



Auto Therapy

NLP for Mental Health

Faustina Maria Giaquinta

01

Introduction

The background features several overlapping organic shapes. A large, light orange shape is at the bottom left. A medium-sized, darker orange shape is in the center. A small, teal circle is positioned to the right of the center. A large, teal shape is on the far right, partially cut off by the edge of the frame.

A Picture Is
Worth a
Thousand
Words

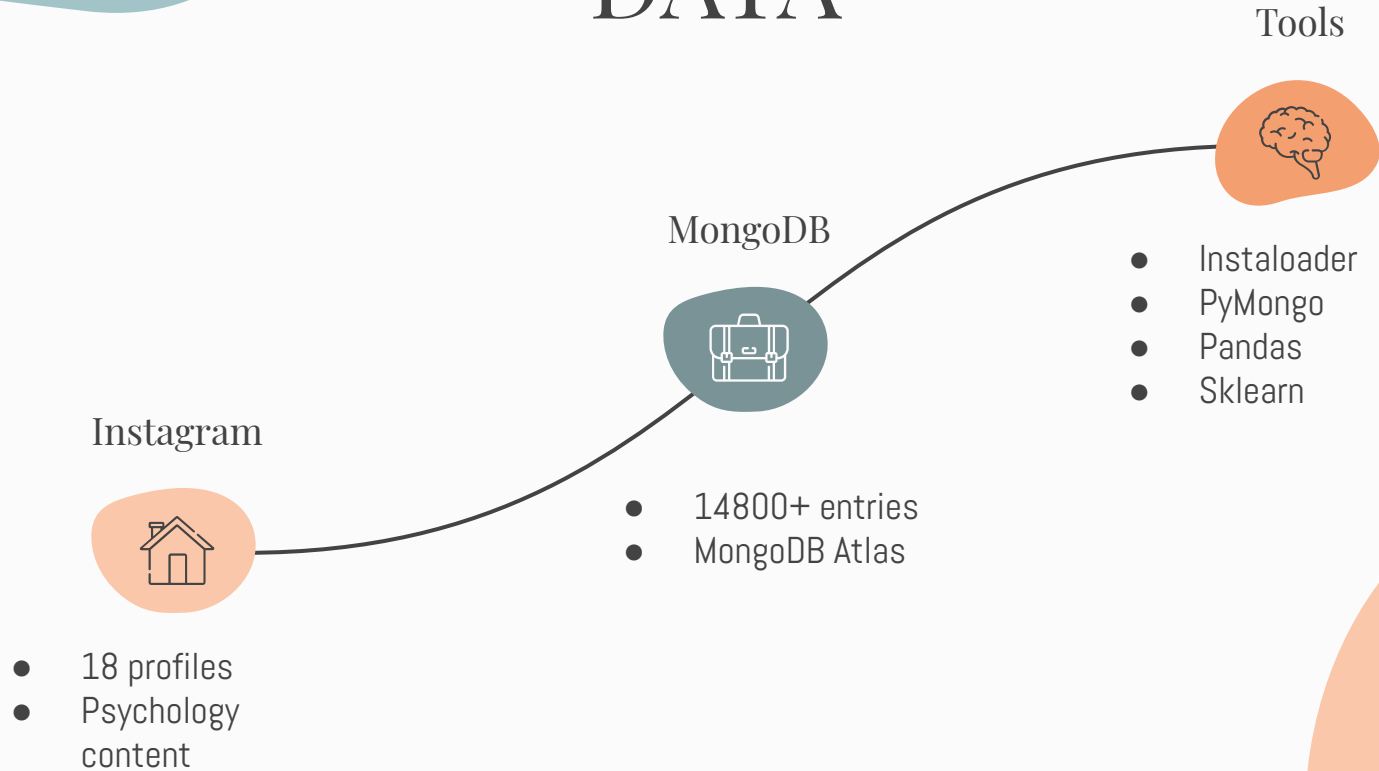


02

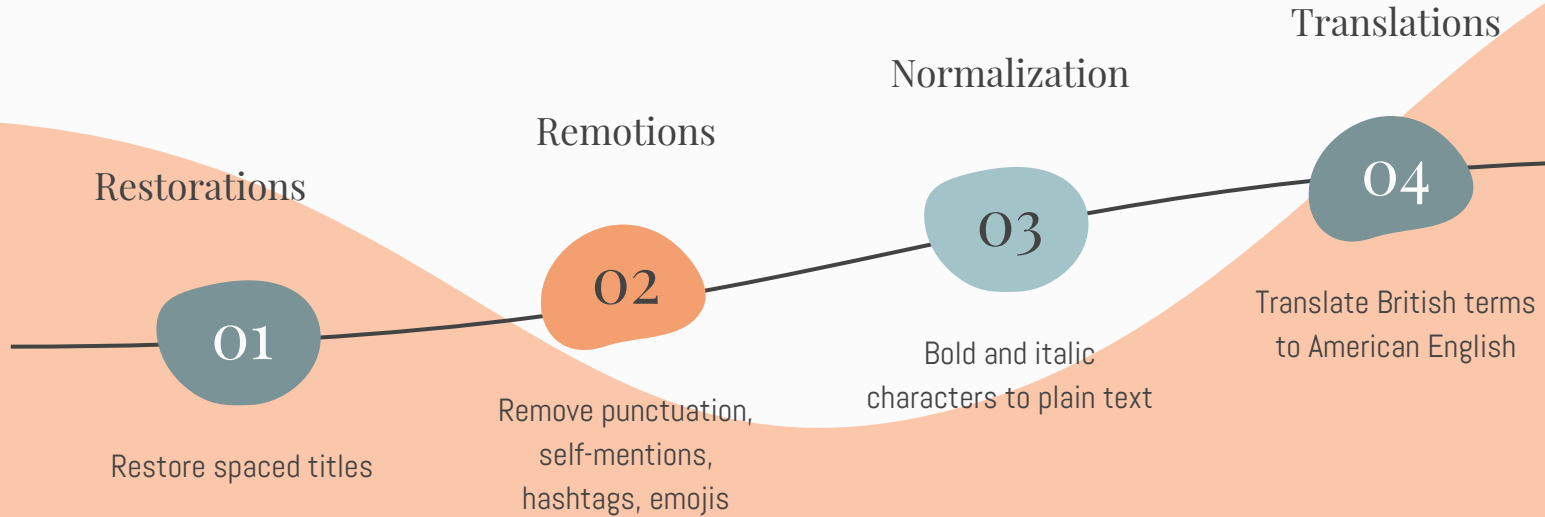
Methodology

Data Collection, Cleaning

DATA



Data Cleaning



Data Preprocessing

Lemmatization

05

Spacy

English, largest model

Stemming

06

NLTK

SnowballStemmer

'Casually' → 'casual'

