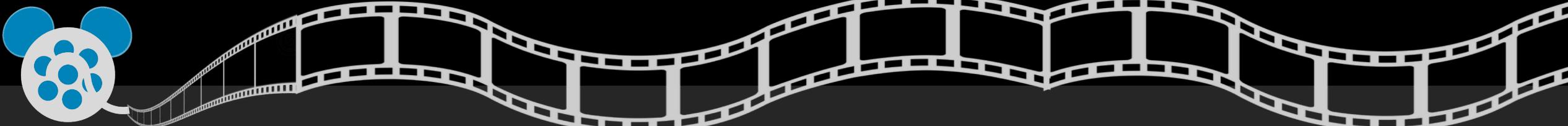
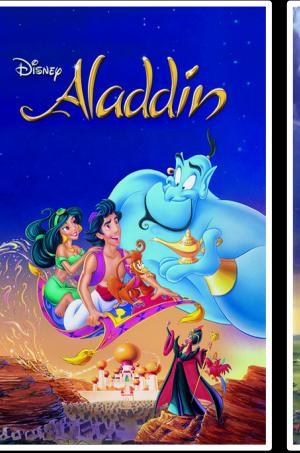
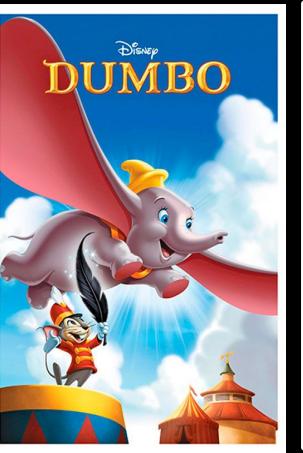
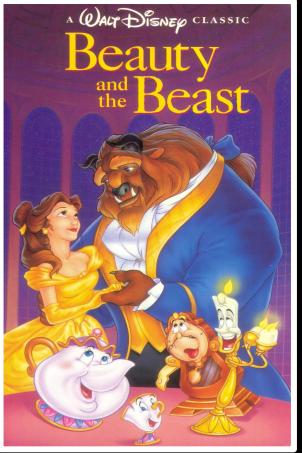
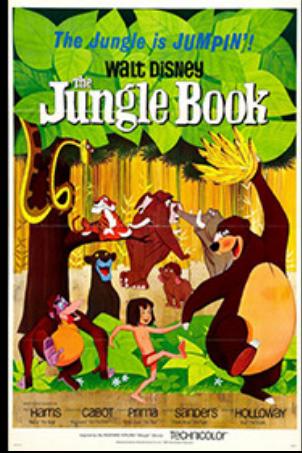
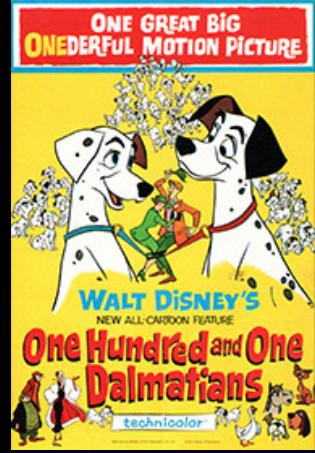
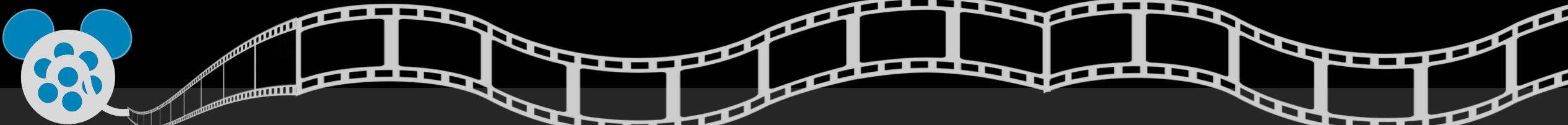
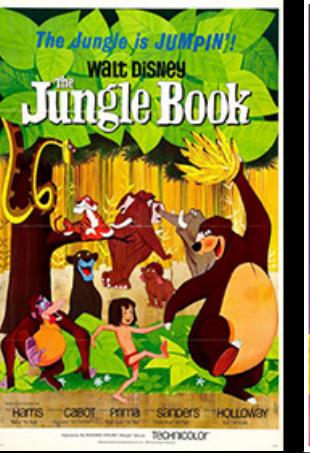
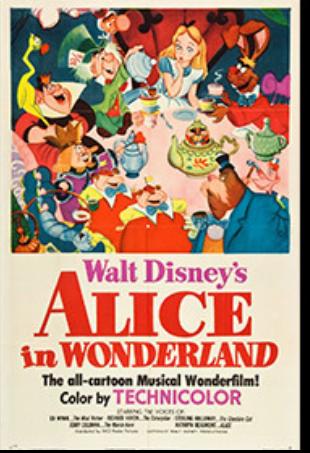
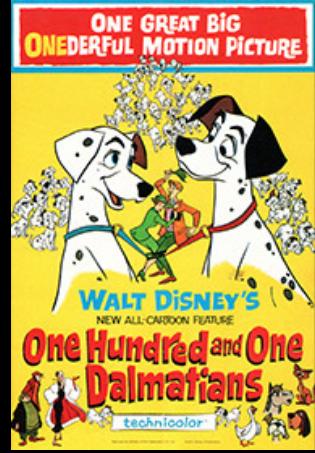


