



Exploring Hindu Nationalism Discourse on Reddit through Text Analysis



Advanced Data-Driven Storytelling
Ananya Pujary



Table of Contents

01

Introduction

02

Research Questions

03

Hypotheses

04

**Data and
Methodology**

05

Results

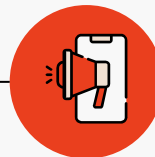
06

Conclusion

01 Introduction



Increasing Hindu
nationalism



Social media
extremism



Lack of Reddit-based
literature

Research Questions

- What are the dominant themes discussed in prominent Indian subreddits, and as related to the Hindutva ideology?
- What are the dominant sentiments of users on Indian subreddits, and as related to the Hindutva ideology?
- Do some Indian subreddits engage in more extreme discussions of the Hindutva ideology than others?



03 Hypotheses

- Some dominant themes that are discussed in Indian subreddits are related to fear of other religions, especially of Islam and Sikhism, and the promotion of Hindu nationalistic practices.
- The dominant sentiments in these Indian subreddits would be negative in relation to other religions and positive in relation to Hinduism.
- Larger Indian subreddits would display a more neutral sentiment overall in their posts than smaller subreddits.



04 Methodology



Data Cleaning

tokenization, corpus creation



Sentiment Analysis

to understand user
sentiments



Structural Topic Modeling

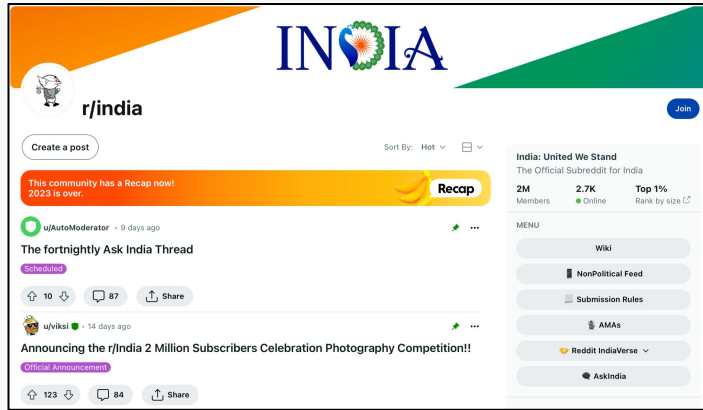
to gather overarching topics



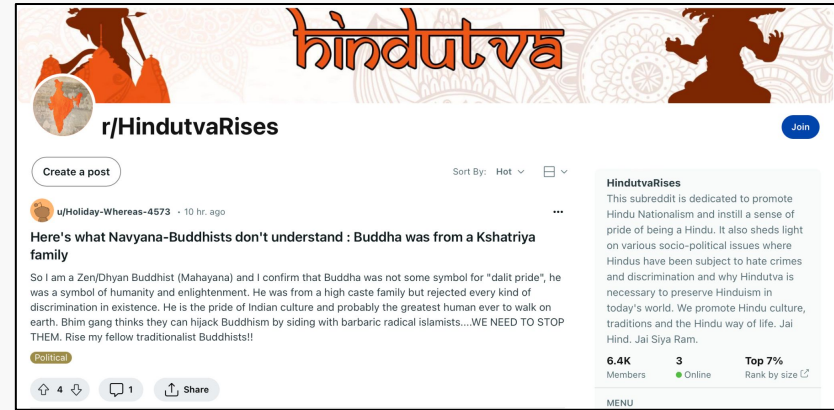
Output

An accessible flexdashboard
with results and insights for
the general public

04 Data



- 2M members
- 747 rows

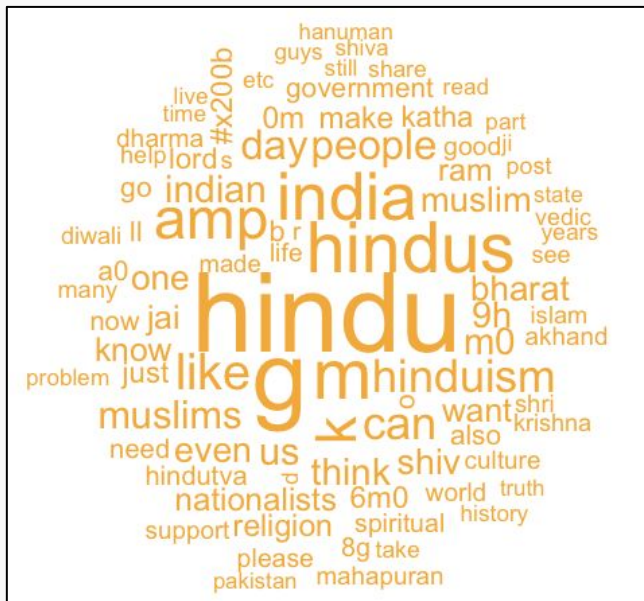


- 6.4K members
- 924 rows

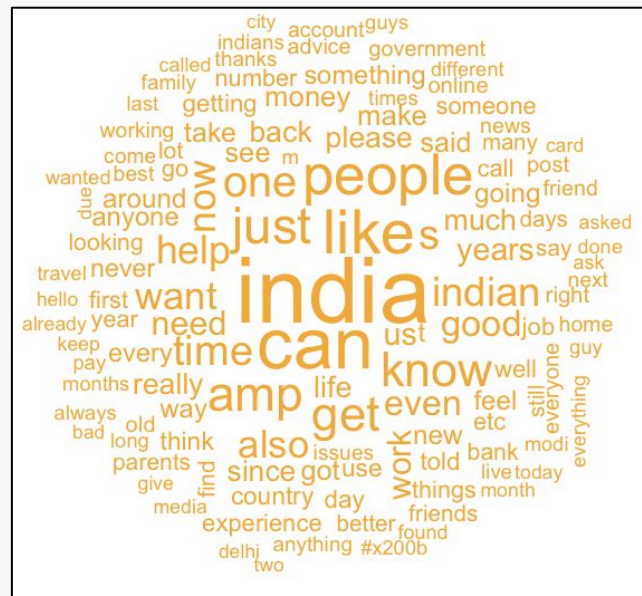
- Collected on December 8th, 2023 using RedditExtractoR
- Time period of 1 month, sorted by newest posts
- 8 columns (6 character, 2 numeric)
- Columns: *date published, title, text, title_text, timestamp, number of comments, subreddit name, url*