Parameters

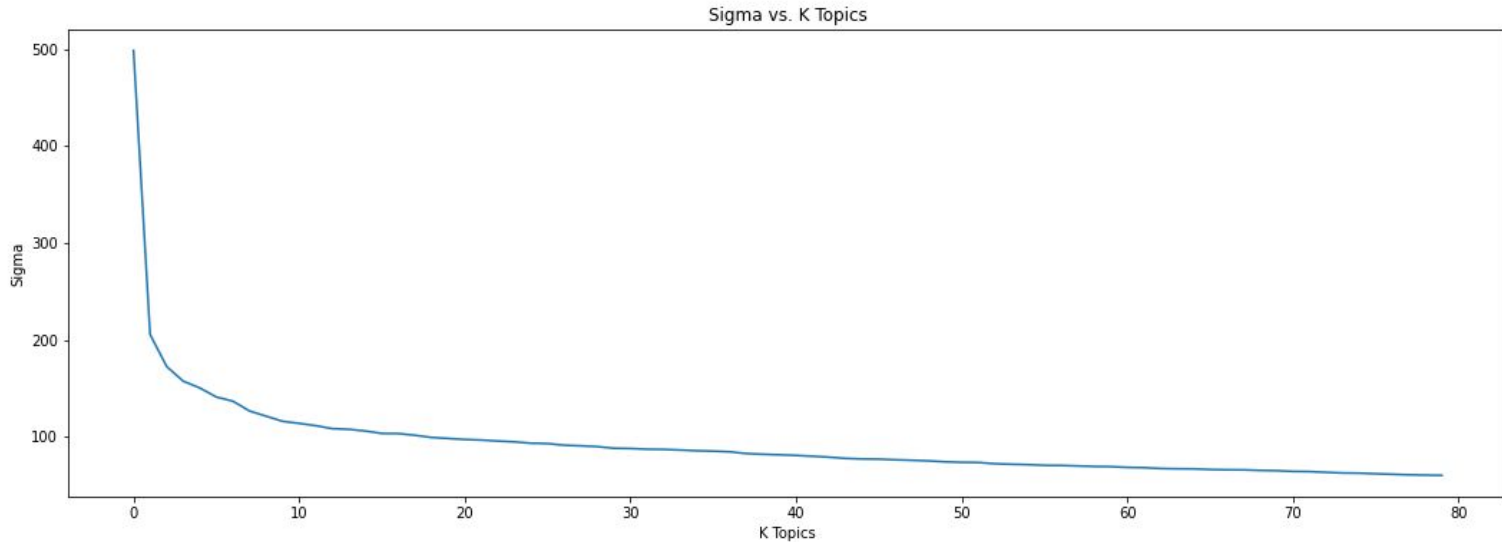
07

Unigrams

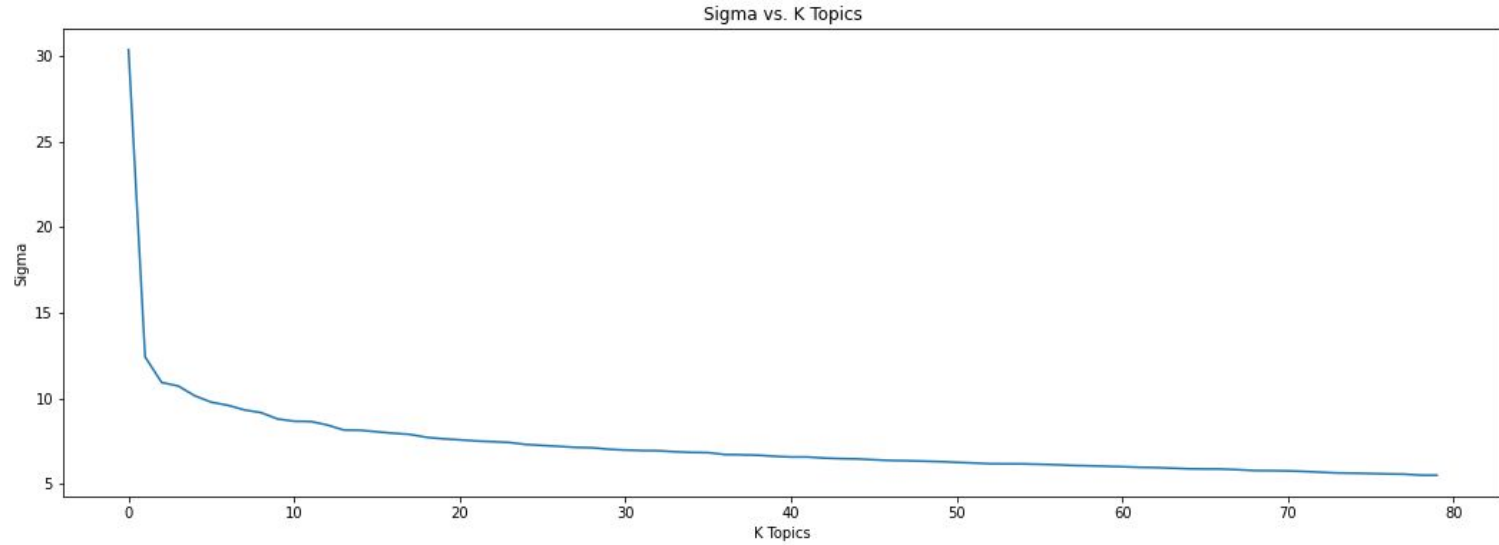
Words longer than 3 characters

Present in 1% of the documents

CountVectorizer



TF-IDF





10

Topics

912

Words




14800+

Instagram posts

18

Instagram accounts



TOPICS

Intimacy in Relationships

1921

Healing Journey

4325

Asking or Looking for Help

813

Healthy Relationships

1069

Inner-Work

1329

Trauma

810

Communication

772

Otherness

1387

Reparenting

1763

Actions

650



Test Case 1

"I wanted to take back my diagnosis and keep that can of worms closed shut. But repressing all that stuff made me physically ill. It made my brain stop working. And eventually I had a nervous breakdown so bad my consciousness left my brain and the world looked unreal."

— [lorazcyk, Reddit](#)

First Recommendation

"I don't know where to start"

Translation:

"I don't trust myself to follow through"



To restore trust, you must practice **keeping promises to yourself**

@the.holistic.psychologist



the.holistic.psychologis • Follow ...

-
You know where to start. We all do. We know the habits that lead to highest versions of ourselves. We know the daily rituals we want to have.

-
We just don't trust ourselves. We've let ourselves down countless times. Made commitments and haven't kept them. Betrayed ourselves. Just as you don't trust a partner who's betrayed trust, you don't trust yourself.

-
There's this idea that self worth and self esteem can be stated and we will change the narrative in our minds. "I am worthy" means nothing until you prove to yourself that you're worthy. "I love myself" means nothing until



2,287 likes

NOVEMBER 29, 2018

Log in to like or comment.

Second Recommendation

After me,
you come first.

- Unknown



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New York, New York

