



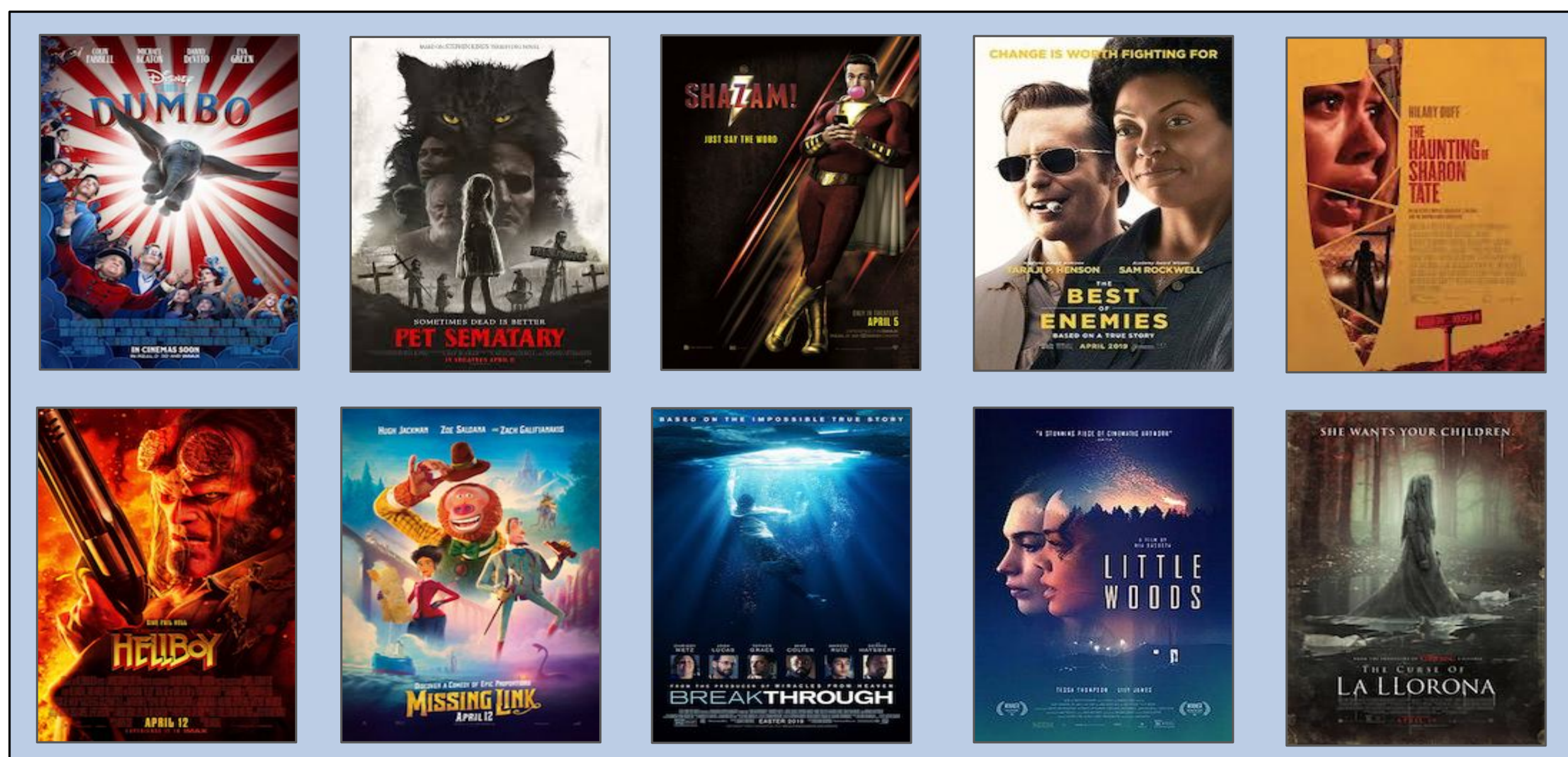
Twitter Reactions on Opening Weekend



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Introduction

- Interested in comparing the reaction on Twitter to movies coming out and comparing it against other factors
- Academia has already done great research at the intersection of film and Twitter



Research Questions

- How does the sentiment and readability of tweets correlate with box office returns? How about with critical reception? Genre?



$$206.835 - 1.015 \left(\frac{\text{total words}}{\text{total sentences}} \right) - 84.6 \left(\frac{\text{total syllables}}{\text{total words}} \right)$$



