

Analysis on Checkouts over 13 Years

Intro

I wanted to compare the amount of checkouts between books, dvds, and vhs tapes over 13 years. This can reveal the shift in people's preferences over the years between the three. It can be assumed that VHS fell out of favor long ago, but it can be hard to tell how quickly it left. Analyzing this data may also reveal some surprising trends and correlations between the item types.

Query

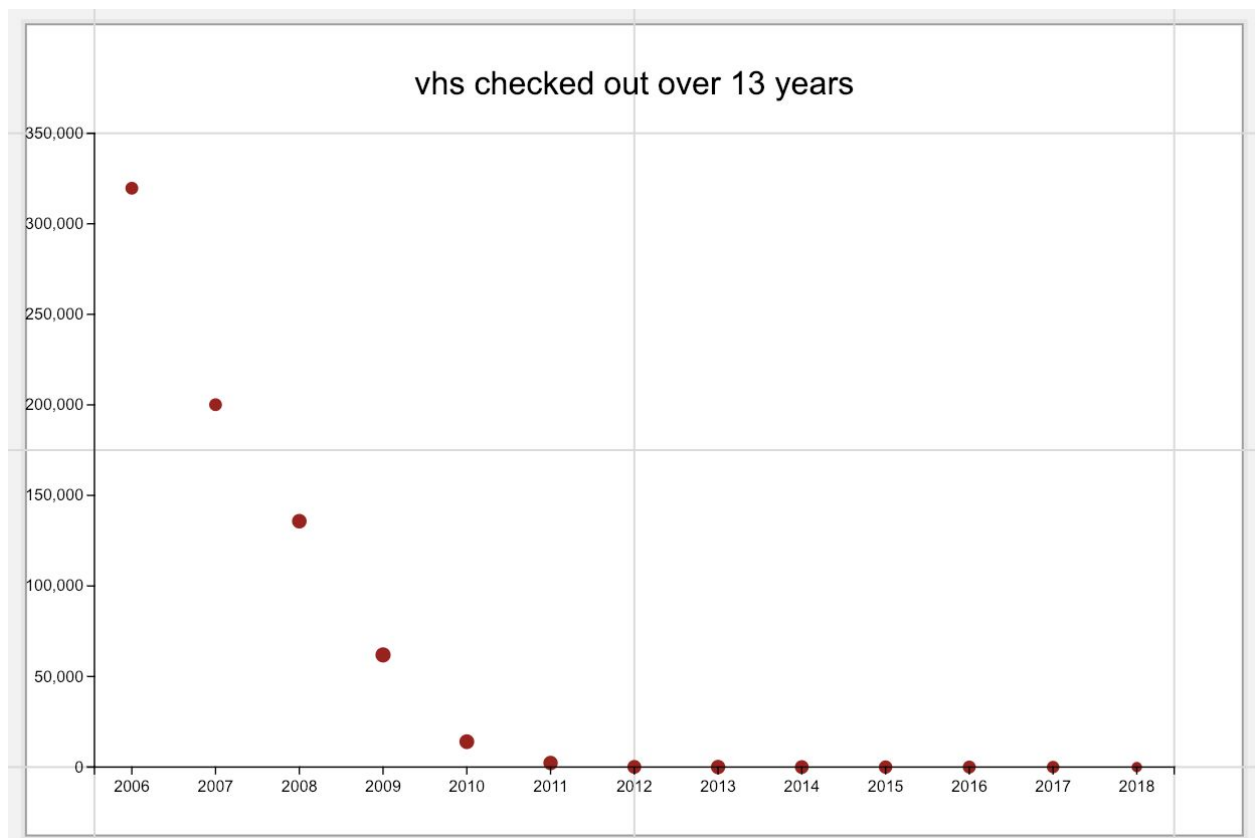
```
1 SELECT |
2     YEAR(cout) AS year,
3     Count(IF(itemType = "acbk", 1, null)) AS 'books',
4     Count(IF(itemType = "acvhs", 1, null)) AS 'vhs',
5     Count(IF(itemType = "acdvd", 1, null)) AS 'dvd'
6 FROM
7     spl_2016.outraw
8 WHERE
9     YEAR(cout) >= 2004 AND YEAR(cout) < 2019
10    AND (itemType = "acbk" or itemType = "acvhs" or itemType = "acdvd")
11 GROUP BY
12     year(cout)
13 ORDER BY YEAR(cout) DESC
```