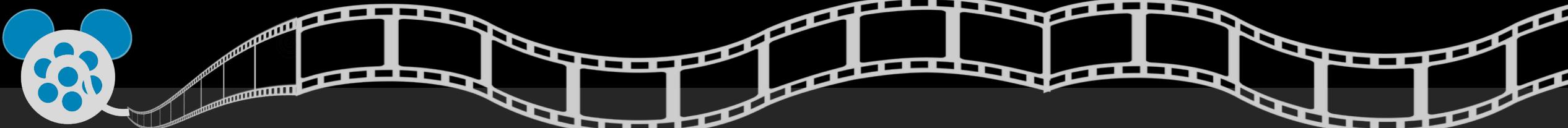
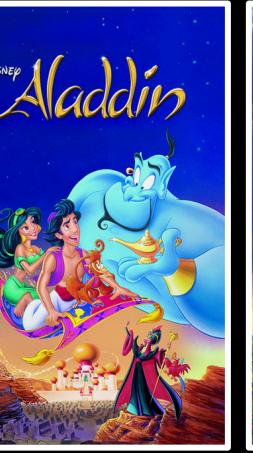
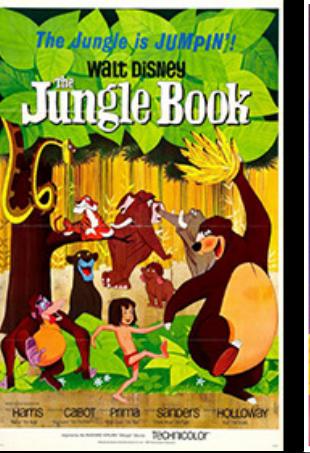
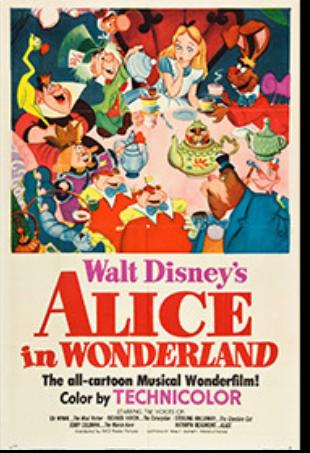
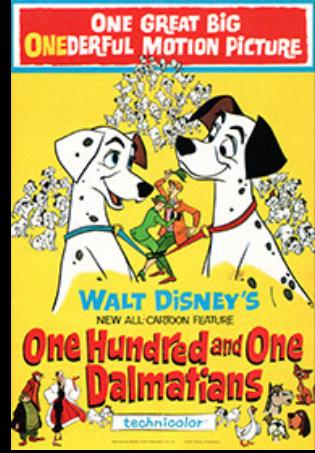
Disney Live-Action Remakes Audience Reviews of Retold Stories

BY: KRISTEN TOKUNAGA









OBJECTIVE

Predict audience sentiment of Disney live-action remakes

Recommend movie features to replicate or adjust in future films, based on their impact on audience sentiment



METHODS

Data

Sources:

IMDb

**Rotten
Tomatoes**

Sample Size:

44,597 reviews



METHODS

Data

Sources:

IMDb

**Rotten
Tomatoes**

Sample Size:

44,597 reviews

Tools



BeautifulSoup



python

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$

spaCy

gensim



METHODS

Data

Sources:

IMDb

Rotten Tomatoes

Sample Size:

44,597 reviews

Tools



BeautifulSoup



python

pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$

spaCy

gensim



Metrics

Predict:



vs.



