Moderate vs. Extreme Reviews

General Penalized Model

Train_id	Classification Rate
Train	0.7995455
Valid	0.7402273

Different Adjectives

```
nice -0.0716826945 0.0716826945 word 0.0008964487 -0.0008964487 absolutely 0.0293593248 -0.0293593248 terrible 0.0405415305 -0.0405415305 decent -0.0087387620 0.0087387620 horrible 0.0417483503 -0.0417483503 solid -0.0510277881
```

"et disappointing adaption of al decent Istory. Corey Haim is terrible,"

"role. I'll admit that he did al nice ljob acting, but his singing so"

Penalized Model with Only Some POS Tags

ADJ, ADV, NOUN, VERB

Train_id	Classification Rate
Train	0.7938636
Valid	0.7281818

Best Features

	Extreme	Moderate
(Intercept)	3.966023e-02	-3.966023e-02
well	-3.286717e-02	3.286717e-02
much	-1.955484e-02	1.955484e-02
also	-2.929183e-05	2.929183e-05
too	-6.274911e-03	6.274911e-03
play	-1.492658e-03	1.492658e-03
seem	-2.772340e-02	2.772340e-02
little	-6.727957e-02	6.727957e-02
ever	1.628710e-01	-1.628710e-01
pretty	-1.008417e-01	1.008417e-01
however	-4.663320e-04	4.663320e-04
interesting	-3.020188e-02	3.020188e-02
nice	-3.447623e-02	3.447623e-02

"of said escapade. The movie is **well**-acted by all, save for perhaps"

"let down by a tendency to use **too** much unnecessary dialogue. Yes"

Some Misclassifications

Extreme => Moderate

Agreed this movie is well shot, but it just makes no sense and no use as to how they made hours seem like just over a small love story,

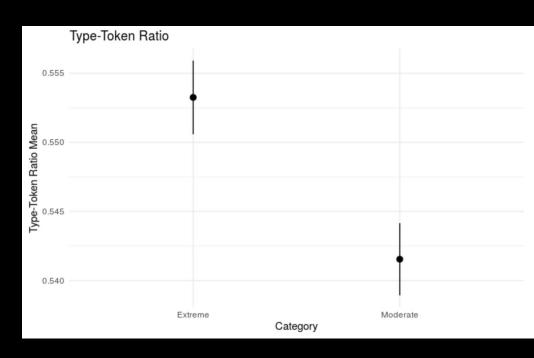
this could have been an episode of the bold and the beautiful or the o.c, in short please don't watch this movie because there is a song every minutes just to wake you up from you're sleep, i gave this movie / cause that was the lowest, and no this is not based completely on a true story, more than half of it is made up.I repeat the direction of photogr

Moderate => Extreme

N-grams

Around 55.3% of the words are unique for Extreme and 54.2% of the words are unique for Moderate

```
token_summary <- token %>%
 group_by(doc_id) %>%
 filter(!is.na(lemma)) %>%
  summarize(
   type_token_ratio = length(unique(lemma)) / n(),
   num\_tokens = n(),
imdb %>%
 inner_join(token_summary, by = "doc_id") %>%
 group_by(category) %>%
 summarize(sm_mean_ci_normal(type_token_ratio)) %>%
 arrange(desc(type_token_ratio_mean)) %>%
 ggplot() +
   geom_pointrange(aes(
     x = category,
     y = type_token_ratio_mean,
     ymin = type_token_ratio_ci_min,
     ymax = type_token_ratio_ci_max
 labs(x = "Category", y = "Type-Token Ratio Mean", title = "Type-Token Ratio")
```



N-Grams

	Extreme	Moderate
(Intercept)	0.086871477	-0.086871477
а	-0.008445146	0.008445146
this	0.017418596	-0.017418596
but	-0.051842500	0.051842500
as	-0.008722063	0.008722063
see	0.003671030	-0.003671030
, but	-0.009635434	0.009635434
this movie	0.013292762	-0.013292762
the film	-0.001317934	0.001317934
much	-0.004045187	0.004045187
seem	-0.006289010	0.006289010
little	-0.042595643	0.042595643
ever	0.165961419	-0.165961419
be so	0.042064347	-0.042064347
pretty	-0.097168830	0.097168830
however	-0.004065603	0.004065603
interesting	-0.033996835	0.033996835
see this	0.018933299	-0.018933299
a little	-0.017614517	0.017614517
! -PRON-	0.040740395	-0.040740395
not even	0.004629384	-0.004629384
nice	-0.031710355	0.031710355
have ever	0.039205060	-0.039205060
ever see	0.050647566	-0.050647566
ASACAM STORAGE		The state of the s

Train_id	Classification Rate
Train	0.8050000
Valid	0.7477273

- [1] "ne are quite amusing, there'rel not even Ithe funniest in Hitchcock's fi"
 [2] " But I'd never buy it, there's I not even Ispecial features on the DVD! W"
 [3] "ter is anything but a hoodlum, I not even Iclose, i know hoods and am par"
 [4] "s. Unfortunately, \"Grease \" is I not even Iunintentionally funny. Instead'
 [5] "ven if I am from Switzerland). I Not even Ithe special effects were as go"
 [6] "o interesting or exciting. I'm I not even Ia little convinced he and his "
 [7] "n, Natalie Portman, etc). It's I not even Iso much that the film- set pra"
 [8] "cartoons!

 '>

 '>They are I not even Itrying anymore!

