

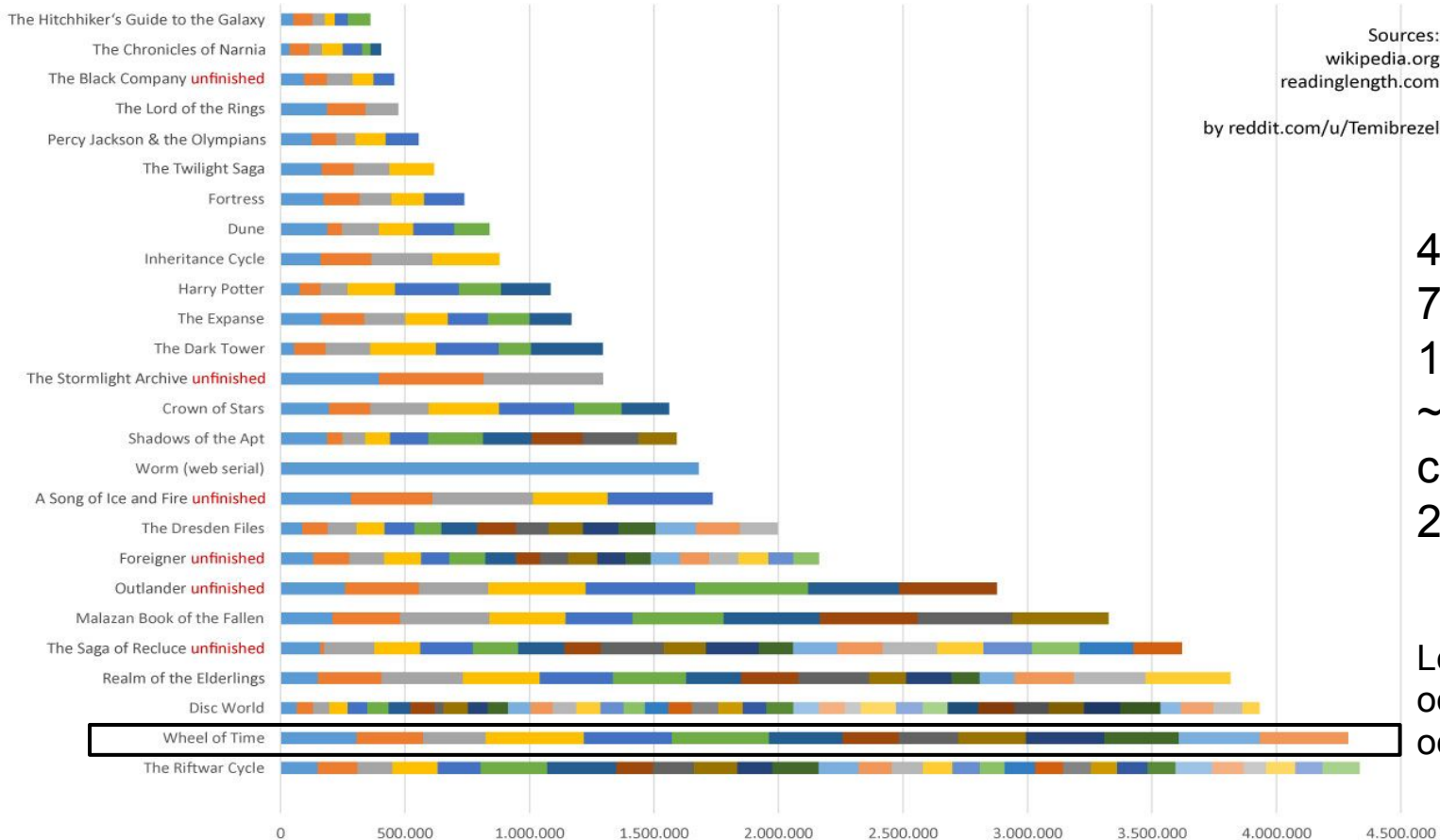
The Wheel of Time, 5000x condensed

Spoiler alert, but you won't remember all the names so it's ok



The Wheel of Time: ages come and pass as you read

The ultimate chosen one saves the world fantasy series



4.4 million words
700+ chapters
19 days of audio
~2800 named
characters
2 authors

