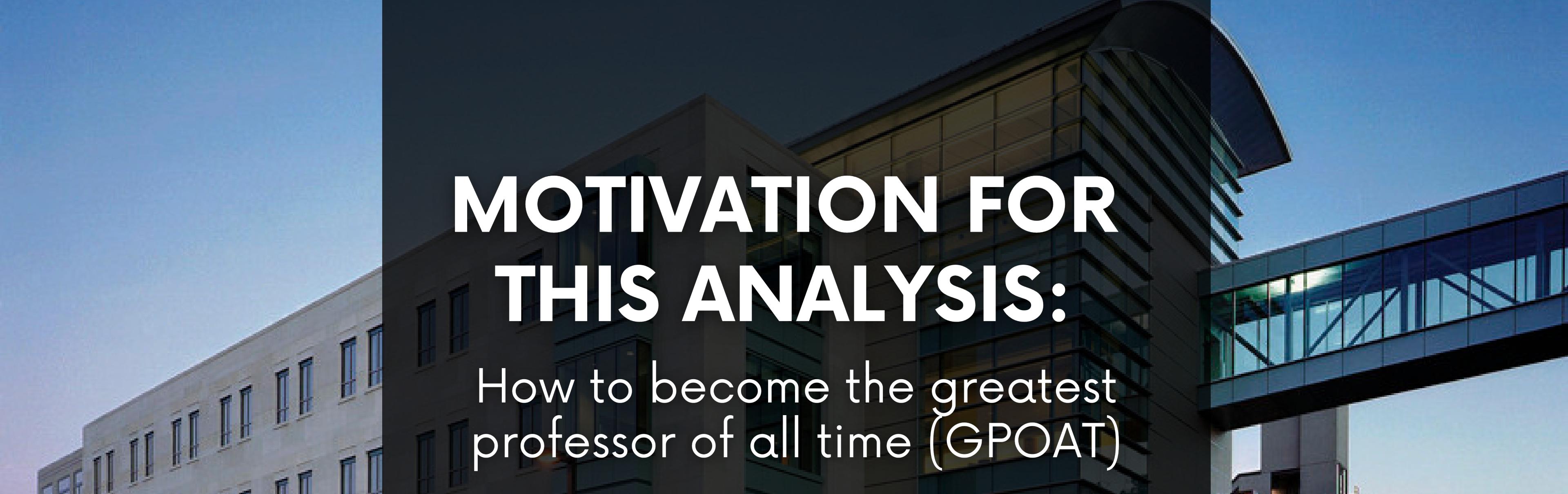


# BEYOND THE SYLLABUS

*Exploring Purdue Professors' Ratings via  
Web Scraping, Sentiment Analysis, & Topic Modeling*



# MOTIVATION FOR THIS ANALYSIS:

How to become the greatest  
professor of all time (GPOAT)

## Learning from the Best

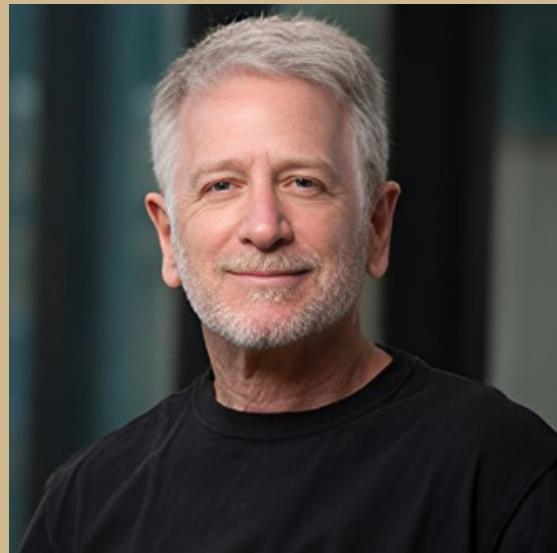
Having learned from some world-class professors, I aim to get a better understanding of how my past professors are perceived by their students

## Separating the Good from the Bad

Through this analysis, I want to learn what factors play into a professor receiving high/low ratings, specifically through topic modeling

# THE PROFESSORS

The heart, soul, and brains of Purdue University, this selection of professors made the biggest impact on my time as an undergraduate.