Data Collection and Cleaning

- Collected Tweets using rtweets (R) / Tweepy (Python)
- Filtered by English tweets
- Removed HTTP / HTTPS protocols
- Resulted in 40K Tweets from 10 Movies

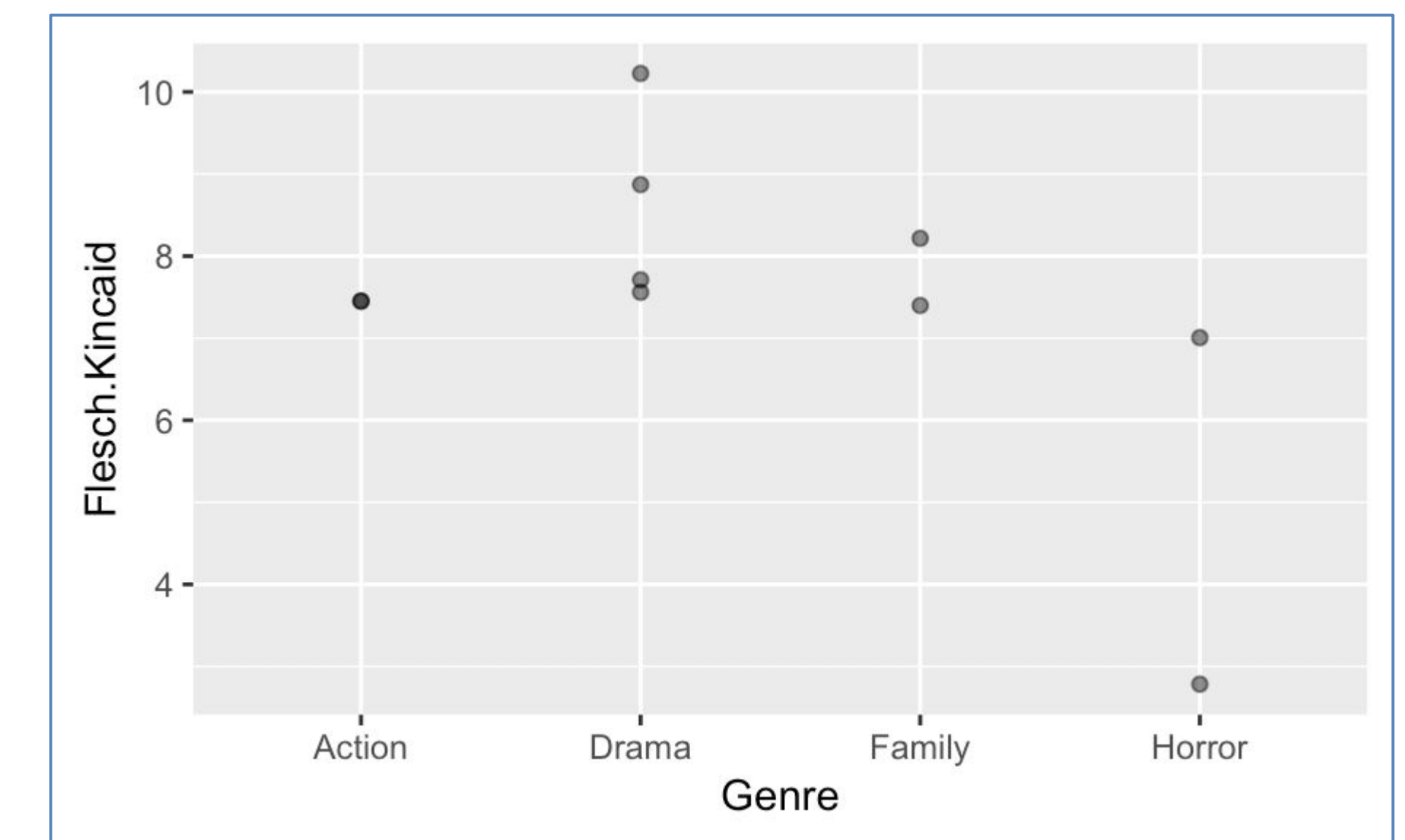
Sample Text: I ordered a small and expected it to fit just right but it was a little bit more like a medium-large. It was great quality. It's a lighter brown than pictured but fairly close. Would be ten times better if it was lined with cotton or wool on the inside.