Output

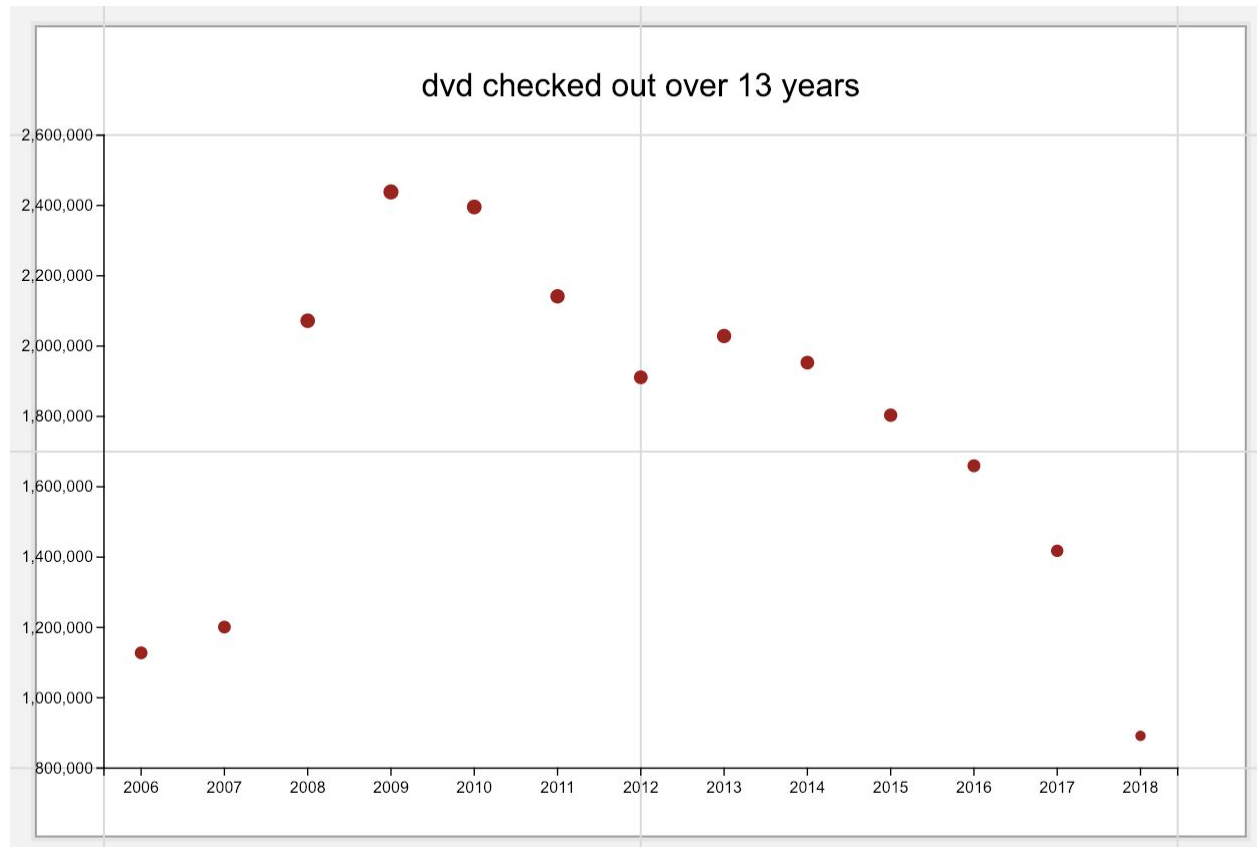
These are the results from running the query:

year	books	vhs	dvd
2018	1298718	0	891829
2017	1872184	1	1417955
2016	2034280	0	1659740
2015	2171663	0	1803582
2014	2286422	8	1953035
2013	2493136	30	2028736
2012	2307503	108	1911282
2011	2512464	2254	2141607
2010	2648816	14009	2395591
2009	2779062	61916	2438382
2008	2581712	1357...	2072146
2007	1976646	2000...	1201159
2006	1990657	3196...	1127784