taking care of the self in order to live a vibrant and fulfilling life. We mentioned quotes like "you can't pour from an empty cup" or "you can't give to others what you haven't given to yourself." And then I shared a quote a client of mine once said in a session. He shared that an older gentleman once was giving him advice and said "after me, you come first." I was struck by this in session and have kept the quote written on a sticky note on a desk in my office ever since.

It's true, isn't it? That we must take care of ourselves (don't confuse this with selfishness) before we can ever fully show up for others. It's like the oxygen masks in airplanes. Put yours on first before you put on another's; you're of no use if you run out of



3,207 likes

AUGUST 9, 2017

Log in to like or comment.

Third Recommendation



The image shows an Instagram post by user seerutkchawla. The main content is a large text graphic on a light gray background that reads: what's your block to empathy?. The text is in a bold, black, sans-serif font. Below the text, the username @seerutkchawla is visible. To the right of the image is the Instagram interface, showing the user's profile picture, name, and a 'Follow' button. The post's caption contains three paragraphs of text discussing psychological blocks to empathy. At the bottom of the post, there are icons for likes, comments, shares, and a bookmark, along with the text '29 likes' and the date 'JUNE 17, 2019'. A note at the very bottom states 'Comments on this post have been limited.'

what's your block to
empathy?

@seerutkchawla

seerutkchawla • Follow

The things that trigger you, are often the things that block your empathy towards other people.

Similarly, we apply this block to ourselves. And this mechanism is so insidious, that we a) often aren't aware it's a block b) often aren't aware that this is an issue that requires addressing.

Often the critical external voice that you internalised as a child, becomes your block to empathy and self compassion to yourself. Tony Robbins asks a wonderful question: "Whose love did you CRAVE the most as a child?". "And who did you have to be for them, to receive that love?".