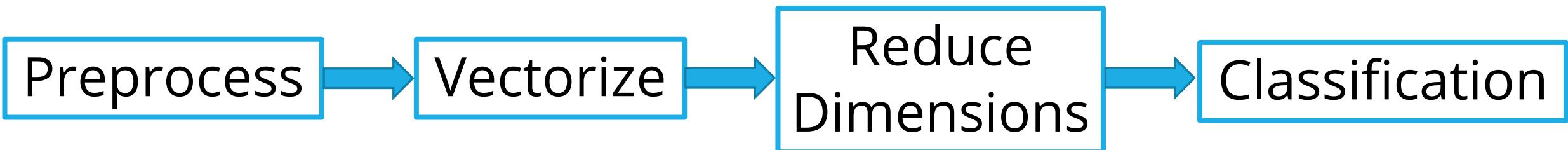
reviews

Features:

Topics obtained
from unsupervised
learning



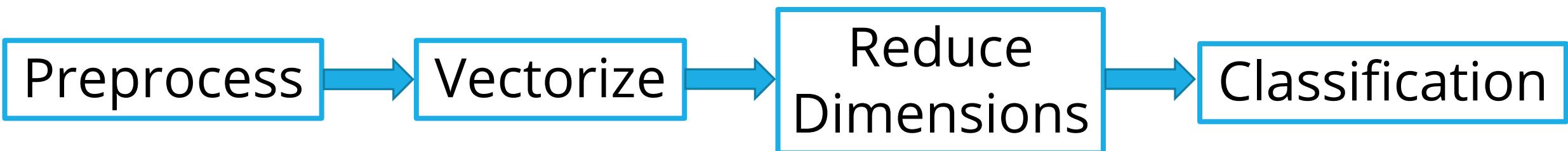
METHODS



• Lowercase



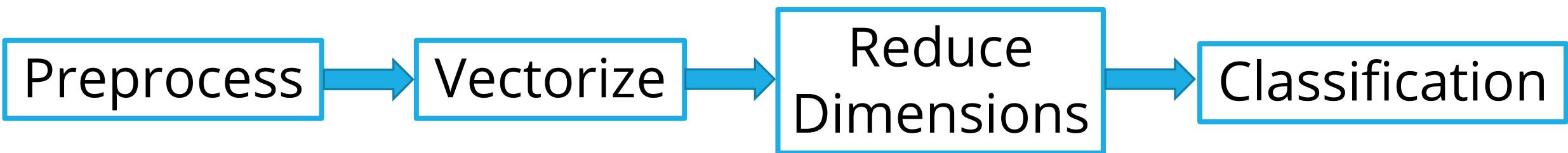
METHODS



• lowercase



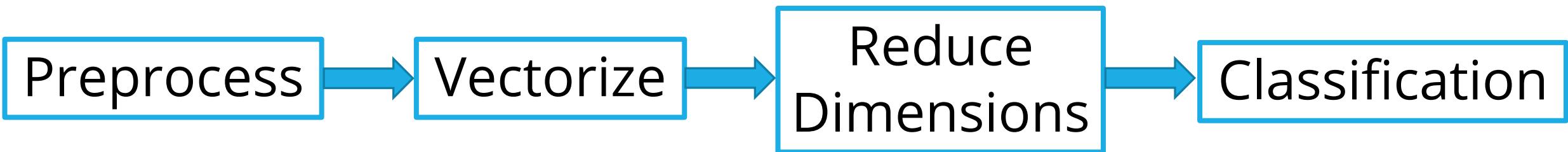
METHODS



- lowercase
- Lemmatization



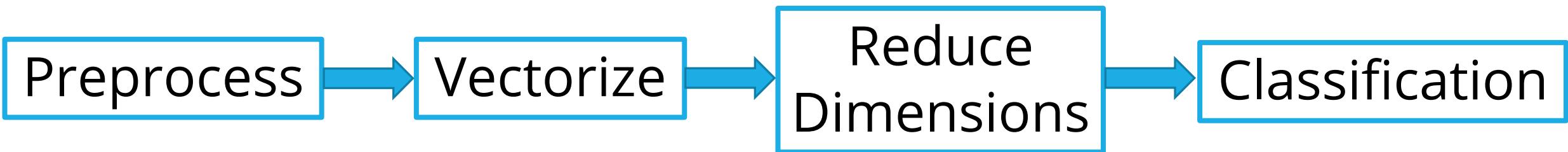
METHODS



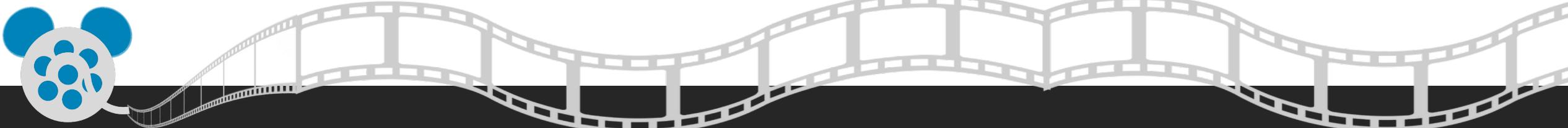
- lowercase
- Lemmatize



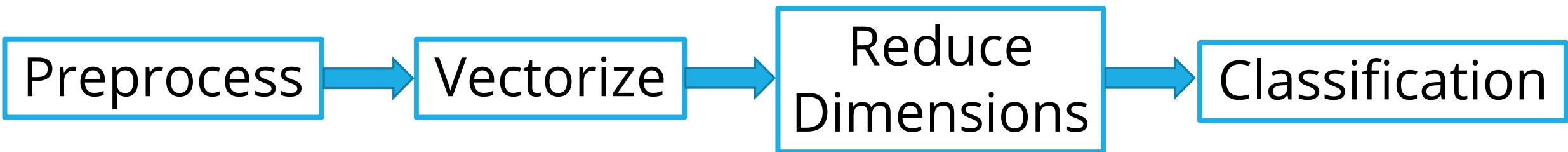
METHODS



- lowercase
- Lemmatize
- X Stop words
- X !"#\$&',./;:@~
- X 123