**Andrew Freed**  
Earth Science



**Chad Allred**  
Marketing



**Olga Senicheva**  
Operations



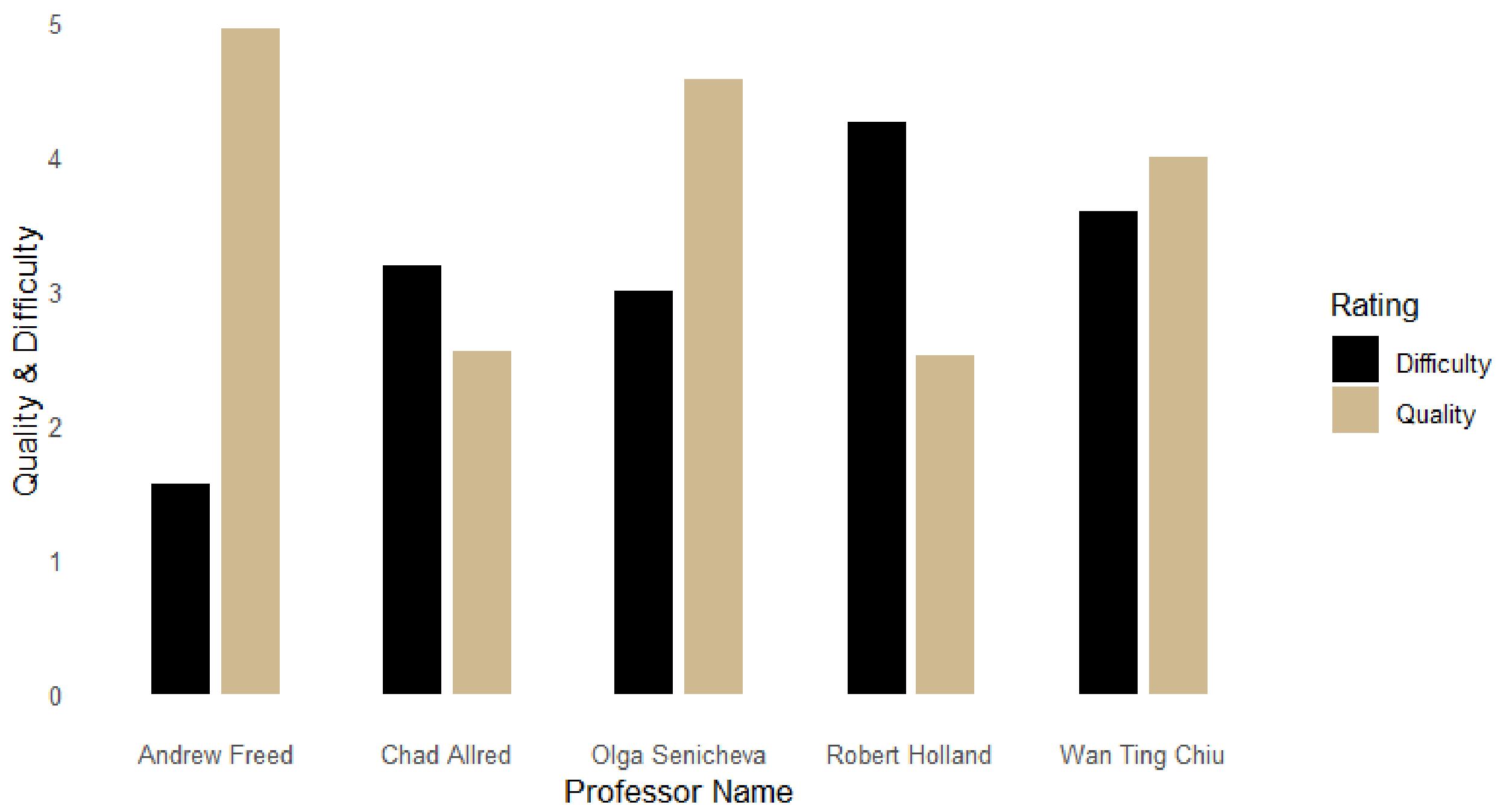
**Robert Holland**  
Economics



**Wan Ting Chiu**  
Strategic Management

# VARYING PERCEPTIONS

My selection of professors needed to be diverse in both quality & course difficulty, and these 5 are quite evidently spread across both scales.



# SENTIMENT ANALYSIS

Sentence-level sentiment analysis was executed to get a better understanding of how the professors rank amongst each other based on their online comments.

name <chr>	id <chr>	dept <chr>	avg_rating <chr>	total_ratings <chr>	sentiment <dbl>	rank <dbl>
Andrew Freed	1887440	Earth Science	5	179	0.4074858584	2
Chad Allred	2369546	Marketing	2.9	11	-0.0006715152	5
Olga Senicheva	2384348	Management	4.8	14	0.4416319608	1
Robert Holland	799230	Economics	2.5	103	0.0326645767	4
Wan Ting Chiu	2560231	Management	4.3	12	0.2861563934	3



# TOPIC MODELING

## The Duality of College Professors



**Andrew Freed**  
**Earth Science**

**VS**

Name <chr>	sentiment <dbl>
freed	0.5483871
holland	-0.3548387



**Robert Holland**  
**Economics**

# TOPIC MODELING

## The Duality of College Professors



```
[1] "amaze"  
[6] "disaster"  
[11] "fair"  
[16] "free"  
[21] "incredible"  
[26] "stress"  