Looooooooooooooooooooo
oooooooooooooooooooooooo
ooooooooooooooooooooong

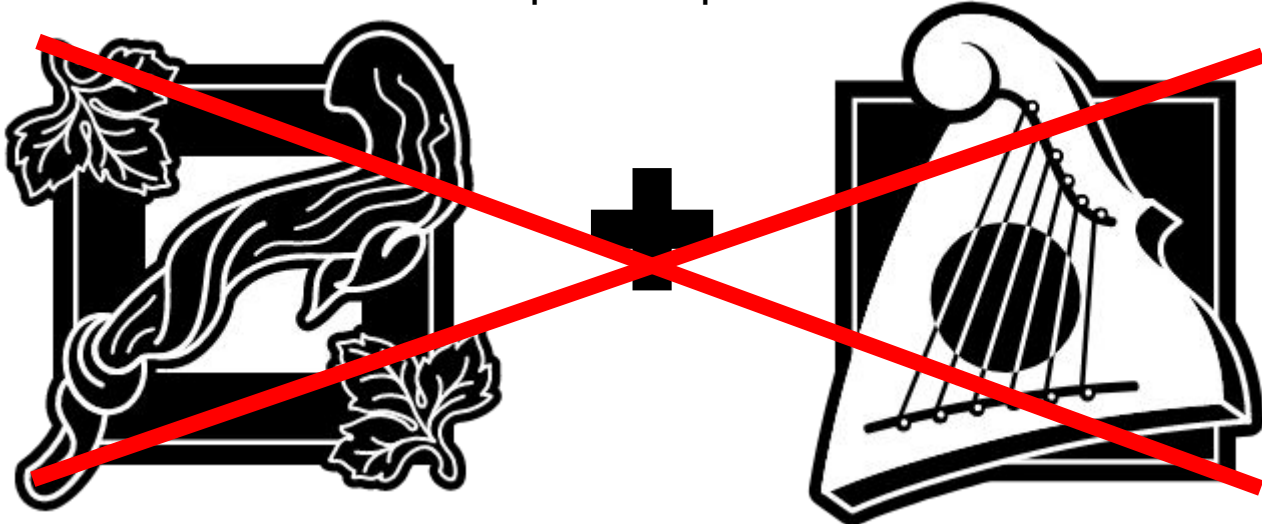
Project Goals

Make sense of the series through topic modeling

Find important characters/events and trace evolution through series

See how topics correlate with book ratings

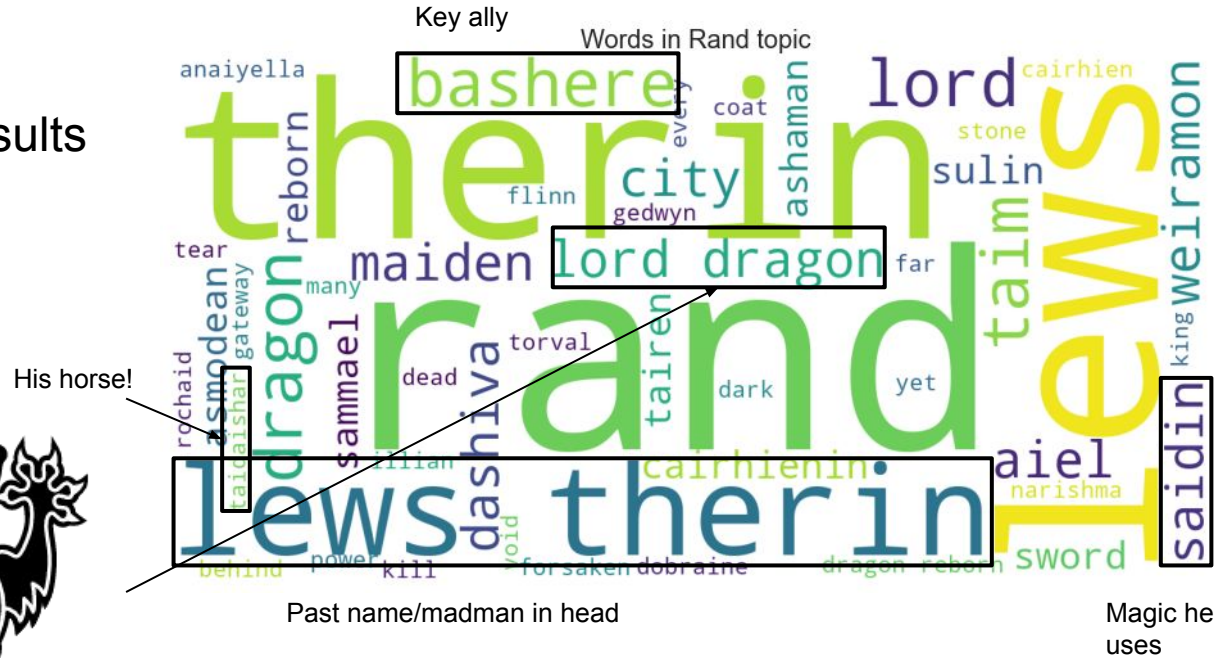
Convince TV Showrunners to drop some plotlines and romances