METHODS

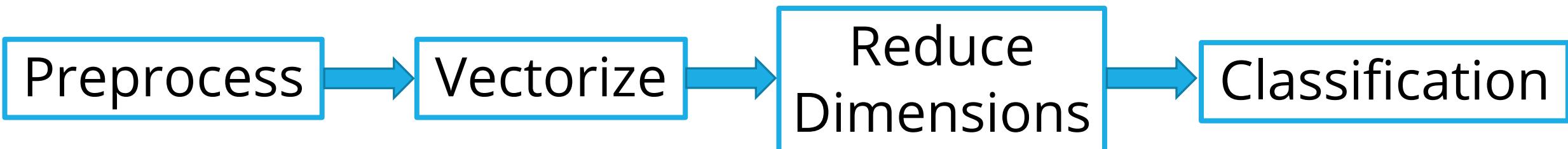


- lowercase
- Lemmatize
- X Stop words
- X !"#\$&',./:;?@~
- X 123

- CountVec
or
- TF-IDF



METHODS



- lowercase
- Lemmatize
- X Stop words
- X !"#\$&',./;:@~
- X 123

- CountVec
- or
- TF-IDF

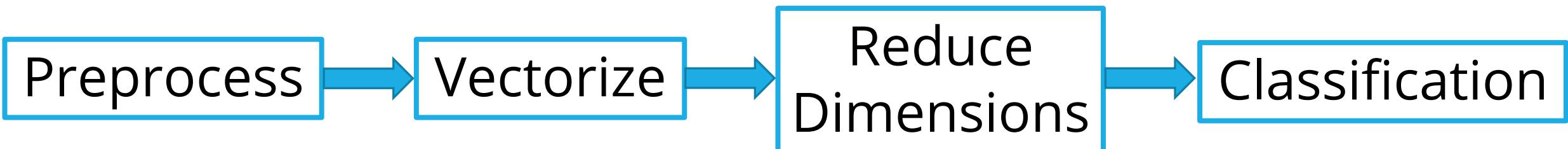
Reduce
Dimensions

- LSA
- or
- NMF
- or
- LDA

Classification



METHODS



- lowercase
- Lemmatize
- X Stop words
- X !"#\$&',./:;?@~
- X 123

- CountVec
- or
- TF-IDF

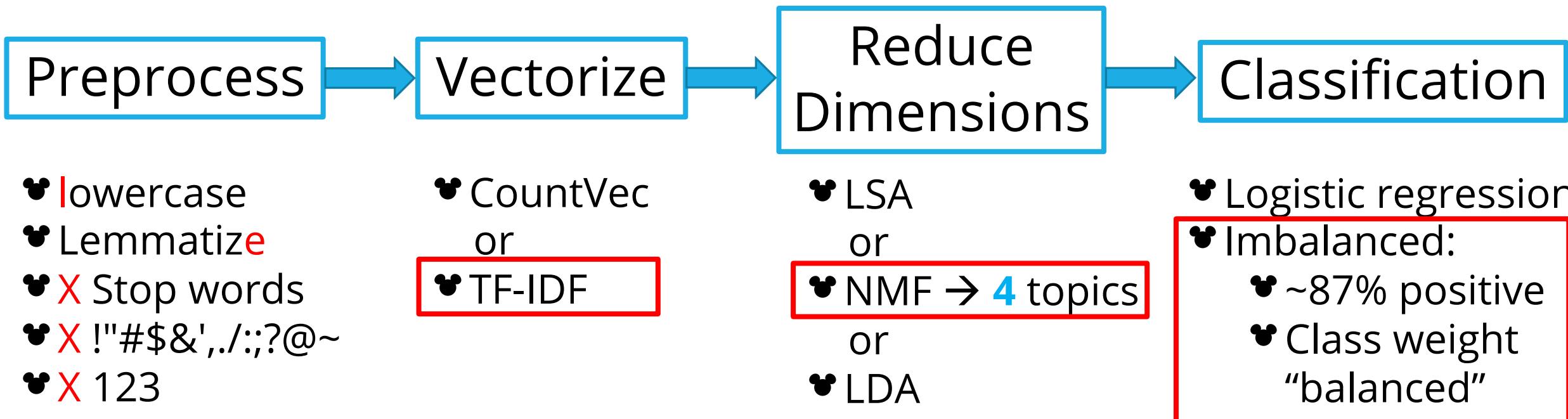
Reduce
Dimensions

- LSA
- or
- NMF
- or
- LDA

- Logistic regression