[31] "tricky"  
[41] "boost"  
[46] "enjoy"  
[51] "fall"  
[56] "freed"  
[61] "knowledgeable"  
[66] "struggle"  
[71] "break"  
[76] "enjoyable"  
[81] "fantastic"  
[86] "gem"  
[91] "passion"  
[96] "succeed"  
[101] "cool"  
[106] "enthusiastic"  
[111] "fascinate"  
[116] "hilarious"  
[121] "respect"  
[126] "success"  
[131] "difficulty"  
[136] "excite"  
[141] "favorite"  
[146] "hot"  
[151] "straightforward"  
[156] "thoughtful"
```

- Known for:
  - Engaging lectures
  - Making STEM subjects more accessible to non-STEM majors
  - Interacting with students outside of class
  - Answering student questions 24/7

**Andrew Freed**  
**Earth Science**

# TOPIC MODELING

## The Duality of College Professors

```
[1] "awful"      "bore"       "cold"        "condescend"  "difficult"   "dull"        "fail"  
[8] "fine"       "genuine"    "glad"        "hell"        "horrible"    "important"   "impossible"  
[15] "lackluster" "luck"       "negativity"  "outstanding" "poorly"     "ready"       "refuse"  
[22] "ridiculous" "rude"      "smart"       "terrible"    "tough"      "unnecessary" "useless"  
[29] "worth"      "worthless" "wrong"
```

- Known for:
  - Ridiculously hard exams
  - Deadpan expression
  - Kicking people out of lectures
  - Inaccessibility outside of classroom



