#### Library data

"Every time a book is taken off the shelf, a file is downloaded, or a computer work station is booted up, a story is told, and cataloged, and filed away in a database. In this way, each act of reading in the library broadcasts a handful of seeds, from which new growths of data will either spring—or disappear into a forest of statistical noise" (Schnapp and Battles 2014, 126).



Since September 2001.
One of the earliest "One Book" programs -27 events and counting

Circulation data for "OBOC" books, since 2011

#### **DATA SOURCES**

Bokeh

CPL ILS ———— Circulation

US Census — Demographics

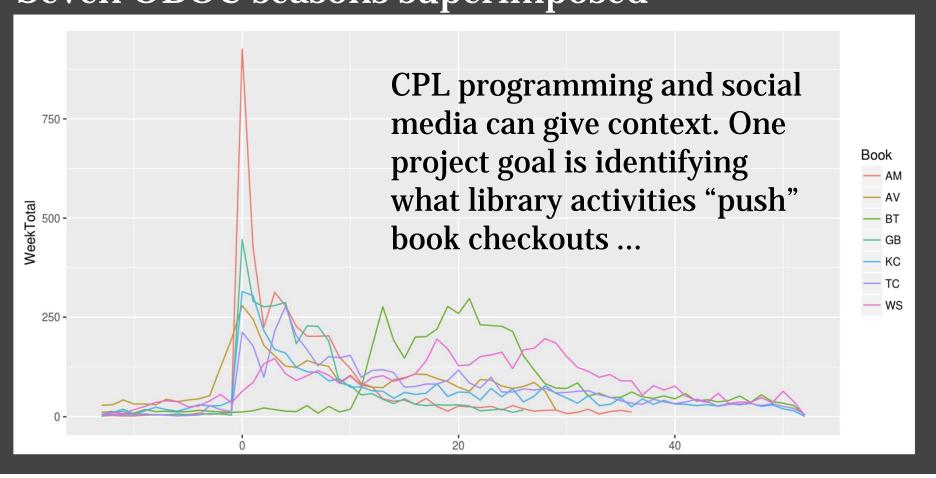
HathiTrust — Text

CPL Archives --- Events

Social Media — Tweets, GR, etc. \_\_\_

Dashboard

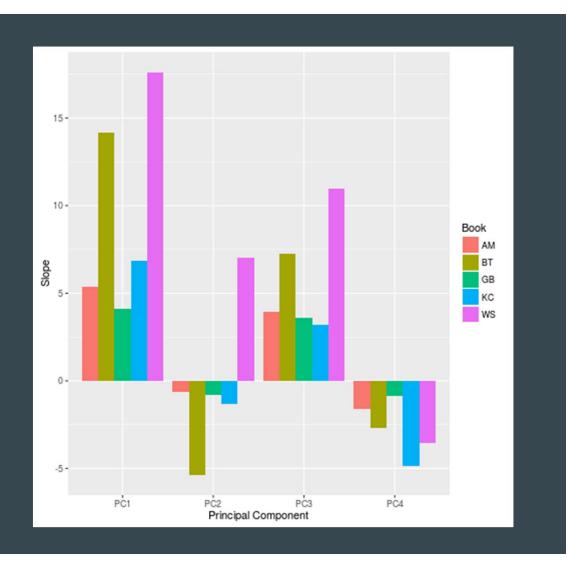
#### Seven OBOC seasons superimposed



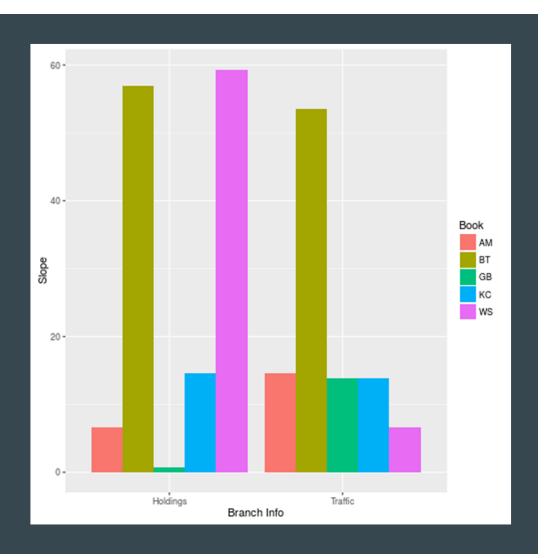
#### What branches / books?



#### Who reads?

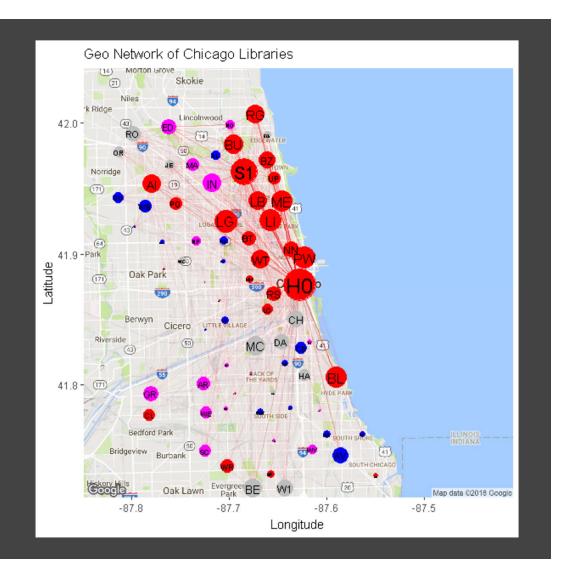


### What drives checkouts?



## How do books move in the system?

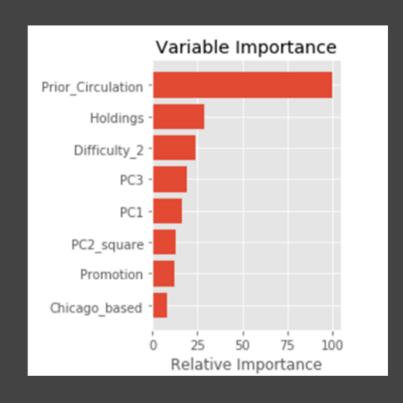
Augie March (fall 2011)



#### PREDICTIVE MODEL

With 8 features

Able to predict branch circulation within 0.1%



#### OUTREACH

Open-source software / dashboard

Presentations and papers

Workshops for librarians