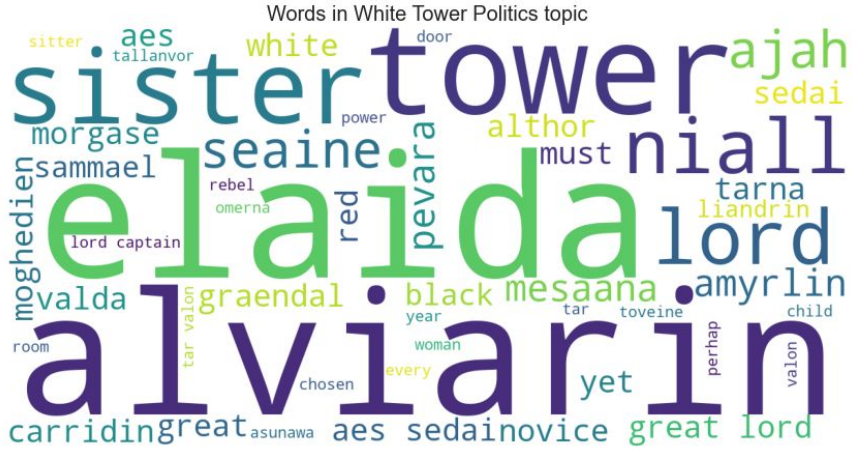
Topic Modeling initial results

TfidfVectorizer + NMF on chapters gives amazing results

Topics mostly focused on important characters and groups

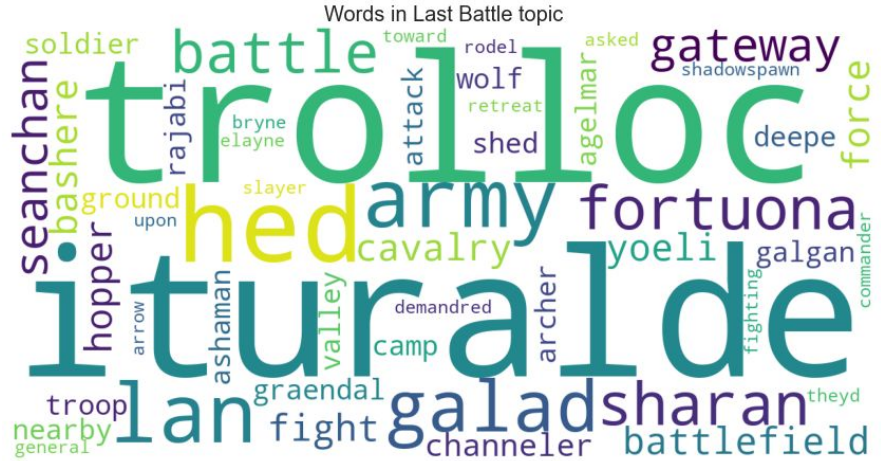


Other topic types



Recurring groups

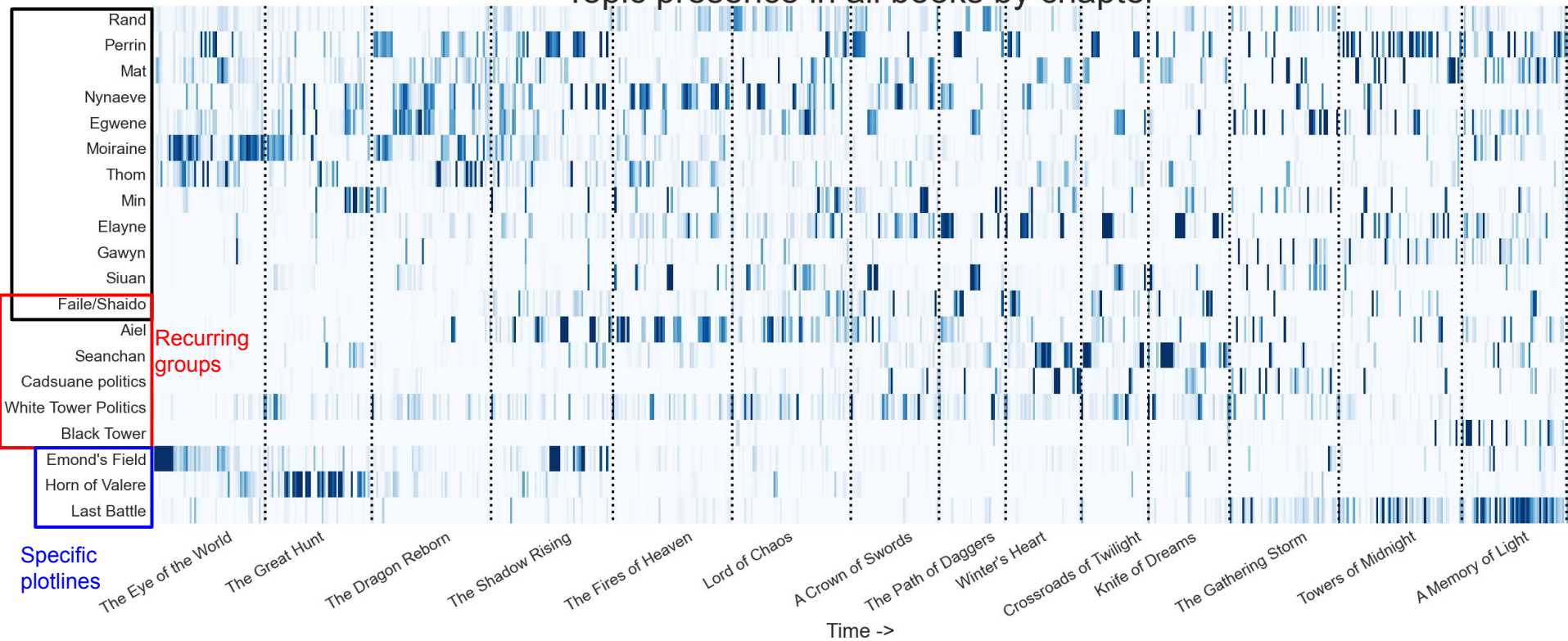
Specific plotlines