Data

Wordclouds



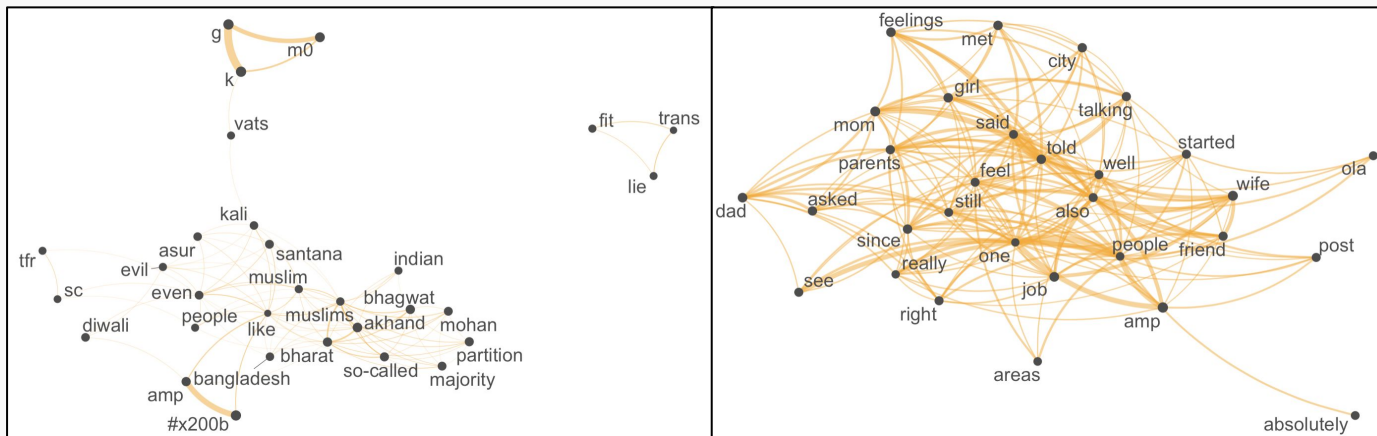
r/HindutvaRises



r/India

04 Data

Feature Co-occurrence Matrices

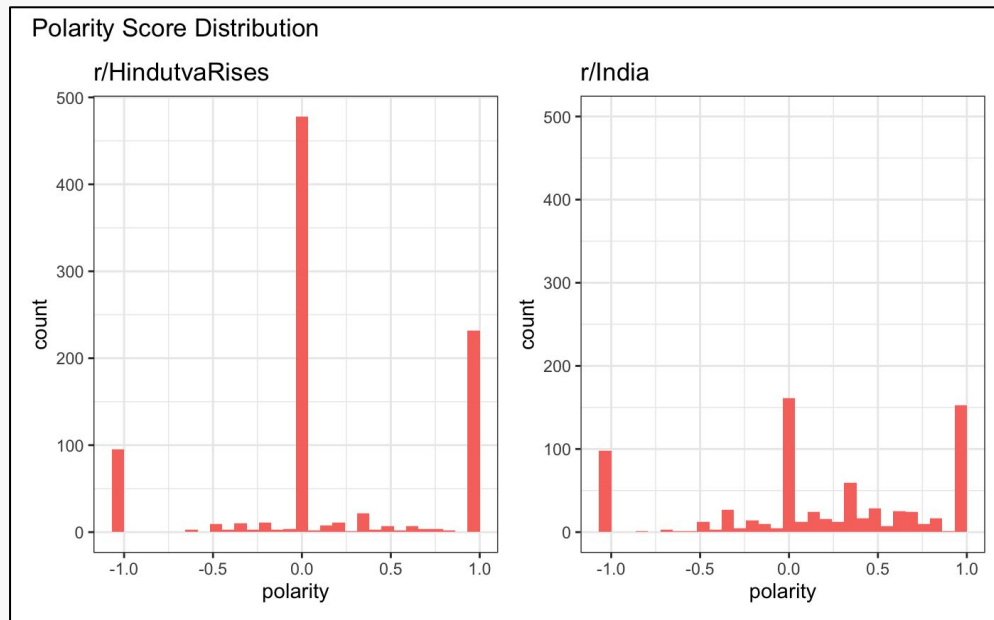


r/HindutvaRises

r/India

05 Results

Sentiment Analysis



r/HindutvaRises Top Topics (Polarity < 0)

Topic 1 Top Words:

Highest Prob: hindus, schools, hindu, like, can, minority, india
FREQ: schools, minority, private, rte, guru, pay, quota
Lift: _u, #bananapchat, #kashminhindus, 1700s, 1830s, 19th, 200s
Score: schools, private, rte, minority, quota, pay, hindus

Topic 2 Top Words:

Highest Prob: amp, people, m, hinduism, india, theory, g
FREQ: theory, g, n, ancient, k, aryan, dravidians
Lift: _jai, @Om, #art, #ayodhya, #bhakti, #hindu, #mahabharat
Score: theory, n, g, k, m, aryan, dravidians

Topic 3 Top Words:

Highest Prob: hindu, nationalists, moon, india, think, page, can
FREQ: moon, fought, communities, nepal, daksha, solah, somvar
Lift: _army, _during, _it, _war, _world, @bengalsultanafe,
00ee584352e692aifa390a400b02a8f804c1a3d

Topic 4 Top Words:

Highest Prob: nam, hindus, jai, muslims, bip, shree, mandir
FREQ: nam, bip, mandir, ban, remove, movies, shri
Lift: accused, akin, ambit, anger, assertive, attend, awareness
Score: nam, blasphem, bip, hindu, muslims, mandir, allies

r/HindutvaRises Top Topics (Polarity = 0)

