

Predictability of
Film Success from
Book Data

By: Jannie Chang

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Question:

When a film is based on a book, is the success of film related to the popularity of the book?

So where did I get my data from?

IMDb film targets

- Amazon ID
- Year of release
- Box Office Gross

IMDb > [Divergent \(2014\)](#) > Box office / business



Watch It

Own the rights?

Buy it at Amazon

Box office / business for

Divergent (2014) [More at IMDbPro](#) »

Budget

\$85,000,000 (estimated)

Opening Weekend

\$54,607, (USA) (23 March 2014) (3,936 Screens)

£1,766,0 (UK) (6 April 2014) (423 Screens)

HUF 20,2 (Hungary) (23 March 2014)

PHP 33, (Philippines) (23 March 2014) (110 Screens)

Gross

\$150,947,895 (USA) (3 August 2014)

\$150,544,464 (USA) (20 June 2014)

IMDb

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News &
Community

Watchlist

IMDb > [Divergent \(2014\)](#) > Literature



Watch It

Literature for

Divergent (2014) [More at IMDbPro](#) »

Printed Media Reviews

Degré, Michaël. "Pas très audacieuse, mais...". In: "L'Avenir" (Bouge, Belgium), Editions de L'Avenir S.A., Iss. # 78, 2 April 2014, Pg. 17, (NP)

Gleiberman, Owen. "Divergent [B+]". In: "Entertainment Weekly" (USA), Iss. 1304, 28 March 2014, Pg. 45-46, (MG)

Lieven Trio. "En quelques lignes". In: "Metro" (Brussels, Belgium), n.v. Mass Transit Media, Iss. # 2962, 2 April 2014, Pg. 10, (NP)

Söderqvist, Jan. "Medryckande dystopi för Hungerspelens fans (4/6)". In: "Svenska Dagbladet" (Sweden), 30 April 2014, Pg. 25, (NP)

Original Literary Source

Philip. K. Dick. "Clans of the Alphane Moon". In: "wiki" (USA, GB), Ace, Vol. 1, Iss. 1, 1964, Pg. 189, (BK)

Roth, Veronica. "Divergent". (New York City, New York, USA), Katherine Tegen Books, HarperCollins, 2014, ISBN: 0062024027

Photo credit:

(http://www.imdb.com/title/tt1840309/literature?ref_=tt_ql_dt_8;

http://www.imdb.com/title/tt1840309/business?ref_=tt_ql_dt_4

Amazon book features

- Star rating
- Number of reviews
- Time passed between book and film
- Publisher

Product details

Hardcover: 336 pages

Publisher: Algonquin Books of Chapel Hill; Reprint (May 26, 2006)

