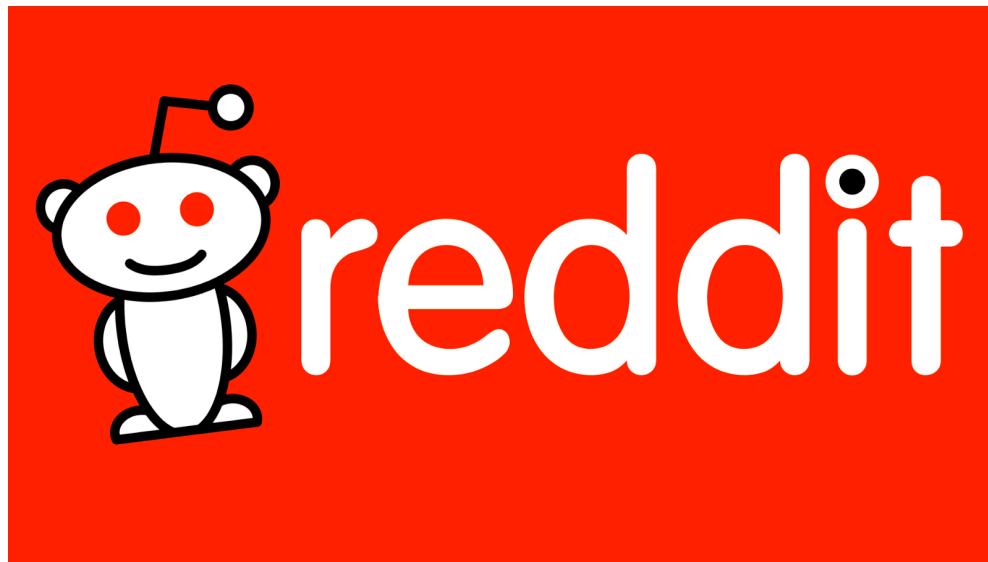


Participatory Logics in Digital Meme Culture: A Case Study of Reddit Dankmemes Sub-community

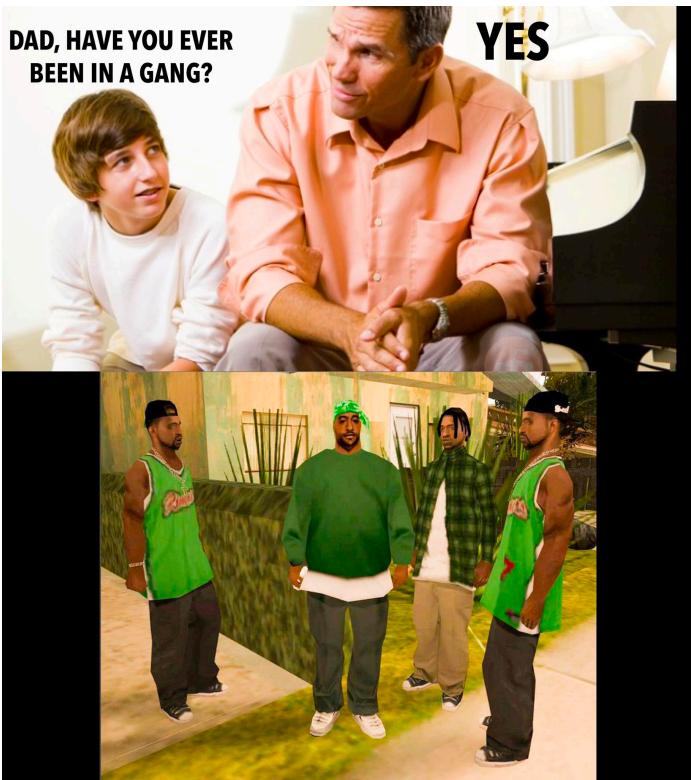


By Weiwei Zheng

Supervised by John Levi Martin

Literature Review & Motivation

- Reddit r/dankmemes



↑ Alpha_Demon2002 1.4k points · 9 hours ago
↓ Duck genesis Evangelion.
Reply Give Award Share Report Save

↑ dctxr OC Memer 485 points · 8 hours ago
↓ Duck life 5
Reply Give Award Share Report Save

↑ Eineg_Htims_Lliv WTF 240 points · 7 hours ago
↓ Duck life 3 gang rise up
Reply Give Award Share Report Save

↑ GalaxyMettaton 91 points · 5 hours ago
↓ i hated grinding in that game
Reply Give Award Share Report Save

↑ Sriracha-Lord 31 points · 3 hours ago
↓ Coolmathgames intensifies
Reply Give Award Share Report Save

1 more reply

↑ Ryan----- 52 points · 4 hours ago
↓ Anyone here from coolmathgames
Reply Give Award Share Report Save

↑ C-h-r-i-s-p-y-y-y-y 24 points · 4 hours ago
↓ Was duck life 5 the dungeon runner one
Reply Give Award Share Report Save

Research Questions:

1. How is the language usage/topicality of memes related to their image patterns?
2. How are the textual and visual features of memes related to the discussion patterns in the comment?
3. What is a possible predictive model on the popularity of memes in this subreddit?

