

Data Engineering and Analysis of Seattle's Public Library Checkouts

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Background Seattle









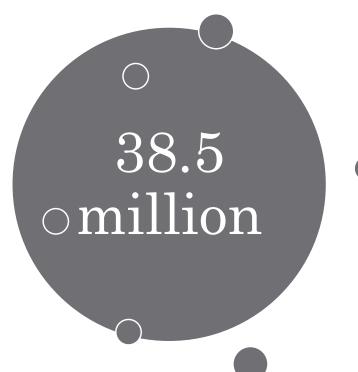




About the Dataset

- Publicly Available through the city of Seattle
- All Library Item checkouts
 - Books, movies, music, audiobooks, eBooks, etc.
- Circa 2005
- Includes fields like:
 - Title
 - Creator
 - Publisher
 - Publication Year
 - Subjects





Data Pipeline

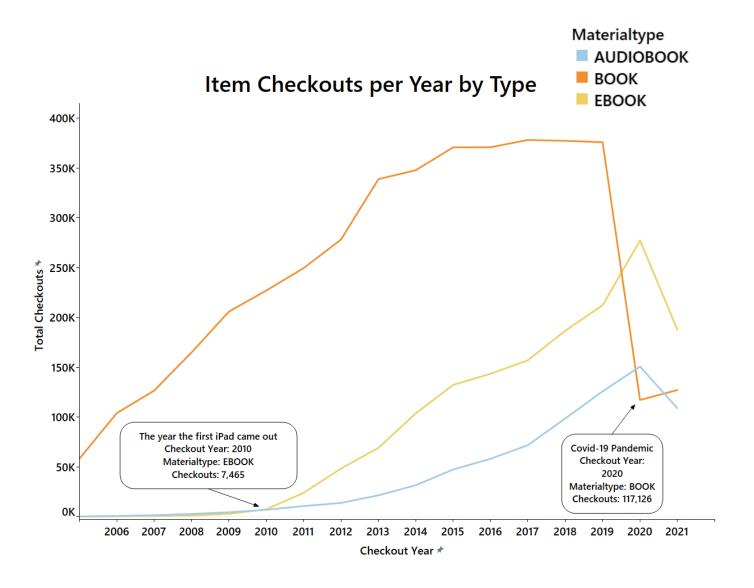


Data
Handling

Data
Spark
Sampling
SQL
queries

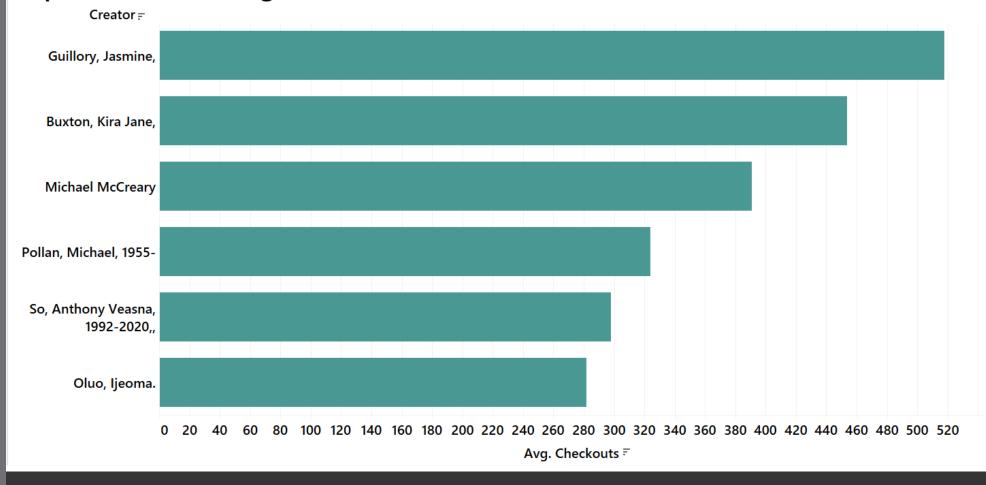
Data Storage

• SQL db
• Spark
JDBC
• Small
CSVs Viz-Analysis • CSV download • Tableau



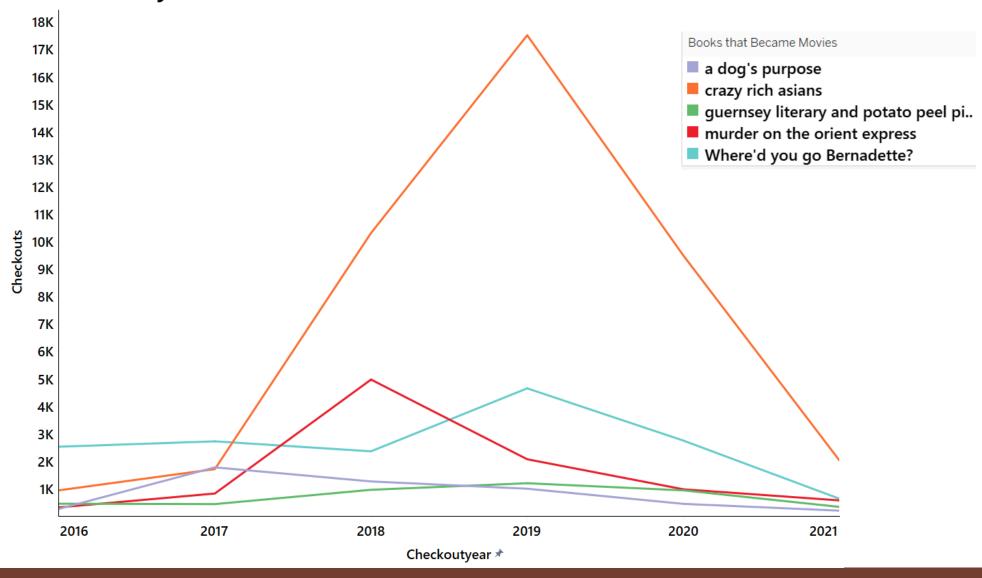
The Digital Age and the Pandemic

Top 5 Creator Average Checkouts



NYT Best Sellers/Indie Subjects: Race, Neurodivergence, Environment

Yearly Checkout Rates of Books that became Movies



Conclusions/ Future Work

- Checkouts reflect:
 - Digital Age
 - Pandemic
 - Seattle's Culture
 - Pop Culture Trends
- Add interactivity to dashboard
- Stratified sampling of entire corpus