Topics over time

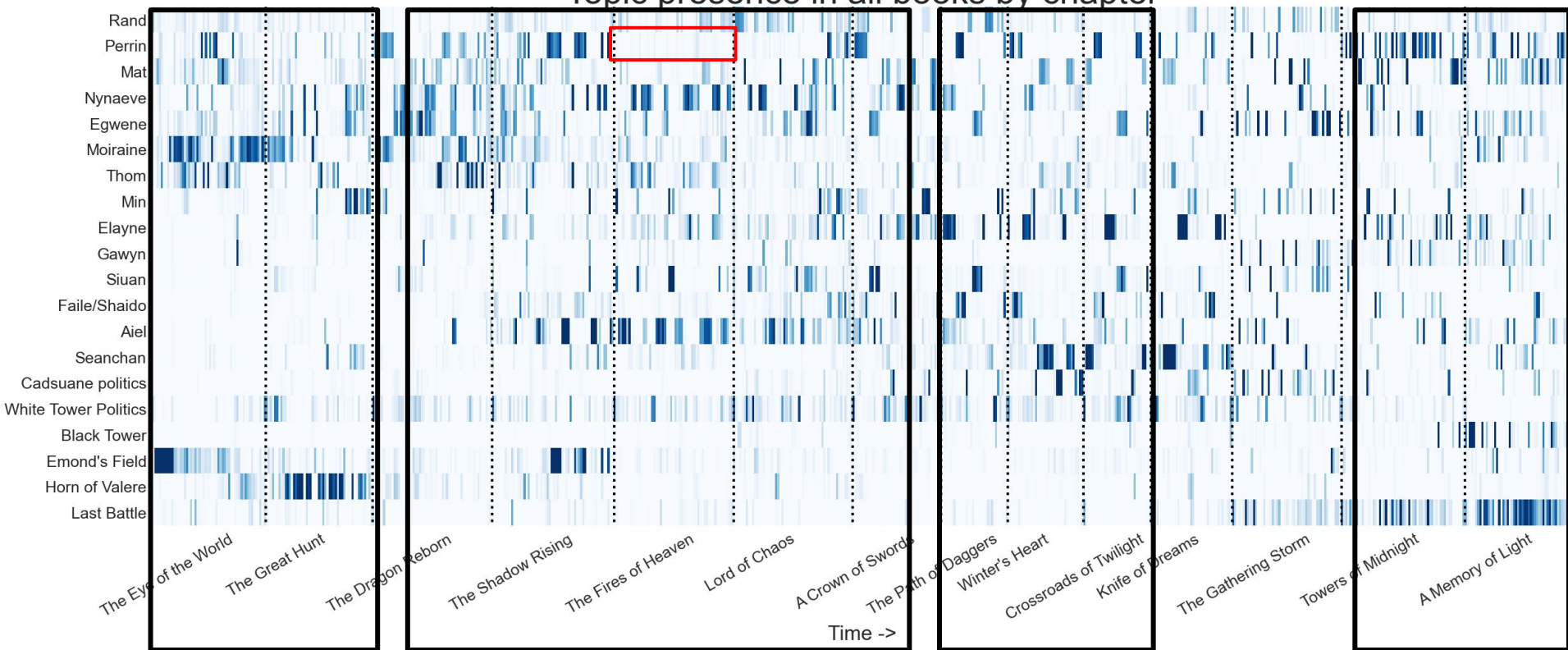
Topic presence in all books by chapter

Main
characters



Topics over time

Topic presence in all books by chapter



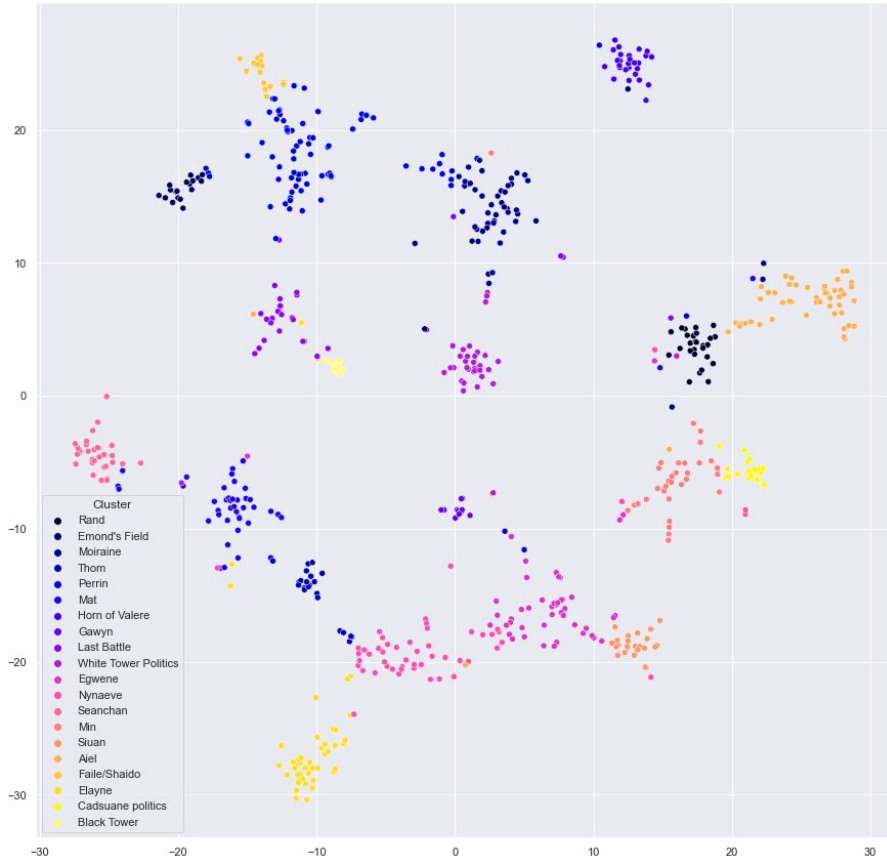
Characters
together

Characters
separated

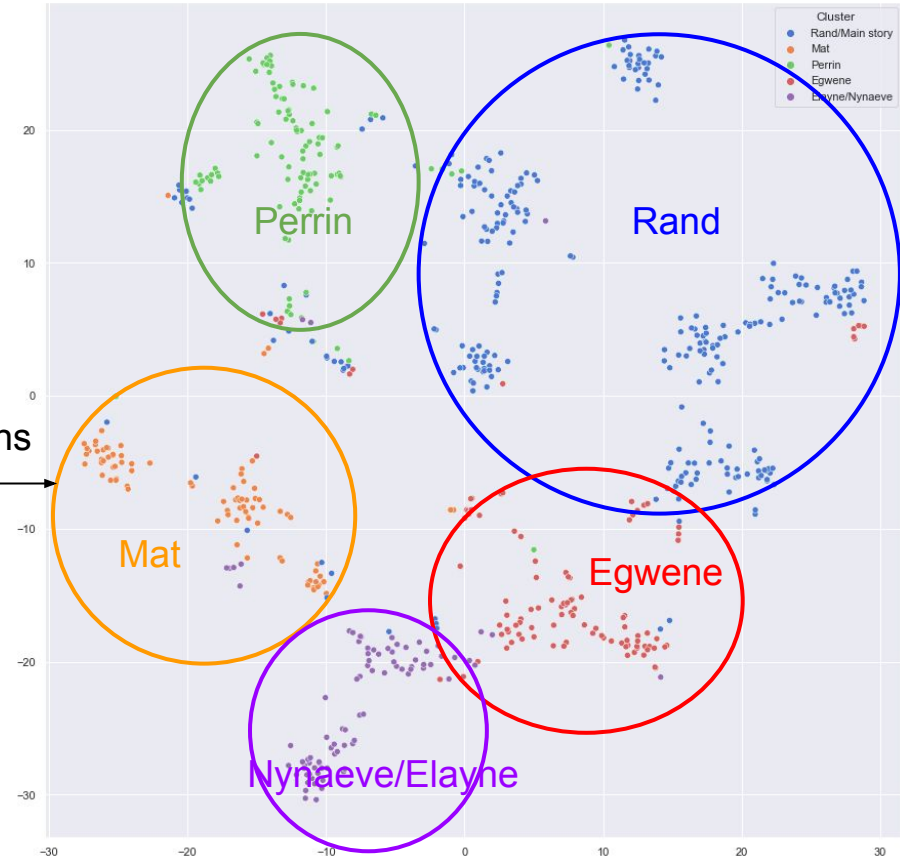
"The Slog"