Topic 1 Top Words:

Highest Prob: hindu, muslim, india, think, place, know, like
FREQ: n, support, secularism, bosc, chandra, growth, subhas
Lift: accounts, admired, bosc, chandra, democracy, growth, law
Score: growth, hindu, bosc, chandra, subhas, secularism, think

Topic 2 Top Words:

Highest Prob: g, m, k, m, 0, 9h, day, shiv
FREQ: g, m, k, m, 0, 9h, day, shiv
Lift: @5, @hindu, #shiv, 0g, 2@8, 2g, 2gd
Score: g, m, k, m, 0, 9h, shiv, 0m

Topic 3 Top Words:

Highest Prob: amp, hindu, india, hinduism, people, u, hindus
FREQ: amp, u, bollywood, lanka, s, sri, akhand
Lift: amp, arabia, battle, bol, chennakeshava, claiming, committed
Score: amp, u, people, lanka, sri, nationalists, bollywood

Topic 4 Top Words:

Highest Prob: like, even, dharma, santana, vedic, kali, hindus
FREQ: dharma, santana, kali, asun, well, become, evil
Lift: 25k, c00k, abrahamic, achieve, afghanistan, agnostic, allah
Score: santana, kali, asun, become, evil, karma, becoming

r/HindutvaRises Top Topics (Polarity > 0)

Topic 1 Top Words:

Highest Prob: hindu, amp, #x200b, hinduism, want, god, hindus
FREQ: #x200b, police, army, eating, beef, pride, reading
Lift: #x200b, 1940s, 25th, 295a, aasht, ability, abstain
Score: #x200b, army, police, terrorists, god, eating, rise

Topic 2 Top Words:

Highest Prob: hindu, india, muslims, hindus, akhand, bharat, trans
FREQ: trans, lie, so, agni, census, fit, so-called
Lift: abdul, agateya, al, ardhnarishwar, average, avatars, bahuchar
Score: trans, lie, so, fit, agni, census, rfr

Topic 3 Top Words:

Highest Prob: india, indian, hindus, u, hindu, can, calendar
FREQ: calendar, born, jai, abroad, government, hindi, break
Lift: 10-15, 13th, 2nd, 80k, *, aamin, abindianhindus
Score: calendar: government, jai, born, indian, success, retention

Topic 4 Top Words:

Highest Prob: diwali, lord, spiritual, mukesh, vats, part, m
FREQ: diwali, mukesh, vats, g, puja, evatan, online
Lift: @bucialyog, @office, _sarasid, @sammyyava, #hindu, #mahabharat, #mahabharata, #ramanavami
Score: diwali, mukesh, vats, g, psycho, part, decor

05 Results

Structural Topic Modeling

r/HindutvaRises r/India

r/India Top Topics (Polarity < 0)

Topic 1 Top Words:

Highest Prob: india, s, card, us, people, things, case
FREQ: livpure, congress, force, mp, bharat, cancel, research
Lift: 100rs, 1018l-crore, 180rs, 4-hour, 5th, academic, add
Score: livpure, cancel, 20th, nameswaram, card, add, deceptive

Topic 2 Top Words:

Highest Prob: india, like, just, news, caste, indian, people
FREQ: caste, class, sister, agoda, brahmin, gr, man
Lift: caste, @penpencildraw, 18m, 2019-21, 210m, 4k, 50-75ish
Score: brahmin, agoda, attention, pakistan, class, caste, number

Topic 3 Top Words:

Highest Prob: can, india, like, just, never, get, even
FREQ: hard, non, vegan, indians, veg, diet, image
Lift: hard, image, _d, #hand, 0570d5348c7cb93e4b7ef09c5da4c82df0704bea, 1-2, 10-12
Score: vegan, non, veg, hard, diet, die, try

Topic 4 Top Words:

Highest Prob: can, parents, back, one, call, t, dad
FREQ: m, asleep, clean, hal, dream, mum, prescribed
Lift: m, -, 12pm, 21yr, 20m, 29m, 90k
Score: asleep, clean, prescribed, dream, mum, m, coach

r/India Top Topics (Polarity = 0)

Topic 1 Top Words:

Highest Prob: amp, india, indian, report, m, s, like
FREQ: report, entry, amp, format, mobile, money, two
Lift: report, #x200b, 15k, 17m, 25k, 07a083a8f03a9108a5ealab4b1840ccca070022,
access

Topic 2 Top Words:

Highest Prob: india, order, since, times, inside, use, trapped
FREQ: order, inside, use, back, decathlon, delivered, rescued
Lift: bribes, buddha, business, currency, glovebox, songs, spray
Score: delhi, order, decathlon, delivered, glovebox, spray, tejas

Topic 3 Top Words:

Highest Prob: s, day, roads, people, data, just, new
FREQ: roads, data, every, many, took, avoid, go
Lift: _names, _star, #melodi, 12th, 14-jan-10c0, 1025-2023, 1st
Score: roads, many, data, name, avoid, took, says

Topic 4 Top Words:

Highest Prob: india, can, congress, news, s, state, old
FREQ: congress, news, state, coins, vigilance, book, city
Lift: 32728b02dc0b3d0488e70e24c5ab9566, 9k, accepting, accidents, adapter, bhopal, bold
Score: congress, vigilance, commission, noise, navel, saree, wearing

r/India Top Topics (Polarity > 0)

Topic 1 Top Words:

Highest Prob: amp, india, people, one, like, can, just
FREQ: ama, auto, lk, named, nani, webp, indigo
Lift: _a, _abhinandan, _abiji, _am, _thruv, _educator, _from
Score: ama, lk, nani, named, subsidies, cr, finals

Topic 2 Top Words:

Highest Prob: people, india, like, just, know, can, get
FREQ: passport, coins, u, problems, nice, ve, non
Lift: 1-2, 5th, activities, adopted, adoption, agra, aim
Score: coins, u, wife, feelings, room, godown, representation

Topic 3 Top Words:

Highest Prob: can, india, bank, online, help, get, account
FREQ: project, lakh, refund, zomato, gol, payments, seeking
Lift: achieve, agent, agreement, astronaut, baby, bare, born
Score: zomato, payments, lakh, gol, tu, academic, tashan

Topic 4 Top Words:

Highest Prob: please, india, help, like, can, university, know
FREQ: certificate, protein, therapy, tickets, broadcasting, songs, university
Lift: 13-place, baiyayee, bunny, censorship, clinic, didnt, dishwasher
Score: protein, broadcasting, university, flights, forensics, universities, pet



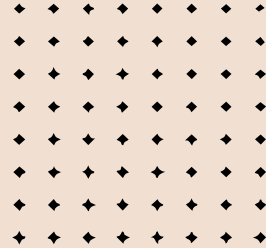
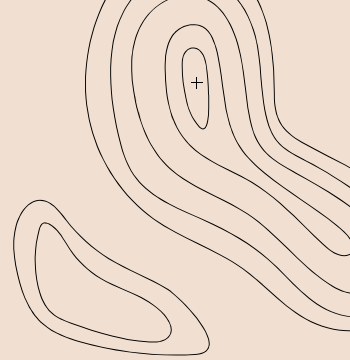
06 Conclusion

- Partial support to the hypotheses
- Smaller subreddit not as extreme as expected since most posts classified as neutral. Positively coded posts talk about Hindu rituals and extremist ideas, while negative ones discuss other religions.
- More general topics and positive polarity in the bigger subreddit
- Limitations
 - Cross-sectional data may not be very representative, not taken at a particularly relevant time period
 - Only two subreddits so not very generalizable
 - Tokenization not very effective
- Future directions
 - Compare more subreddits over a relevant time period (e.g. election season)
 - Experiment with more K-values to see how topics in STM change



Thanks!


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