A3: SPL Library Checkouts

Introduction

I selected the checkout data of A Song of Ice and Fire books and all its related products such as A Song of Ice and Fire Audiobook and A Song of Ice and Fire e-books from 2005 to 2023, a dataset with a total of 2042 observations related to A Song of Ice and Fire.

A Song of Ice and Fire is an epic fantasy novel series created by American author George R. R. Martin. Set in the fictional continent of Seven Kingdoms, the series describes the struggle, betrayal, political intrigue and war between different families for the throne, and also contains fantasy elements such as demons, dragons and the undead. The main characters of the novel include the Stark family, the Lannisters, the Tyrells, the Iron Islands and Daenerys the dragon lady. The book was adapted into a TV series of the same name, "Game of Thrones".

I chose the A Song of Ice and Fire dataset because I am a fan of Game of Thrones and I have watched every season of Game of Thrones, but I don't know much about its originals. So I found it very interesting to learn about the A Song of Ice and Fire dataset.

Summary Information

From 2005 to the present, there are 49716 on loan at the Seattle Public Library related to A Song of Ice and Fire. Of all those 49716 checked out, 0.431% is Audio book and 0.569% is E book. however, of all checkouts in 2018 (the most recent full year), 0.517% of checkouts were Audio book, and only 0.483% were E book. the 2018 data may show a trend preference for borrowing Audio book or E book from the library in recent years.

The Dataset

- Who collected/published the data?
  >Seattle Public Library

- What are the parameters of the data (dates, number of checkouts, kinds of books, etc.)? >>Usage class, dates, number of checkouts by month, material type, subject type, title and checkout type. Creators, publishers, publication year and ISBN number if applicable.
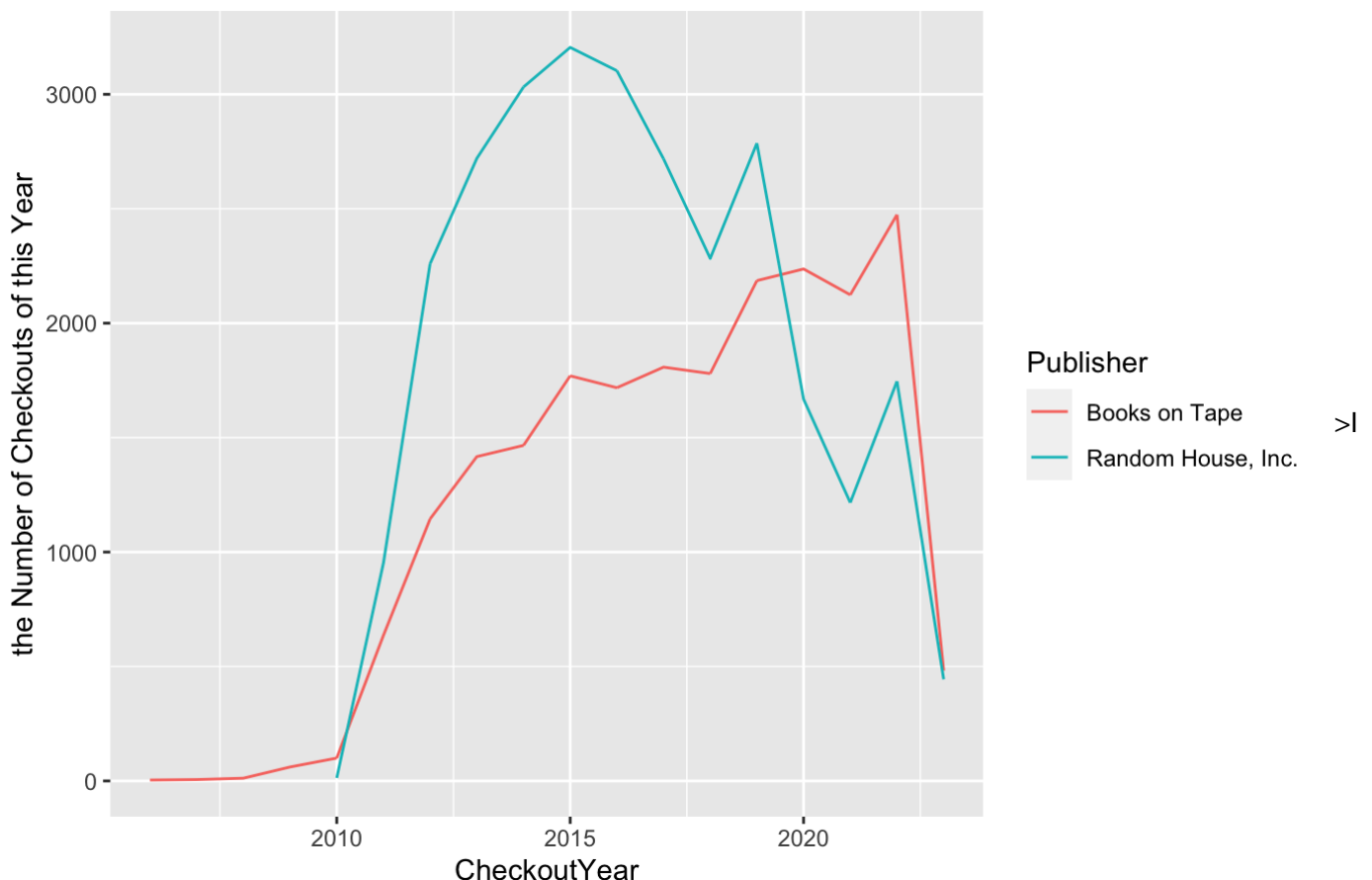
- How was the data collected or generated?
  >I filtered data on "https://data.seattle.gov/Community/Checkouts-by-Title/tmmm-ytt6/explore (https://data.seattle.gov/Community/Checkouts-by-Title/tmmm-ytt6/explore)" by "a song of ice and fire" and the data is automicaly generated.