29 likes

JUNE 17, 2019

Comments on this post have been limited.

Test Case 2

"I've been talking to a new person that I really like and see myself being friends with and just connect with. I want him to know who I am so I'm trying to explain my past and what I went through, but I end up crying about it because it was a lot of bad negative stuff that really hurt me. Is this healthy to do? Like do I just need to forget the past or whatever? I know it's probably best to feel these things without any judgement right? It's just crazy I'm crying about something that happened few years ago, like I know it's not stupid but I just feel stupid about feeling the way I do which I'm trying to feel anymore. My friend went through family problems too so it makes me really understand what he went through, and idk why it's always the ones that dealt with family problems that I connect with the most. Is that normal?"

— [Novemberx123, Reddit](#)

First Recommendation

**“We either overcompensate for what we
didn’t get from our own parents or
blindly recreate the same situations.**

We call this the legacy of wounding.”

-Harville Hendrix



@lizlistens

Elizabeth Earnshaw, LMFT



lizlistens • [Follow](#)

Glenside



lizlistens The legacy of wounding -
oof. It's a big one. It's why
generationally we see the same
wounds being handed down over and
over again OR the phenomenon of
trying so hard to make it different
that we overcompensate and in
doing so create new wounds.

Harville Hendrix writes about the
legacy of wounding and how it
continues without self awareness.

Even when we think we are doing
things differently, we might still be
controlled by our "wound".

Take the example of feeling deprived
of "things" as a child. Perhaps you



3,310 likes

JULY 7, 2019

Log in to like or comment.

Second Recommendation

“You can be in a relationship for two years and feel nothing; you can be in a relationship for 2 months and feel everything. Time is not a measure of quality; of infatuation, or of love.”



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mindfulmft We accept and apply that knowing someone for years means you know them better than you know someone for just a few weeks or months. How we define better can make this statement true or false. There's no denying that over years we learn quite a bit about a person, many of their likes and dislikes, quirks, favorites, and least favorites. We know exactly how someone takes their coffee, or cooks their steak. We know the details of their lives, family, jobs, etc. This is all valuable information, and can certainly be the driving force behind "I know you well", but there's a different type of better. One that isn't defined by the amount of show quiz



784 likes

OCTOBER 27, 2014

Log in to like or comment.

Third Recommendation

“You can be in a relationship for two years and feel nothing; you can be in a relationship for 2 months and feel everything. Time is not a measure of quality; of infatuation, or of love.”

@mindfulmft #mindfulmft

mindfulmft • Follow

mindfulmft A repost of...well, myself. Because it's that good 🤔👉
Was re-reading it and nodding the entire time
We accept and apply that knowing someone for years means you know them better than you know someone for just a few weeks or months. How we define better can make this statement true or false. There's no denying that over years we learn quite a bit about a person, many of their likes and dislikes, quirks, favorites, and least favorites. We know exactly how someone takes their coffee, or cooks their steak. We know the details of their lives, family, jobs, etc. This is all valuable information, and can certainly be the

1,376 likes

APRIL 8, 2015

Log in to like or comment.

Future Work



Reposts

Identifying images that are almost similar and don't include them on the recommendation unless the caption is different

Similar accounts

Improve the recommendations by adding more related accounts to the database

Deployment

Build application to provide the service

Image-to-text algorithm

Recover text from images to improve the "understanding" over the post

Comments from posts

Sentiment Analysis over comments to provide insights on the impact of the post on users that interact with it

Thanks!

Do you have any questions?



APPENDIX

Resources

- [Coronavirus depression, stress, isolation: Mental health care online](#)
- [Emotional Wellbeing During the COVID-19 Outbreak](#)
- [10 Best Mental Health and Therapy Accounts on Instagram](#)
- [Instagram Therapists Are the New Instagram Poets](#)
- [28 Instagram Accounts That Destigmatize Mental Health](#)
- [Instagram Is Not Therapy and I'm Not an Instagram Therapist](#)