METHODS



RESULTS

Model Inputs

Logistic regression

Class weight = "balanced"

4 topics created from TF-IDF, NMF

0.72 ROC AUC



RESULTS

Topics	Audience Reviews
Cast ("will smith")	👍
"cgi"	👎
"not original"	👎



RECOMMENDATIONS

Casting helps



Limit CGI

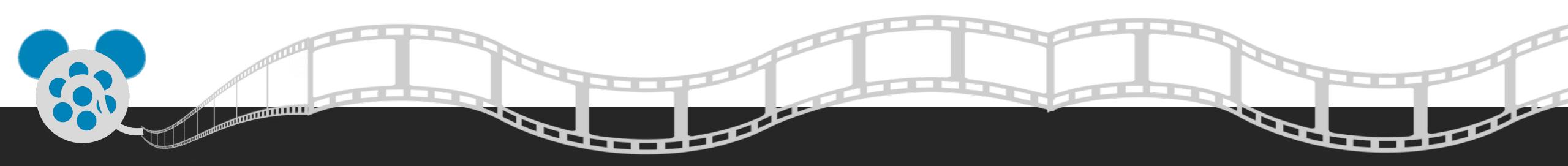


Be original



FUTURE WORK

- Cost-benefit analysis of hiring famous actors
- Deeper dive into negative reviews
- Additional Data Sources:
 - Social media comments
 - “Original” remakes (ex. Maleficent, Tim Burton films)
 - International audience