- Why was the data collected?
  >Study trends in data about checkouts and trends in people's preferences.

- What, if any, ethical questions do you need to consider when working with this data?
  >I don't think there are ethical questions because the data are publicly anonymous.

- What are possible limitations or problems with this data? (at least 200 words) >There are many books about A Song of Ice and Fire in the dataset that can help me analyze people's preference for this book now. But I think these data may have some limitations in the analysis of the images, the first is because our data is stopped until 2023 I suspect that the data in it is not complete enough may make my images not so accurate. The second is that I found a relationship between the variables I analyzed, such as the image formed by the publisher and the form he issued. Maybe one publisher will publish an e-book and another will publish an audio book.

First Trends Over Time Chart

Here's an example of how to run an R script inside an RMarkdown file:

```
## `summarise()` has grouped output by 'CheckoutYear'. You can override using the
## `.groups` argument.
## `summarise()` has grouped output by 'CheckoutYear'. You can override using the
## `.groups` argument.
```
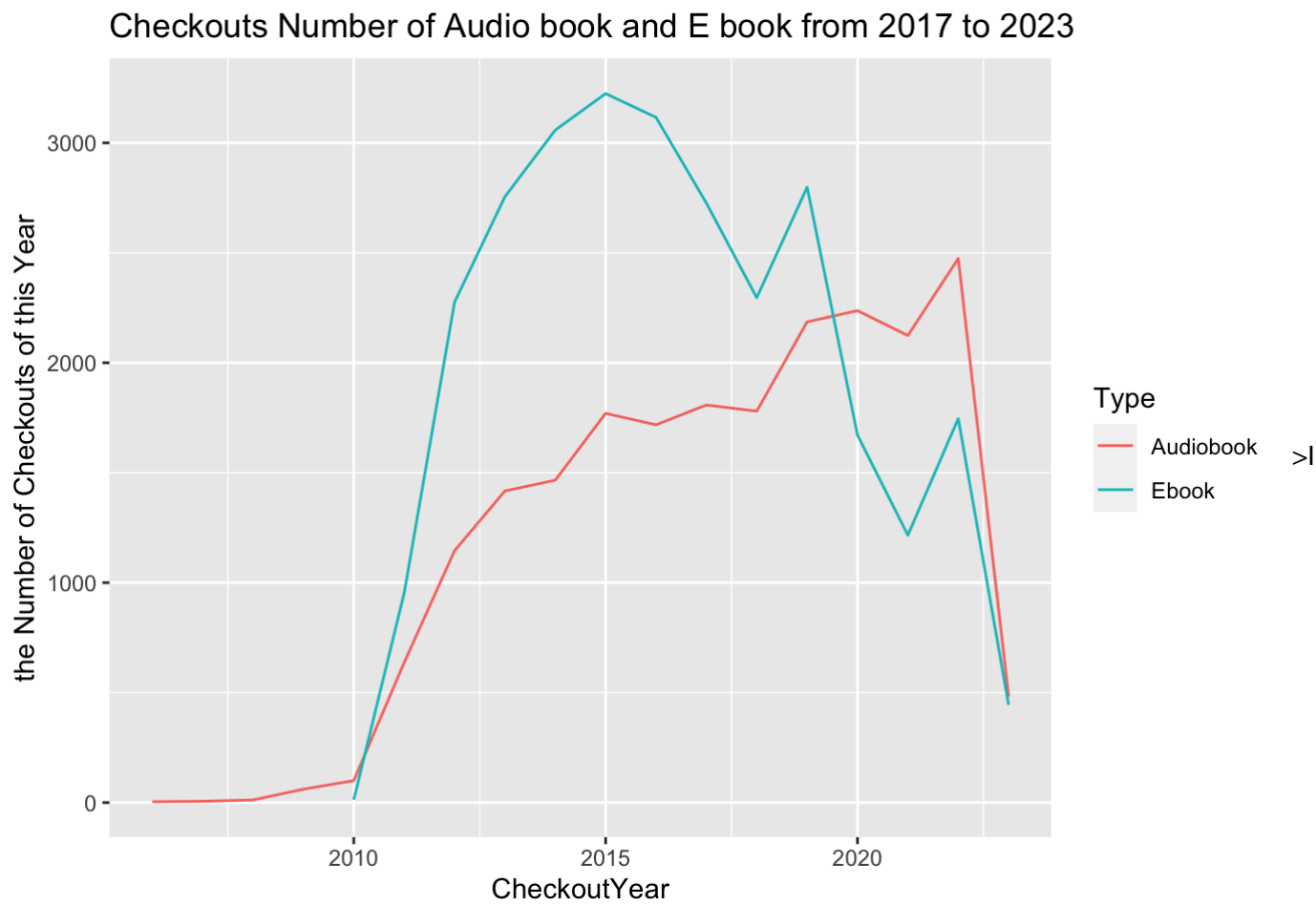

Checkouts Number of BooksonTape and RandomHouse from 2017 to 2023

chose this graph because I noticed that in 2022, Randomhouse has a much higher number of checkouts than BooksonTape, so I wanted to examine the trend of people's preferences for different publishers over time. I

noticed that Randomhouse's checkouts are trending downward, while BooksonTape's checkouts are trending upward rapidly.

Second Trends Over Time Chart

Here's an example of how to run an R script inside an RMarkdown file:

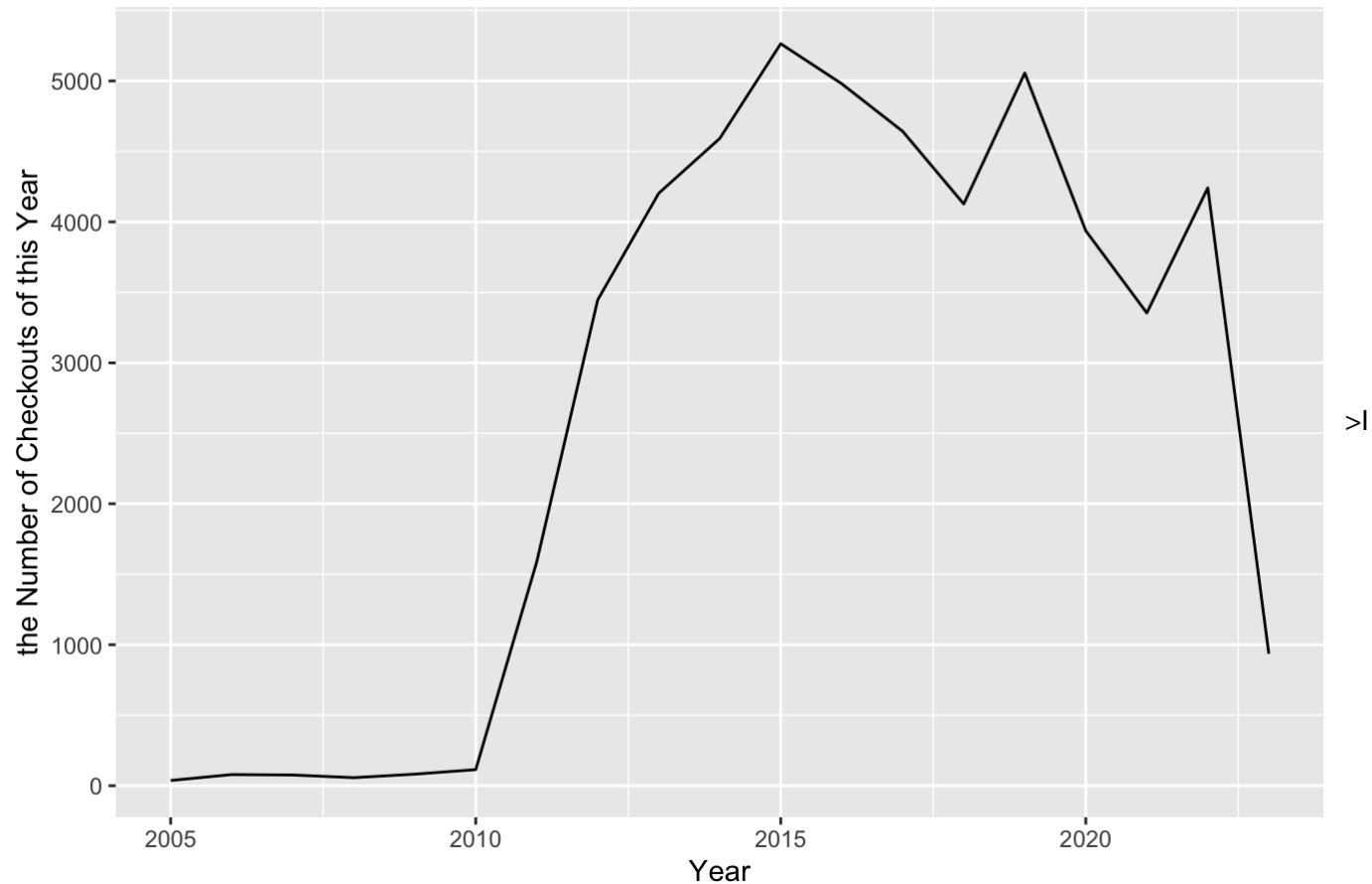Checkouts Number of Audio book and E book from 2017 to 2023

chose this chart because I noticed a declining trend in borrowing Ebooks, so I wanted to delve into this phenomenon. There are many kinds of products related to A Song of Ice and Fire. However, as a fan of PowerPlay, I think the E-book is quite convenient. However, the results show that the number of people who borrow Audio book is now on the rise, and the number of people who borrow E book is greater than that of the previous years.

Your Choice

Here's an example of how to run an R script inside an RMarkdown file:

Total Checkouts Number of SPL by Year

chose this chart because I wanted to examine trends in people's preferences for library use. For myself, I've hardly been to the library in the last year, so I thought there should be a downward trend. The results surprised me. There is indeed a substantial downward trend from 2019 to 2021. However, since 2021, SPL lending shows a slow decreasing trend despite covid-19 in 2020 and 2021, and a very high growth rate in 2021 and 2022.