Hypotheses

1. Abstract vs Realistic memes – Insulting/Sarcasm vs Plain languages
2. Realistic + Insulting memes – deeper graph; back and forth
3. Textual and visual of memes are useful features for clustering – from cluster to popularity
 - topicality, sentiment, usage of sarcasm +
 - colorfulness, entropy , (?categories)

$$\text{Entropy} = H = -\sum p_i \ln(p_i)$$

Data

1) Web-scraping – Pushshift + Praw
70 thousand posts – 2017.1 – 2019. 2

2) Feature extraction –
Text – Google Cloud Vision API
– Topic modeling – Gensim API
Image – Google Cloud Vision API / PIL - Image
Discussion pattern – NetworkX

Method

- Pearson correlation
- Logistic regression – Inference
- Lasso & Ridge regression – Prediction

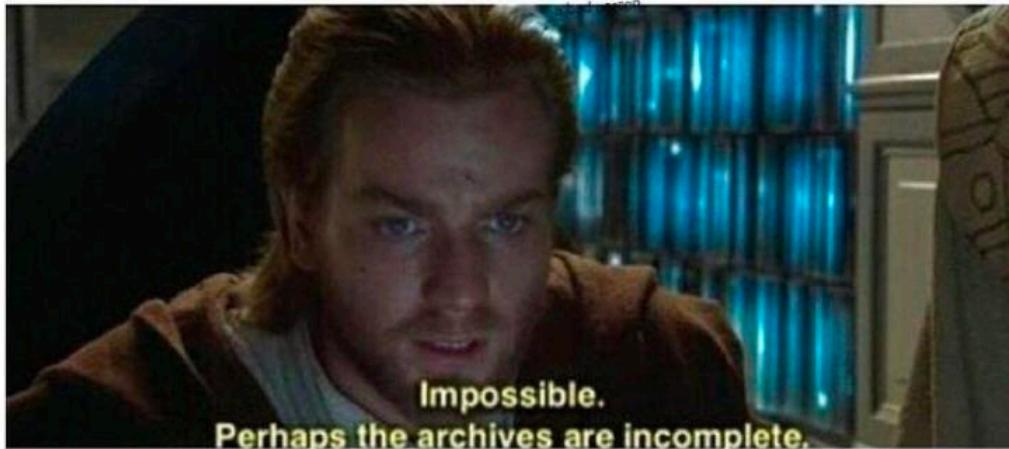
Result I

- everywhere is insult...
- discriminative & insulting wording – realistic memes

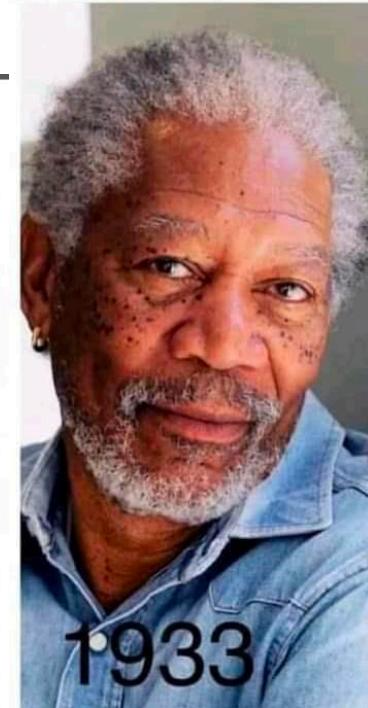
Script *contains N-word
White actors



When a mod doesn't have
gay porn in his search history



this nigga been old his whole life .