 '>

 '>Oh"
 [1] "tension it requires, nor do wel ever see Ior meet any other students--ha"
 [2] "ming, delightful movies you'll! ever see Ias a kid. It's the unforgettab"
 [3] "n the wrong man! Anyway if you! ever see Ithis movie on TV watch it beca"
 [4] "back In were the best TV I'll! ever see. I Beacher assaulting Vern In th"
- [6] "y. In any event, if you should! ever see |another movie in which a hyste"
 [7] "nd the stiffest dancing you'll! ever see, | Elvis's dignity is obliterate"
 [8] "ar the funniest thing you will! ever see |in your life. You can compare "

[5] "st science fiction film you'll! ever see. | And you almost have to give i"

N-Grams

The model was very confident in these 4 reviews.

One is misclassified
 Mistaken for Moderate
 The rest are correctly classified
 Makes sense

Extreme => Moderate (1.00000)

Back in the mid/late's, an OAV anime by title of "Bubblegum Crisis" (Which I think is a military slang term for when technical equipment goes haywire) made its debut on video, taking inspiration from "Blade Runner", "The Terminator" and maybe even "Robocop", with a little dash of Batman/Bruce Wayne - Iron Man/Tony Stark and Charlie's Angel's girl power thrown in for good measure. episodes long, the overall story was that in st century Tokyo, Japan, year -, living machines called Boomers were do

Extreme => Extreme (0.99338)

Larry Bishop directs, writes, and leads this soft core porn, plot less biker movie about nothing to do with anything. To call this one of the worst movies of is being kind to the garbage that I spent money on while in theaters. Its one of the worst movies I have ever seen. I felt sorry for the girls mostly, who probably think they're in the making of a feature film, when in all reality they're making a porno. They walk on the set for four days, say some sexual lines to disgusting old men -- thi

Extreme => Extreme (0.99302)

Okay wait let me get this street, there are actually some morons on this site who reckon this is one of the better if not the best Halloween sequel. I even read someone saying it was just as good as the original. Pah what nonsense don't believe them I've watched every Halloween and clearly unlike some people knows what makes at the very least a good horror movie and this shower of S is one of the Worst horror movies i have ever seen in my life. Frankly if i was John Carpenter i would sue the per

Moderate => Moderate (0.99896)

Wrestlemania , is an entertaining Wrestlemania, if not an entirely successful one. The Ultimate Challenge, is of course worth the price of admission alone, but once again as with a lot of the early Mania's, there's too much filler in between. The crowd pops for almost everything, and as always, giving us the reliable announcing team of Gorilla&The Body. Having a Face vs Face match as the main event for a Wrestlemania, was absolutely unheard of at this time, it only made things that much more ten

Model trained on misclassified entries

Took misclassified examples from bigram model (tended to perform the best)

Created new models based on this modified dataset.

Experimented with fold numbers (smaller dataset)

Bi-grams worked the best

Train_id	Classification Rate
Train	0.8194444
Valid	0.6932234

Higher spread between training and validation classification rate, potential overfitting, nothing new being learned.

Misclassified Betas (Bi-grams)

	Extreme	Moderate
(Intercept)	0.085030128	-0.085030128
а	-0.005631855	0.005631855
this	0.002856725	-0.002856725
but	-0.044155329	0.044155329
as	-0.002944612	0.002944612
, but	-0.000180289	0.000180289
this movie	0.006059516	-0.006059516
little	-0.018311358	0.018311358
ever	0.137714274	-0.137714274
pretty	-0.053987463	0.053987463
have ever	0.021206792	-0.021206792

	Extreme	Moderate
(Intercept)	-0.379384002	0.379384002
a a	0.016225448	-0.016225448
this	-0.023449816	0.023449816
but	0.142173776	-0.142173776
, but	0.009404823	-0.009404823
, the	0.025807284	-0.025807284
seem	0.033903618	-0.033903618
little	0.197922810	-0.197922810
ever	-0.267674231	0.267674231
be so	-0.016238174	0.016238174
interesting	0.079755710	-0.079755710
pretty	0.018199381	-0.018199381
a little	0.003635101	-0.003635101
direction	0.027632108	-0.027632108
recommen	d -0.061816126	0.061816126

Misclassified model shortcomings

Extreme => Extreme (1.00000)

Back in the mid/late s, an OAV anime by title of "Bubblegum Crisis" (which I think is a military slang term for when technical equipment goes haywire) made its debut on video, taking inspiration from "Blade Runner", "The Terminator" and maybe even "Robocop", with a little dash of Batman/Bruce Wayne - Iron Man/Tony Stark and Charlie's Angel's girl power thrown in for good measure. episodes long, the overall story was that in st century Tokyo, Japan, year -, living machines called Boomers were...

Moderate => Extreme (0.97092)

I hate films about sports. I guess the pre-fabricated Hollywood sports film is a bit tough for me to swallow because it follows the most identical of ideas each year, what I am trying to say is that there isn't much creativity in this genre. Use exhibit "A" \square "The Game Plan" as evidence of this if you want. So, needless to say, I was hesitant to watch this documentary because of the sports theme element, but at the same time I couldn't wait because I love surfing documentaries like...

More misclassified model shortcomings

Ever (Moderate)

- "...and painful horror film I have | ever | seen in my life. To know that ..."
- "...the world's greatest car chase | ever | make this movie a lot of fun..."
- "...delightful movies you'll | ever | see as a kid. It's the unforgettable..."

But (Extreme)

- "...was bandied about in publicity | but | you never know how reliable a..."
- "I still act and do some TV, | but | not as much. Oh and if you want..."
- "...classic like his earlier films | but | it's still enjoyable. I liked..."

Little (Extreme)

- "...lievable.There is surprisingly | little | gore but the scenes of dental..."
- "...into it like I did because this | little | known gem receives no word-of-mouth..."
- "...and 'crash-bang' fiesta, but a | little | bit of energy and action would..."

Thank You!