# Personality Traits Analysis from Forum Dataset

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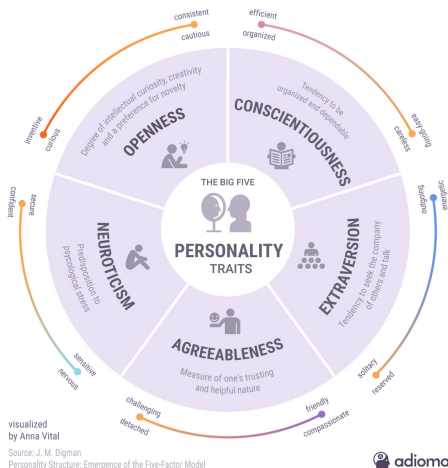
# Project tasks

1. Extract text from reddit using BeautifulSoup.
2. Identify text related to each user and select users according to some properties.
3. Install and run the big-five personality trait implementation in https://github.com/SenticNet/personality-detection with sample text.
4. Link the output of the webcrawler with the personality trait classification and implement a program that gets a single user as input and outputs their personality trait.
5. Compute semantic similarity of messages and predefined keywords associated with the personality traits.
6. Create a GUI, enabling the user to filter by subreddit and keyword or subreddit and username.

# Background: 5 personality traits

OCEAN:

- Openness
- Conscientiousness
- Extroversion
- Agreeableness
- Neuroticism

- GUI using Tkinter
- extraction of text from reddit using BeautifulSoup
- used library multiprocessing for threading
- installed and tested personality detection framework

# GUI



Personality Trait Identification

**Reddit Forum and Keyword**

**Enter the information required:**

**Reddit Forum and User**

**Reddit Forum Subject:**

**Username:**

**Submit**

# GUI

# Extracted Text from reddit

```
File  Edit  View  Search  Terminal  Help
('\n:', 454, u'Dun1993 , u'r/StarWars', u'Are we sure Han Solo is Kylo Ren\u2019s father?')
('\n:', 23, u'SlothsDoingYoga', u'r/StarWars', u'The new Han Solo')
('\n:', 17, u'solethprime', u'r/StarWars', u'Why didn\u2019t Han Solo come back to help with the Resistance before the events of The Force Awakens?')
('\n:', 26, u'lovedumbcat', u'r/StarWars', u'Rewatch, The Empire Strikes Back! This week I made little chocolate Han Solo using a silicone mold and Li
ly\u2019s Chocolate. They were a hit!')
('\n:', 8, u'SWGeek826', u'r/StarWars', u'Found this suspiciously repackaged \u201cHan Solo\u201d figure while grocery shopping.')
('\n:', 21, u'LowDownnDirty', u'r/StarWars', u'Whose the better pilot Han Solo, Lando Calrissian, Aton Rand, Carth Onasi, or Poe Damron?')
('\n:', 9, u'howlwolfy555', u'r/StarWars', u'Who would win in a fight? Han solo or the mandalorian??')
('\n:', 35, u'Solidarity64', u'r/StarWars', u'How could Han Solo not believed in the Jedi or the force?')
('\n:', 17, u'Ashkir', u'r/StarWars', u'I've only watched Han Solo. Where do I start?')
('\n:', 33, u'awndray97', u'r/StarWars', u'The most annoying thing in ALL of Star Wars is that Han Solo says "hell".')
('\n:', 6, u'realgeneral_nemeous', u'r/StarWars', u'Was Han Solo established as ex-Imperial at any point during the OT/Is there evidence that Lucas an
d others had this backstory in mind during ANH?')
('\n:', 19, u'tinrodie', u'r/StarWars', u'Le Creuset Han Solo roasting pan')
('\n:', 6, u'djcos25', u'r/StarWars', u'\u201cHan Solo? Ha, you don\u2019t need that guy if I\u2019m around.\u201d Custom 6 inch Black Series Dash Ren
dar')
('\n:', 14, u'miketheawesome24', u'r/StarWars', u'Is anyone not gonna talk about the fact that Finn's ROS outfit is oddly similar to Han Solos?')
('\n:', 3, u'mlaaam515', u'r/StarWars', u'At-st, troopers and south park style Han Solo guarding my freezer door at work.')
('\n:', 11, u'rmendiola13', u'r/StarWars', u'There were concerned with Han Solo\u2019s hibernation sickness. #proudpapa')
('\n:', 18, u'brownmanbakB24', u'r/StarWars', u'Why did they hire Han Solo?')
('\n:', 7, u'The_Zekta', u'r/StarWars', u'A Han Solo door I saw at a comic shop')
('\n:', 5, u'trenthescottish', u'r/StarWars', u'Han Solo\u2019s story is amazing')
('\n:', 3, u'KochIsland24', u'r/StarWars', u'Han Solo')
('\n:', 26, u'tierfonyellowaces', u'r/StarWars', u'Han Solo donning his golden dice on the Falcon (The Force Awakens Documentary)')
('\n:', 26, u'xX_AndyPer_Xx', u'r/StarWars', u'Who shot first? Han Solo or Greedo?')
('\n:', 1, u'mattnick1983', u'r/StarWars', u'This is my daughter's 2nd Christmas, and I've made it a new tradition to add a Star Wars Ornament every y
ear. The Han Solo Ornament has sound, which my wife is thrilled with...')
('\n:', 17, u'sbringel74', u'r/StarWars', u'After saving the princess and being a hand in the destruction of the Death Star, you would think the rebel
alliance would deem Han Solo as someone of great importance. But no, let\u2019s just send the princess and his friend to save him from Jabba. They go
t this.')
('\n:', 0, u'Hifihedgehog', u'r/StarWars', u'The Tragedy of Han Solo')
('\n:', 0, u'LookADrifter', u'r/StarWars', u'The Banana Convention - I Wanna Be Han Solo')
('\n:', 0, u'LeM0B', u'r/StarWars', u'I found this diy cardboard make of Han Solos blaster online , thought it would belong here.')
('\n:', 12, u'ZiKMeister', u'r/StarWars', u'Found Han Solo while I was in Sicily')
('\n:', 0, u'XIjustwantahugX', u'r/StarWars', u'A couple friends and I got dressed up for Halloween at work today. I was Han Solo.')
('\n:', 5, u'Goshawk5', u'r/StarWars', u'I started reading the Lost Stars manga and I must say anime Han Solo is a thing of beauty.')
('\n:', 3, u'Darth_Quixote', u'r/StarWars', u'Subtle reference to Han Solo's racing league in SW Resistance?')
('\n:', 9, u'KochIsland24', u'r/StarWars', u'Han Solo or Anakin Skywalker (Darth Vader)')
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Deep Learning-Based Personality Detection[1]

- Preprocessing
- Document-level feature extraction
- Filtering
- Word-level feature extraction
- Classification

# Personality Trait Classification with given Framework

# What next?

Todo:

- Link the crawly output with the personality trait classifier.
- Program that takes data of a user and outputs the respective personality trait.
- Personality trait classifier using keywords and semantic similarity, compare results.

Sharing the work

- divide all tasks evenly
- still collaborate and help each other

# References

[1] N. Majumder, S. Poria, A. Gelbukh, E. Cambria, *Deep Learning-Based Document Modeling for Personality Detection from Text*, IEEE Intelligent Systems, 2017

[2] *Personality traits picture* https://blog.adioma.com/5-personality-traits-infographic/