Result II

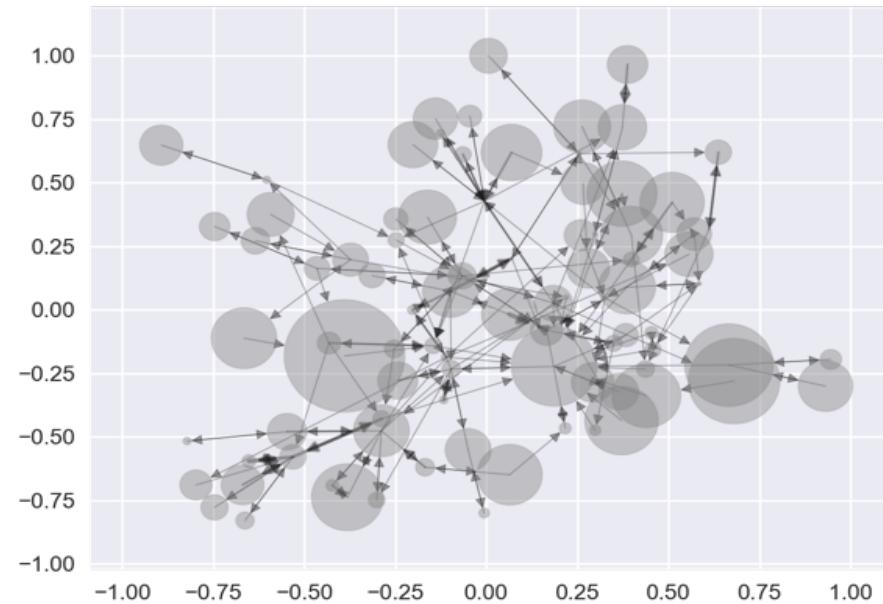
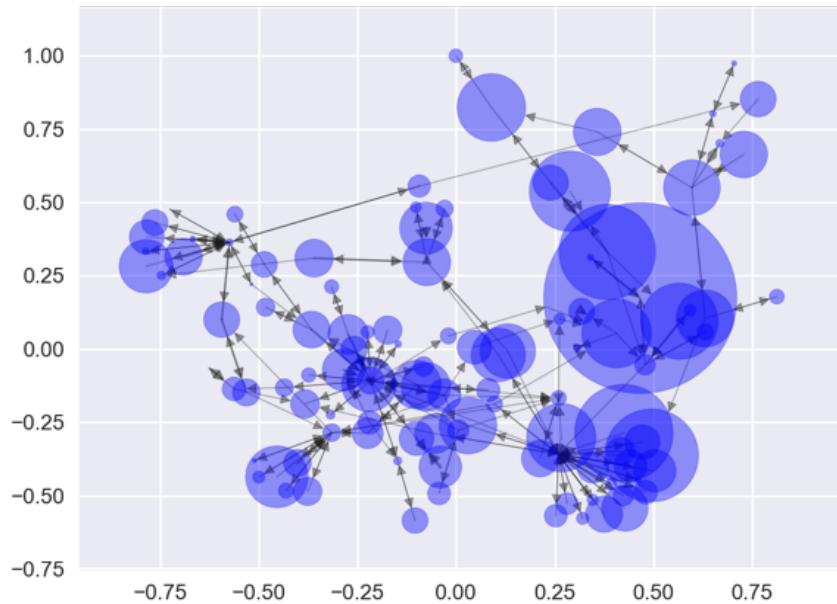
| topic 6 | topic 16 | topic 21 |
|---------|-------------|-------------|
| free | make | remember |
| steal | mean | watch |
| sex | woman | take |
| library | body | learn |
| master | man | tv |
| man | water | state |
| teacher | child | fucking |
| want | fish | feel |
| eat | girl friend | girl friend |
| max | cat | japanese |

| | abstract | realistic | t-statistics | p-value |
|----------|----------|-----------|--------------|---------|
| topic 6 | 0.0166 | 0.034 | -3.448 | 0.000 |
| topic 16 | 0.027 | 0.042 | -2.1983 | 0.028 |
| topic 21 | 0.0029 | 0.033 | 2.3477 | 0.019 |

| variables | df | deviance | AIC | LRT | p-value |
|-------------------------|----|----------|--------|------|---------|
| full model | | 1559.8 | 1575.8 | | |
| link karma | 1 | 1563.2 | 1577.2 | 3.35 | 0.07 |
| comment karma | 1 | 1562.7 | 1576.7 | 2.92 | 0.09 |
| # nods | 1 | 1563.4 | 1577.4 | 3.62 | 0.06 |
| density | 1 | 1561.8 | 1575.8 | 2.02 | 0.15 |
| # weak components | 1 | 1563.7 | 1577.7 | 3.84 | 0.05 |
| #strong components | 1 | 1563.9 | 1577.9 | 4.09 | 0.04 |
| mean comment link karma | 1 | 1562.7 | 1576.2 | 2.90 | 0.09 |

| variables | estimate | std error | z value | p-value |
|-------------------------|-----------------------|-----------------------|---------|----------------------|
| (intercept) | 1.315 | 2.42 e ⁻¹ | 5.43 | 5.51 e ⁻⁸ |
| link karma | 1.528e ⁻⁷ | 9.173 e ⁻⁸ | 1.72 | 0.085 |
| comment karma | -1.727e ⁻⁶ | 9.879 e ⁻⁷ | -1.75 | 0.081 |
| # nodes | -8.02e ⁻³ | 4.218 e ⁻³ | -1.9 | 0.057 |
| density | 1.577 | 1.15 | 1.4 | 0.170 |
| # weak components | -3.66e ⁻³ | 0.184 | -2.0 | 0.047 |
| #strong components | 9.428e ⁻³ | 4.702 e ⁻³ | 2.0 | 0.045 |
| mean comment link karma | -5.426e ⁻⁶ | 3.115 e ⁻⁶ | -1.7 | 0.082 |

Result III



Next step

- Detecting sarcasm + Insult words – be more specific
- Build image classifiers with simple machine learning tools
 - KNN etc.
- Explore more possibilities from the comments structure

(If I could get a PhD?)



 r/Showerthoughts 9h
If you were born with your legs coming out first, for a moment, you wore your mom as a hat.
Mindblowing

▲ 3.8k ▾ 130 Share