Language: English

ISBN-10: 1565124995

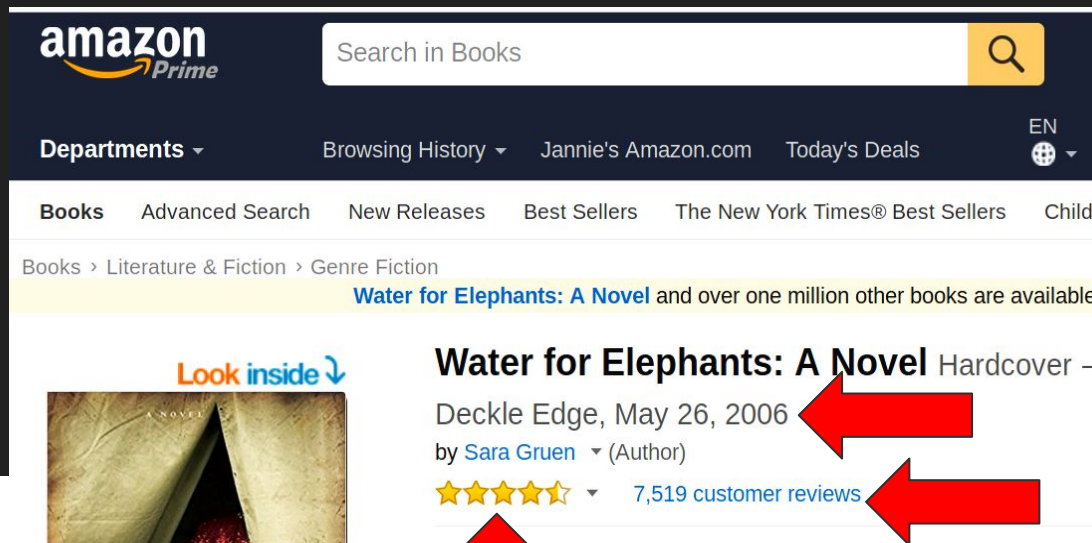
ISBN-13: 978-1565124998

Product Dimensions: 5.8 x 1.2 x 8.6 inches

Shipping Weight: 1.1 pounds ([View shipping rates and policies](#))

Average Customer Review: ★★★★★ (7,519 customer reviews)

Amazon Best Sellers Rank: #197,294 in Books ([See Top 100 in Books](#))

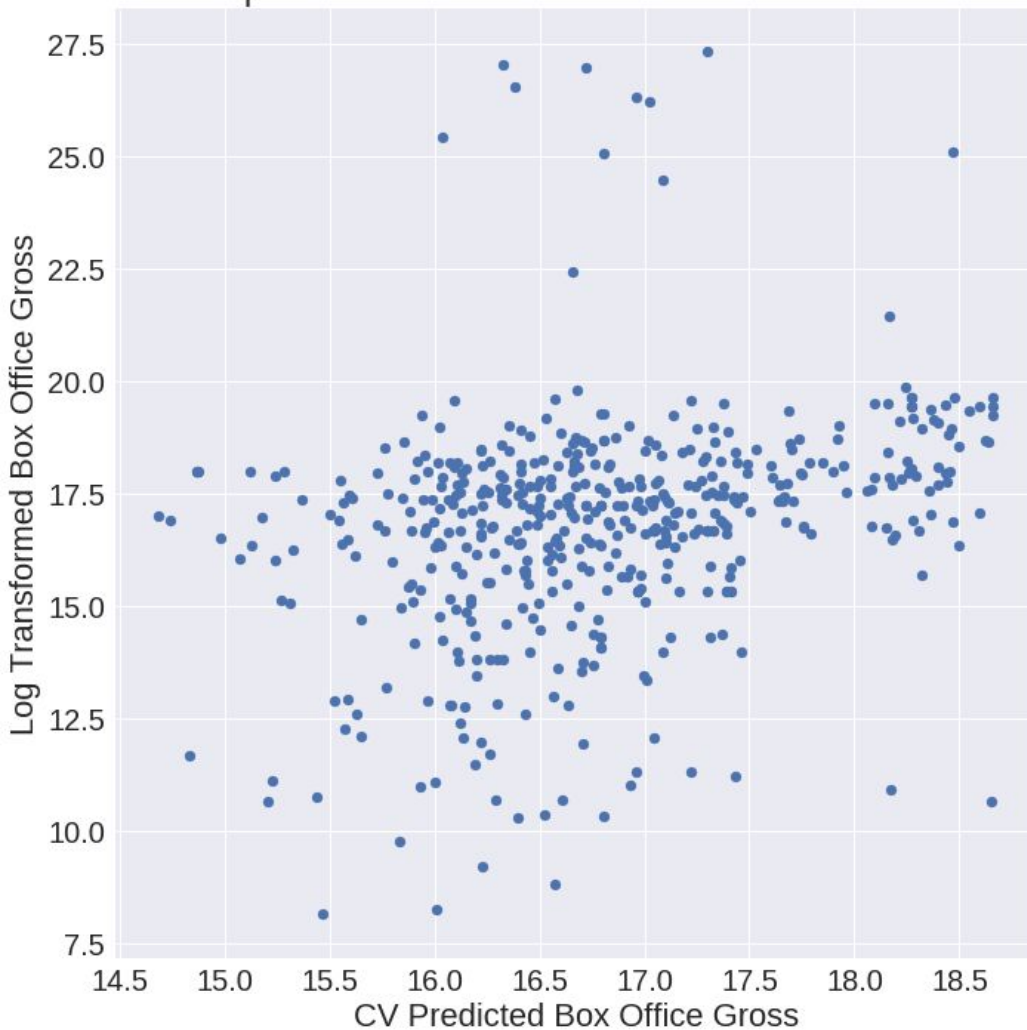


(Photo credit:

<https://www.amazon.com/exec/obidos/ASIN/1565124995/internetmoviedat/>

So do these book features predict
the film box office gross?