Characters
back together

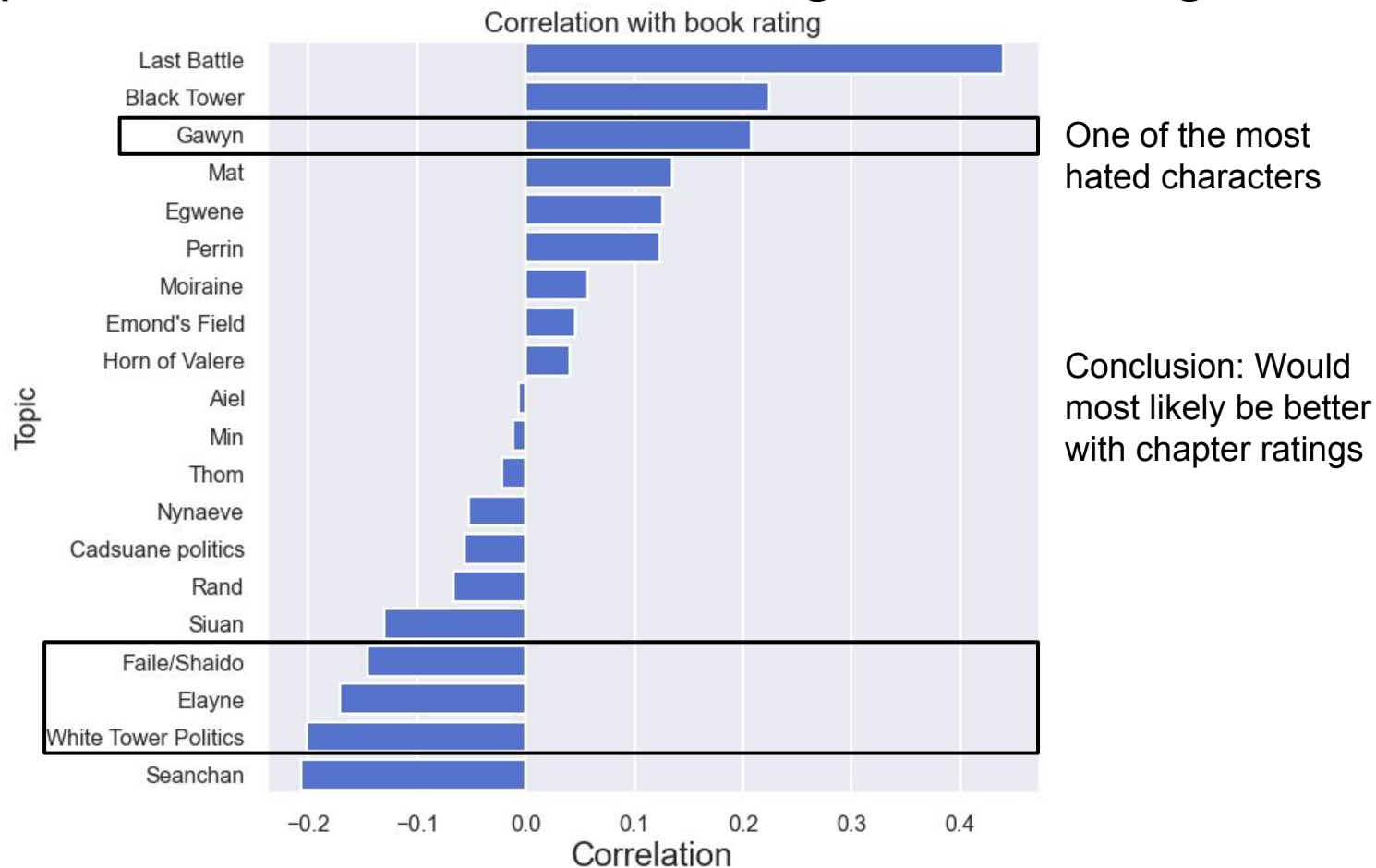
Clustering



KMeans



Topic correlation with book rating: a mixed bag



Conclusions

Topic modeling and clustering seem to focus largely on characters, not plot

Plot-focused topics could be an indirect measure of character concentration