THANK YOU



APPENDIX

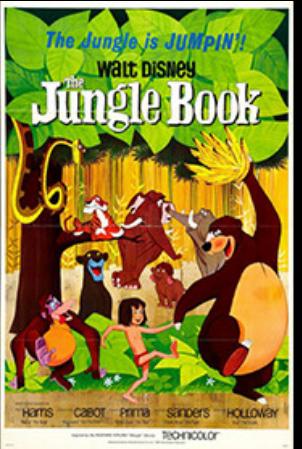
Coefficients	Topics (Features)
-0.54	not, original, like, well, make, remake, story, feel, character, new, version, song, time, animate, voice, amaze, scene, look, lion, classic, no, little, animal, only, enjoy, cgi, way, cast, beautiful, real
0.54	love, amaze, kid, smith, awesome, beautiful, old, music, song, genie, story, lion, aladdin, time, new, version, make, real, character, animal, little, fun, actor, loved, way, cast, enjoy, animate, look, well
0.50	great, smith, loved, genie, music, cast, story, fun, awesome, amaze, classic, kid, enjoy, remake, aladdin, act, actor, song, make, new, beautiful, little, old, character, voice, time, cgi, animate, version, well
0.09	good, smith, genie, enjoy, music, aladdin, make, act, story, fun, actor, cast, version, kid, song, little, animate, awesome, cgi, character, classic, old, amaze, scene, feel, time, only, voice, beautiful, look



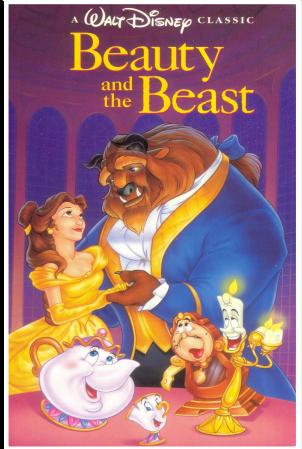
1950
\$170



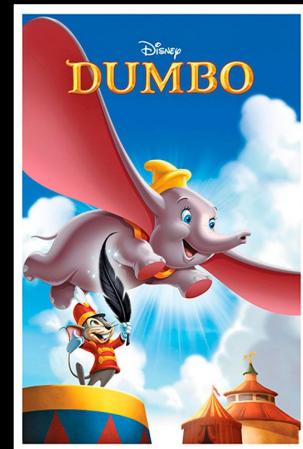
1967
\$506



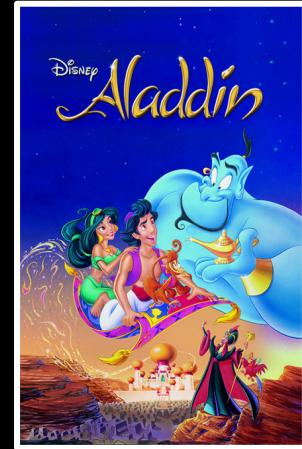
1991
\$315



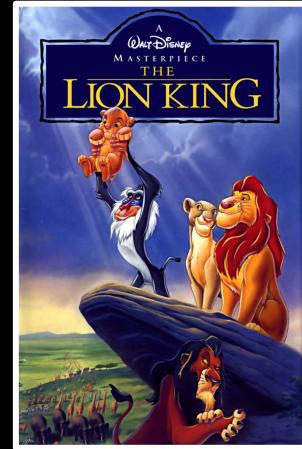
1941



1992
\$473



1994
\$803



\$ = Domestic gross
(in millions), adjusted for
inflation¹⁻²

PB = Production Budget



1. <https://www.businessinsider.com/disney-animated-movies-compared-to-live-action-remakes-box-office-2019-5>

2. <https://www.businessinsider.com/top-disney-animated-movies-at-us-box-office-lion-king-2019-8>

2015
\$219
PB: \$95

2016
\$376
PB: \$175

2017
\$512
PB: \$160

2019

2019
\$356
PB: \$183

2019
\$543
PB: \$260