CV predicted Box Office vs. Observed Box Office



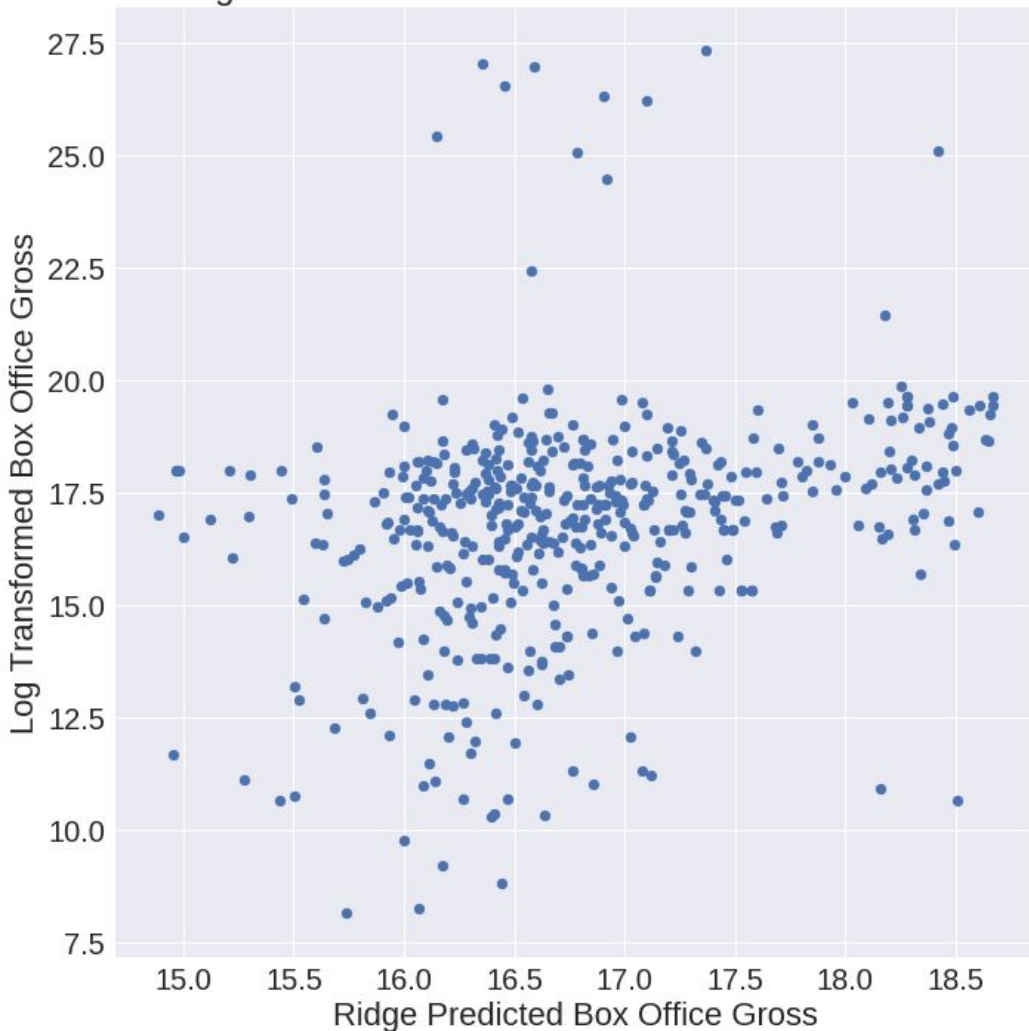
Linear Regression ('LR') with Cross Validation

Sample size: 472 films/books

Number of folds: 6

R squared: 0.0719559098628

Ridge Predicted Box Office vs. Observed Box Office



LR with Ridge Regularization Cross Validation

Sample size: 472 movies/books

Number of folds: 6

Regularization parameter:
.00001

R squared: 0.0752936776636

Conclusion

These book features do not predict the film box office gross.

Next Steps

- Acquire more information on books
- Add more features to the models
- Look for other relationships between books and films

Thank you.

Thank you.