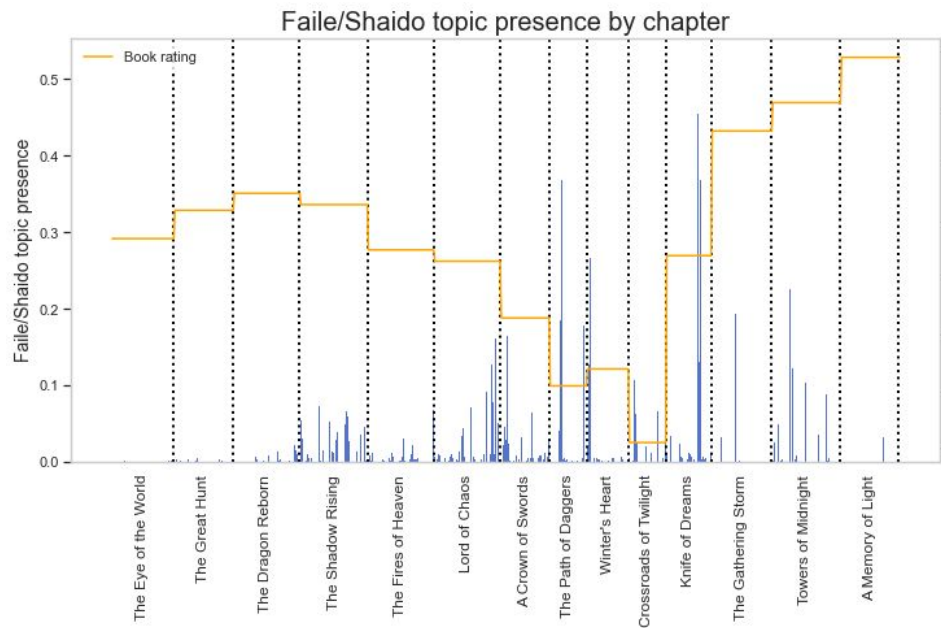
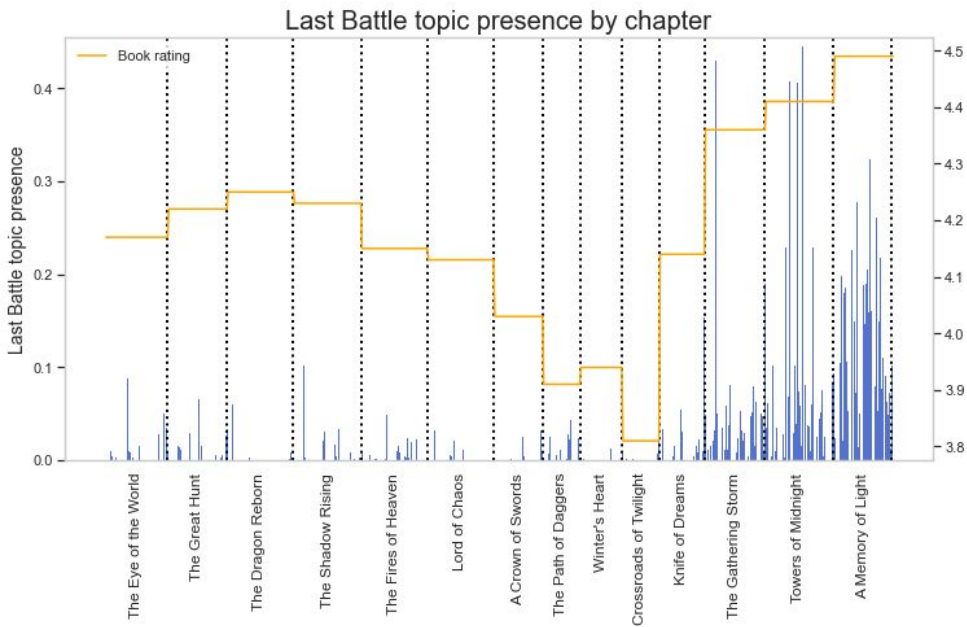
Models can help keep track of how plotlines evolve over time

If anyone from the TV show sees this please drop the Faile kidnapping subplot

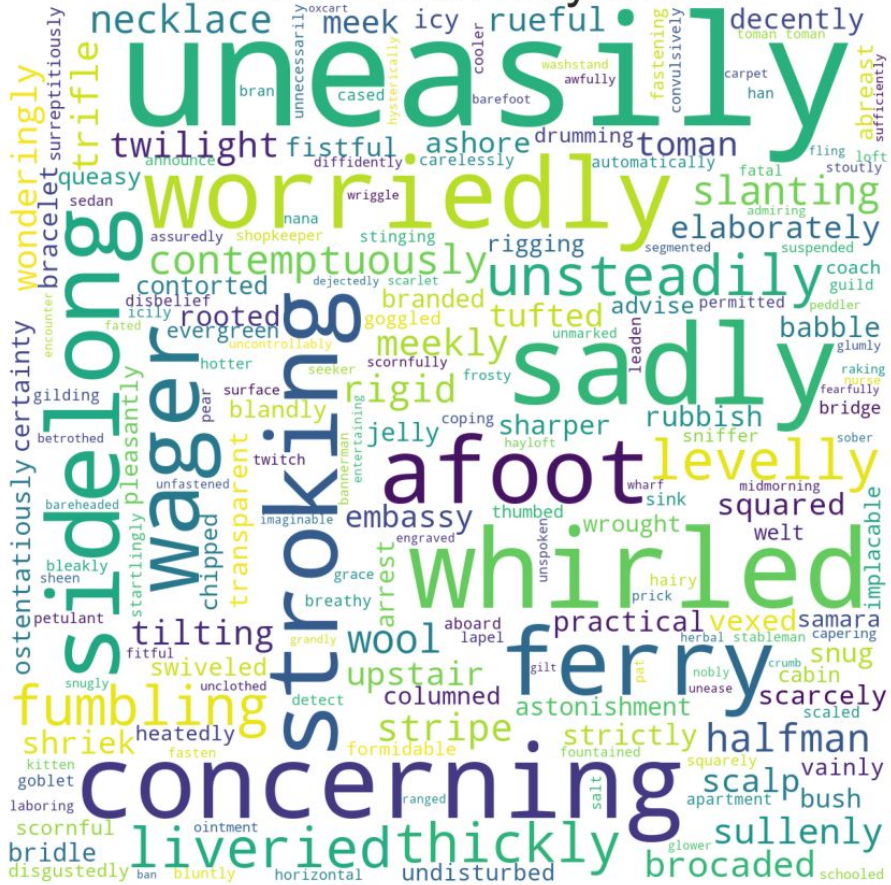
Questions?