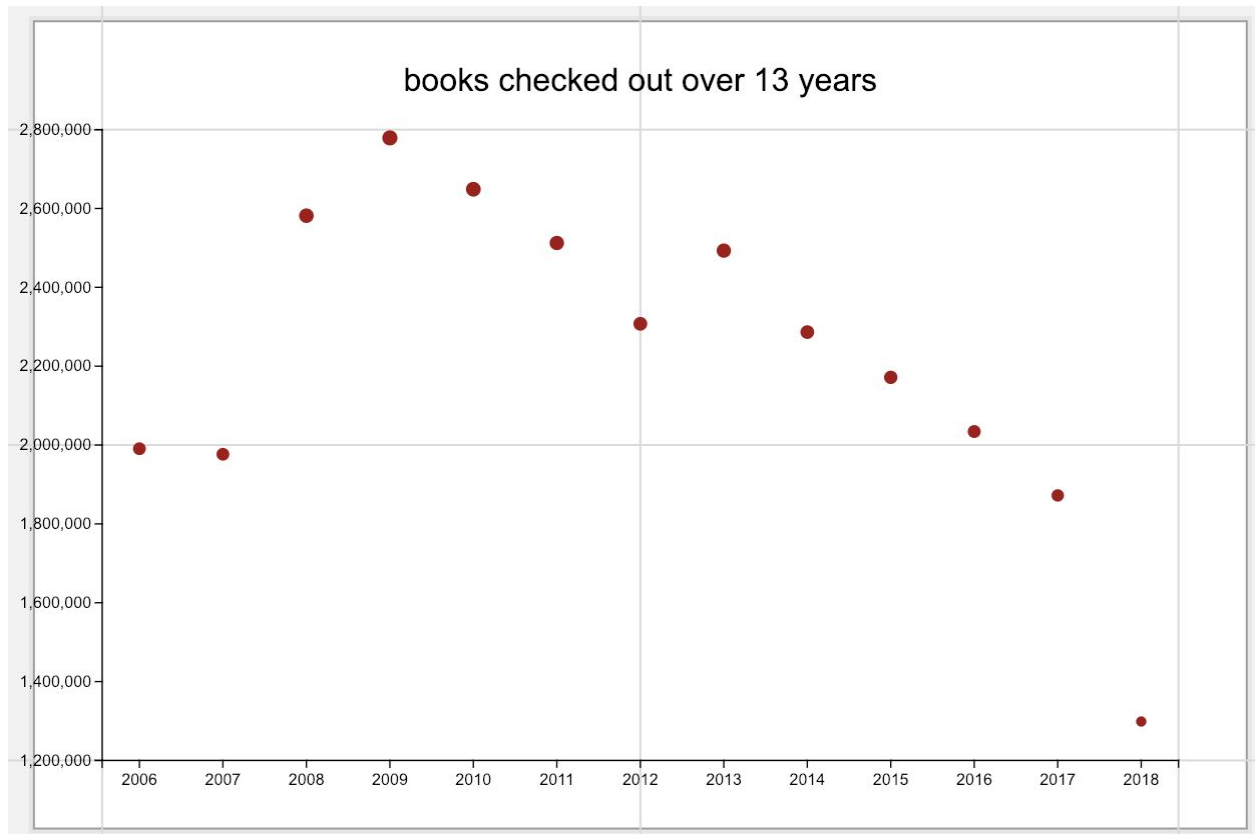
Results



The decline in checkouts for VHS tapes seemed to have happened very quickly between 2006 and 2007. There was a dramatic decrease in checkouts. Checkouts continued to decrease over the next couple years, but not as sharply.



DVDs were not very common until 2008. The sudden jump may have aligned with new technology or advances in DVDs. Blu-ray players started appearing late 2008. However, the library may not have carried many blu-ray DVDs, so this explanation may not hold.



The pattern for books seems to almost mirror the pattern for DVD checkouts. Over time, they both decreased after 2013.

Conclusion

The results for VHS is unsurprising. What is surprising though, is the dip in 2012 for both DVD and book checkouts. An event may have happened around that period to have made people less inclined to visit the library. These patterns also suggest that people may not visit libraries as often as they did in the past. The drop in checkouts for books and DVDs after 2017 is concerning. It may be related to the rise of eBooks and video streaming services.

At first, I had assumed the state of the US economy at the time may have had an effect on checkouts. I believed that there would be less checkouts during a recession. However, during the Great Recession from 2008-2009, checkouts had increased. The drop had actually started after the recession had ended.

The death of the VHS may have been the result of the increasing popularity of DVDs. But this wouldn't explain why books had also increased with DVDs.