Robert Holland  
Economics

# FINAL CONSIDERATIONS

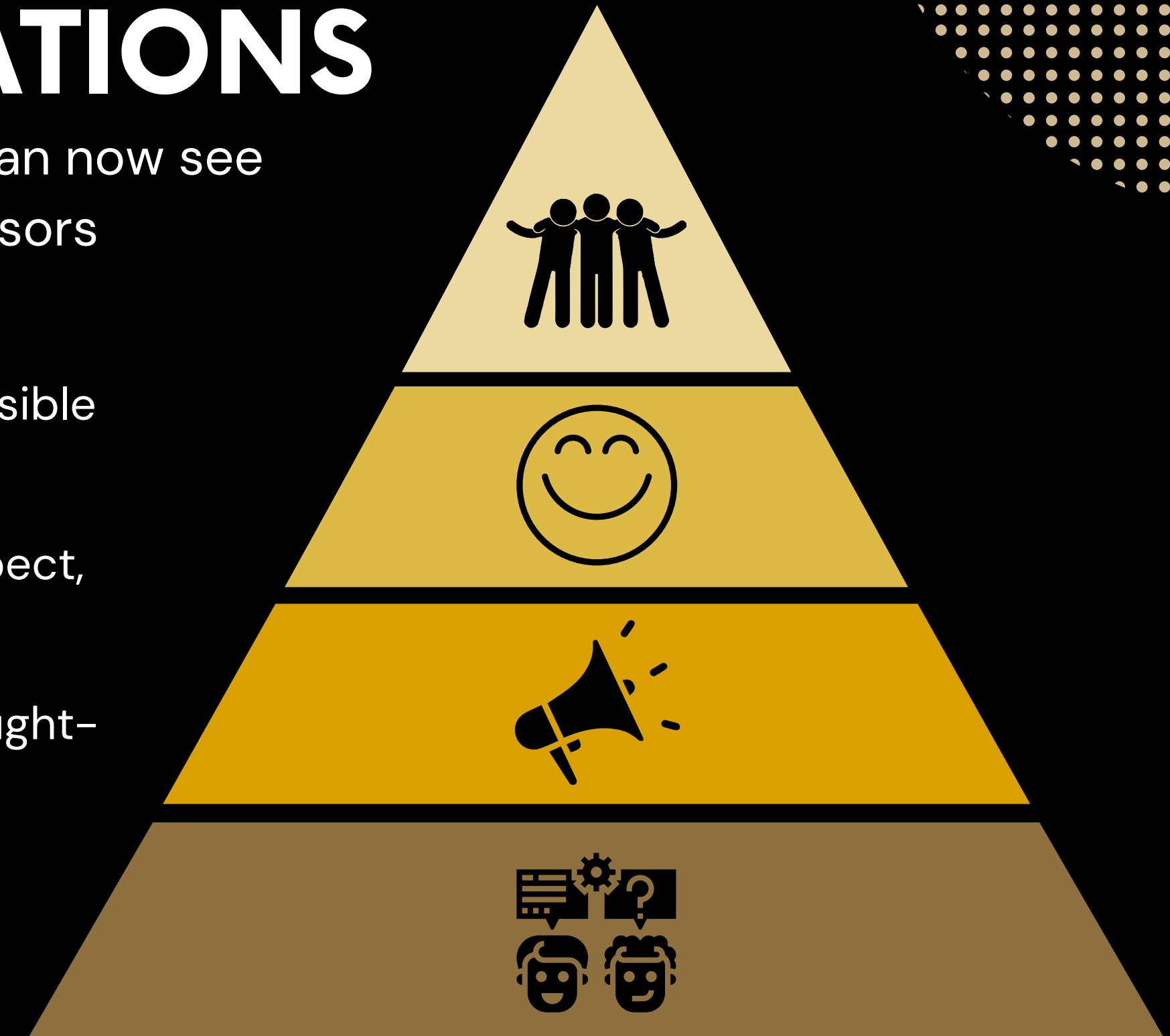
With my topic modeling out of the way, I can now see what Purdue students value in their professors

**04** Engage with students wherever possible outside of the classroom

**03** Put on a happy face and exude respect, joy, and interest in students

**02** Lectures should be interactive, thought-provoking, and insightful

**01** Considerable knowledgeable in the subject matter is a non-negotiable



The Road to Teaching  
Starts Now