Sentiment	Score
Mixed	0.89
Positive	0.09
Negative	0.01
Neutral	0.00



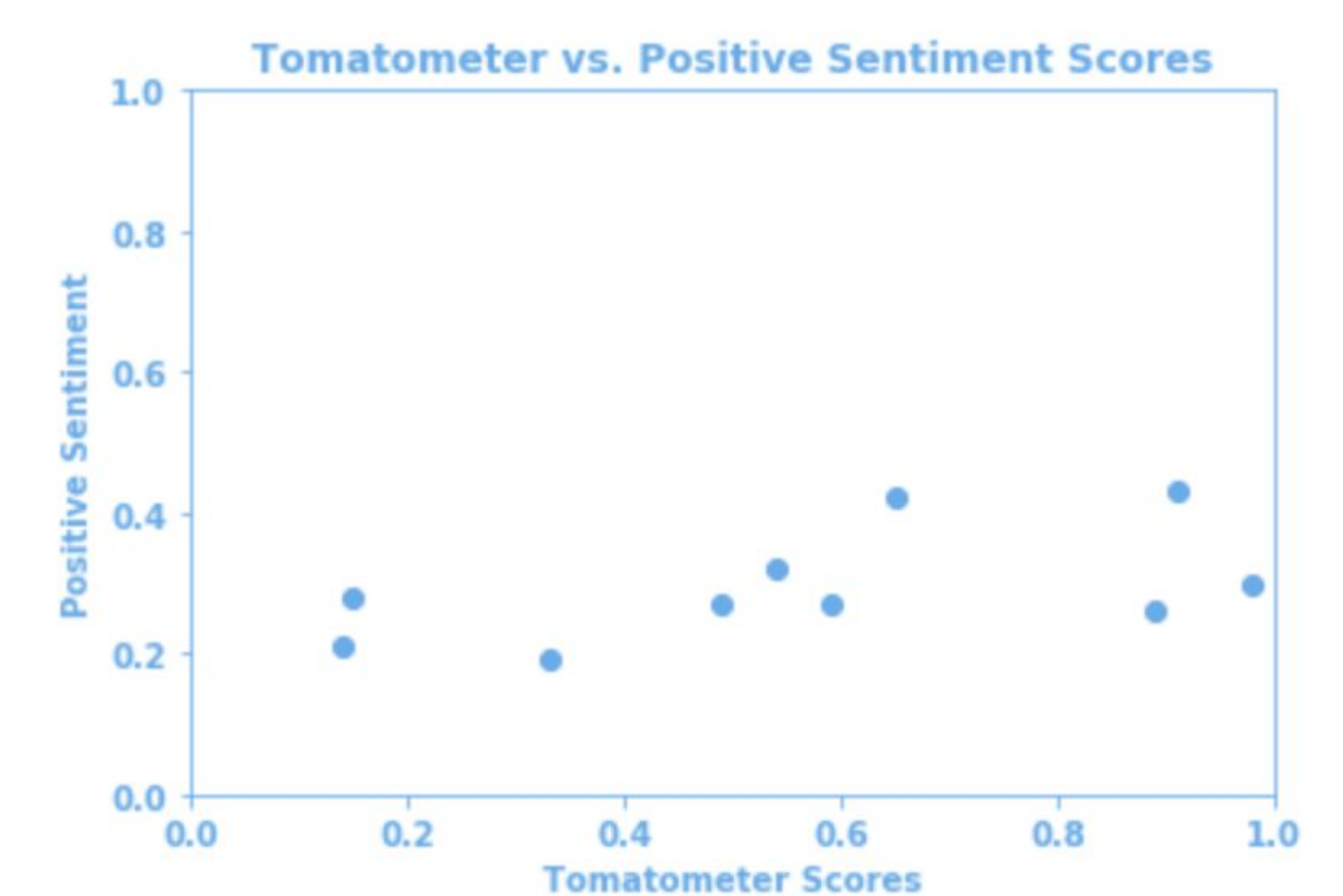
Readability Analysis

- Flesch-Kincaid readability analyzes what grade level is necessary to understand text
- Tweets had an average score of 7.5
- Outliers are La Llorona (2.8) and Best of Enemies (10.2)
- Readability of tweets seemed more due to genre than box office or critical reception



Sentiment Analysis

- Amazon Comprehend, an API, can classify text by sentiment and a corresponding confidence score
- Shazam had the highest percentage of positive tweets - 43%. Shazam was also critically acclaimed and recouped its budget in its OW
- The plot displays a medium positive correlation between the Tomatometer score and positive sentiment
- Correlation between sentiment and box office performance is inconclusive



Conclusions & Takeaways

- Usage of tweets to predict box office performance is inconclusive, might be helpful in extreme cases
- Different genres prompt different social media responses from audiences
- Sentiment analysis shows some correlation between positive sentiment and critical/audience reception