Correlations



Robert Jordan only words

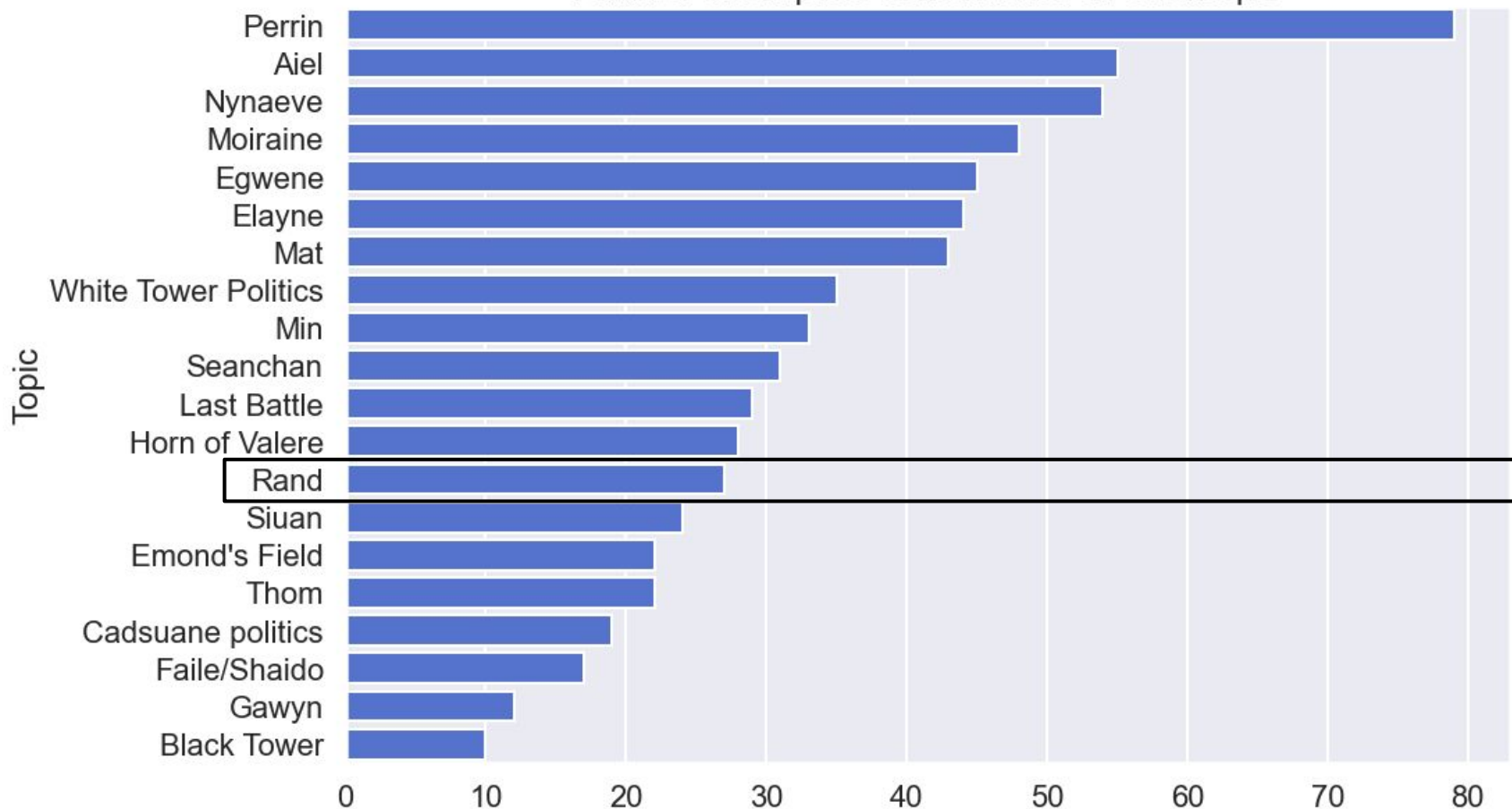


Brandon Sanderson only words



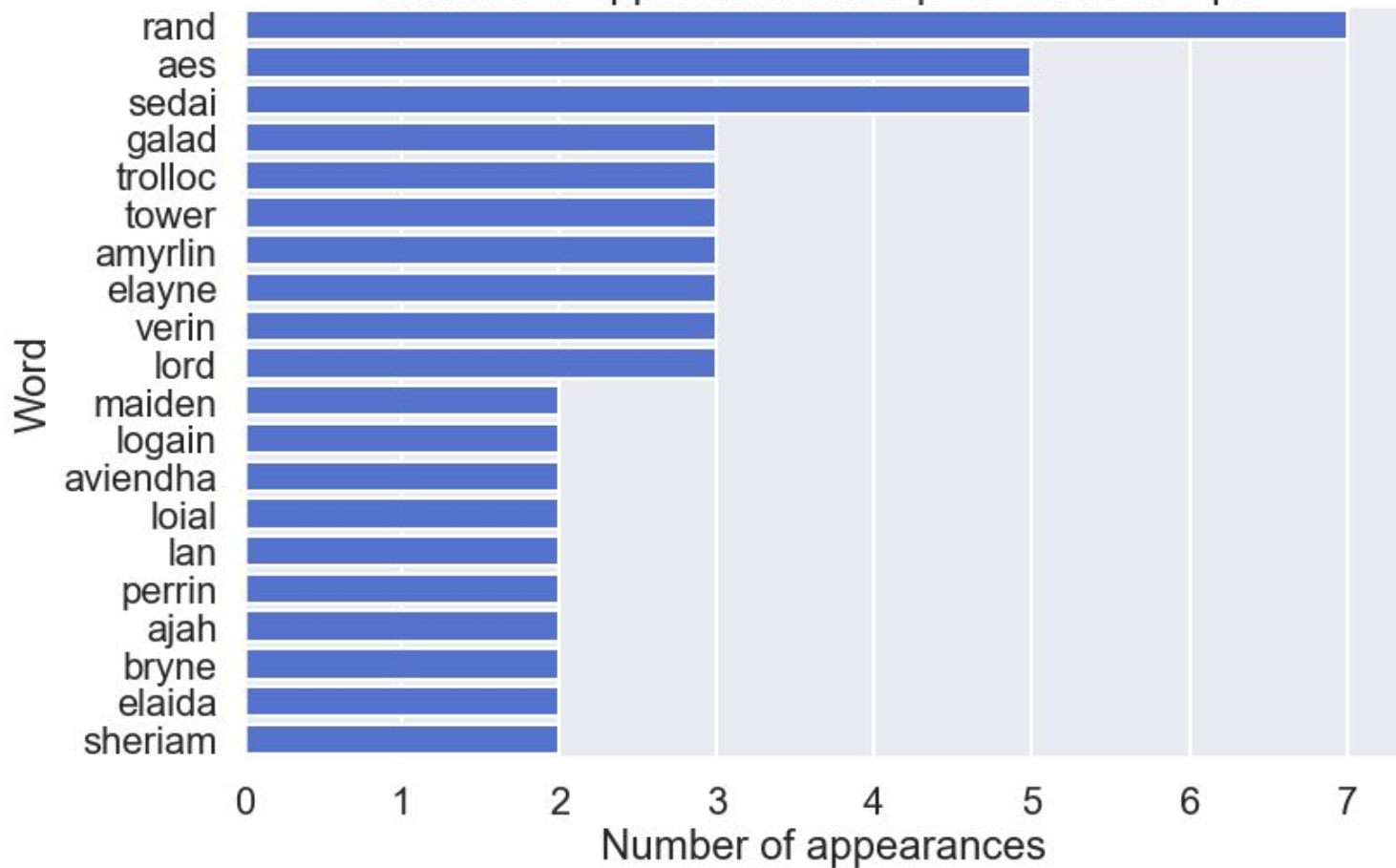
Where's Rand?

Number of chapters concentrated on each topic



Everywhere!

Number of appearances in top 10 words of topic



Appendix: Thom + Moiraine makes no sense, part 1

```
model.wv.most_similar('thom', topn=25)
```

```
[('noal', 0.8178343772888184),  
 ('olver', 0.7724289894104004),  
 ('gleeman', 0.7693802118301392),  
 ('juilin', 0.7451224327087402),  
 ('thom_merrilin', 0.741077184677124),  
 ('mat', 0.7315195202827454),  
 ('thorn', 0.7213478088378906),  
 ('beslan', 0.6846601963043213),  
 ('domon', 0.6750953197479248),  
 ('nalesean', 0.6696338057518005),  
 ('talmanes', 0.6605777740478516),  
 ('innkeeper', 0.6570944786071777),  
 ('mat_muttered', 0.6457614898681641),  
 ('mistres_anan', 0.6331594586372375),  
 ('master_alvere', 0.629438042640686),  
 ('dice', 0.6250801682472229),  
 ('thom_juulin', 0.6138516664505005),  
 ('mayor', 0.6136149764060974),  
 ('bran', 0.6135543584823608),  
 ('master_gill', 0.6124318838119507),  
 ('gill', 0.608081579208374),  
 ('harnan', 0.5987627506256104),  
 ('cenn', 0.5884811878204346),  
 ('edorion', 0.5851737260818481),  
 ('coin', 0.5849282145500183)]
```

```
model.wv.most_similar('moiraine', topn=25)
```

```
[('verin', 0.6650002598762512),  
 ('alanna', 0.618614673614502),  
 ('lan', 0.605637788772583),  
 ('thirteen_aes', 0.5778695344924927),  
 ('male_aes', 0.5731239318847656),  
 ('cadsuane', 0.5618353486061096),  
 ('wheel_will', 0.5069185495376587),  
 ('merana', 0.48766764998435974),  
 ('rand', 0.48694154620170593),  
 ('selene', 0.4797132611274719),  
 ('wheel_weaf', 0.4766269326210022),  
 ('myrelle', 0.4598006308078766),  
 ('warder', 0.4511159360408783),  
 ('anaiya', 0.4499765634536743),  
 ('nothing_else', 0.4431731700897217),  
 ('liandrin', 0.43451744318008423),  
 ('gitara', 0.4337482750415802),  
 ('sedai', 0.4268982410430908),  
 ('zarine', 0.4266795516014099),  
 ('merise', 0.41734856367111206),  
 ('nisao', 0.4159044921398163),  
 ('agelmar', 0.4157572388648987),  
 ('shalon', 0.41263043880462646),  
 ('bera', 0.40897294878959656),  
 ('wonderingly', 0.4070909023284912)]
```

Appendix: Thom + Moiraine makes no sense, part 2

```
analogy(model, 'rand', 'min', 'thom')
```

```
[('juilin', 0.6498128175735474),  
 ('thom_juilin', 0.6186529994010925),  
 ('thom_merrilin', 0.5940799713134766),  
 ('noal', 0.5788863897323608),  
 ('olver', 0.5725241899490356),  
 ('mistres_anan', 0.5705658197402954),  
 ('nynaeve', 0.5658490657806396),  
 ('innkeeper', 0.5637383460998535),  
 ('egeanin', 0.5604223012924194),  
 ('domon', 0.5589067935943604)]
```

```
analogy(model, 'rand', 'min', 'domon')
```

```
[('egeanin', 0.7375583648681641),  
 ('juilin', 0.6764757633209229),  
 ('thom_juilin', 0.6707871556282043),  
 ('lara', 0.6346412897109985),  
 ('mistres_anan', 0.6232042908668518),  
 ('areina', 0.6032098531723022),  
 ('leilwin', 0.598152220249176),  
 ('melfane', 0.5954345464706421),  
 ('rendra', 0.5896434783935547),  
 ('sullenly', 0.579151451587677)]
```

Appendix: Thom + Moiraine makes no sense, part 3

