



ONLINE PERSONALITY

(A CRITICAL REVIEW PERSONALITY ANALYSIS OF FACEBOOK USER)

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Abstract

Nowadays almost all the people are using social media. In addition, it is very often that they post something on social media that relates with their interest or hobby which later can be analyzed to know their personality type. This moreover, if the psychological behavior can be accurate and precise for every person that is active in social media, we can do some kind of “foreseeing” what the person will like even though they have not posted it in the internet. Researches provides self-reported personality scores for what are known in psychological practice as the 'big five' traits: openness, conscientiousness, extroversion, agreeableness, and neuroticism—the OCEAN model. Through this, researchers could establish which likes equated with higher levels of particular traits e.g. liking 'Salvador Dali' or 'meditation' showed a high degree of openness. In this paper, researcher did a critical review of related literature and studies the relationship between language and the posts use on Facebook and personality traits.

Keywords- *Social media, openness, conscientiousness, extroversion, agreeableness, and neuroticism.*

Introduction-

Personality has been studied extensively in social science and psychology as it reflects the way people behave and react in online social media and in the society. Previous studies showed that personality significantly correlated with several real-world behaviors which makes it important in providing personalized services. For instance, it correlates with music taste, Extroverted people tend to like popular music, while open to experience people are more likely to enjoy unpopular one. Personality is also related to the formation of social relations, the pages that people like on Facebook, and the language that people use to communicate. People are increasingly using social media platforms, such as Twitter, Facebook, and Pinterest, to share their thoughts and opinions with their friends or people who are interested. Such scale of social media platforms provide us with a unprecedented opportunity to understanding psychological attributes on a large user base. In this paper, we want to analyze and predict personality by constructing a bridge between personality and language in popular social media such as Twitter, Facebook, and Pinterest, especially via Facebook. Specifically, we aim to find the linguistic features and their posts that distinguish

people with different personality types and explore how these features can be explain by personality. Further, using the these features we want to understand the degree to which we can predict personality traits from social media language.

Researches provides self-reported personality scores for what are known in psychological practice as the 'big five' traits: openness, conscientiousness, extroversion, agreeableness, and neuroticism—the OCEAN model. Through this, researchers could establish which likes equated with higher levels of particular traits e.g. liking 'Salvador Dali' or 'meditation' showed a high degree of openness.

| Big 5 Trait | Definition |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Openness | The tendency to appreciate new art, ideas, values, feelings, and behaviors. |
| Conscientiousness | The tendency to be careful, on-time for appointments, to follow rules, and to be hardworking. |
| Extroversion | The tendency to be talkative, sociable, and to enjoy others; the tendency to have a dominant style. |
| Agreeableness | The tendency to agree and go along with others rather than to assert one's own opinions and choices. |
| Neuroticism | The tendency to frequently experience negative emotions such as anger, worry, and sadness, as well as being interpersonally sensitive. |

However, little research has touch upon understanding personality through social media because of a few reasons. First, language on social media has richer content that makes the typical linguistic analysis tool perform poorly. For example, Twitter, an online social networking service that enables users to send and read short 140-character messages called "tweets", contains many Twitter specific language such as hashtag (#), at-mention (@), url, and emoticons. People tend to use shorten version of phrases on Twitter, for example, "iono" means "I don't know". Twitter poses additional challenges due to the conversational nature of the text, the lack of conventional orthography, and 140-character limit of each message (tweet). Also, collecting personality data is costly as well as its users are huge in number and spread that any sample cannot easily represent the whole population.

Social media gives users the opportunity to build an online persona through posting of content such as text, images, links or through interaction with others. The way in which users present themselves is a type of behavior usually determined by differences in demographic or psychological traits. Using large data sets of users and their online behaviors, recent studies have managed to successfully build models to predict a wide range of user traits such as age, gender, occupation, personality, political orientation and location. Studies used different types of information, ranging from social network connections which use the homophily hypothesis to text from posts which are rooted in hypotheses about language use.

The study of profile images is particularly appealing as these are photos the users choose as representative for their online persona, and moreover, users can post pictures that do not stand for themselves. This choice is a type of behavior associated at least in part with personality, which is usually expressed by the five factor model - the 'Big Five' – consisting of openness to experience, conscientiousness, extroversion, agreeableness and neuroticism.

For example, extroverts enjoy interacting with others, have high group visibility and are perceived as energetic. This could lead to extroverts using profile pictures involving other people or where they express more positive emotions. Users high in conscientiousness tend to be more orderly and prefer planned behaviors. This could lead users to conform to norms of what is expected from a profile picture i.e., a frontal photography of themselves. Conversely, users high in openness to experience may be more inclined to choose unconventional images and poses, as a general inclination of this type of people for art and novelty. Neuroticism is associated with negative emotions, which could also be reflected through users' choices of profile images.

Previous studies have shown that personality traits are predictable from images, demonstrating the existence of a correlation between personality and profile picture choice in social media. However, these fall short in some aspects. Foremost, the features of the models provide no interpretability and thus are not useful for psychologists who wish to understand the underlying correlations and generate hypotheses for further testing. Moreover, the data sets analyzed were very limited in size and user diversity, a problem that is very common as well in most psychology research.

"The ability to judge personality is an essential component of social living—from day-to-day decisions to long-term plans such as whom to marry, trust, hire, or elect as president," said Cambridge co-author Dr David Still well. "The results of such data analysis can be very useful in aiding people when making decisions." Youyou explains: "Recruiters could better match candidates with jobs based on their personality; products and services could adjust their behavior to best match their users' characters and changing moods. "People may choose to augment their own intuitions and judgments with this kind of data analysis when making important life decisions such as choosing activities, career paths, or even romantic partners. Such data-driven decisions may well improve people's lives," she said. If such predictions prove accurate, employers may have good reason to poke around our Facebook pages to figure out how we would get along with others at the office. And Pentagon officials want to use personality assessments to make better decisions on and off the battlefield. A recent study

by researchers at the University of Maryland predicted a person's score on a personality test to within 10 percentage points by using words posted on Facebook.

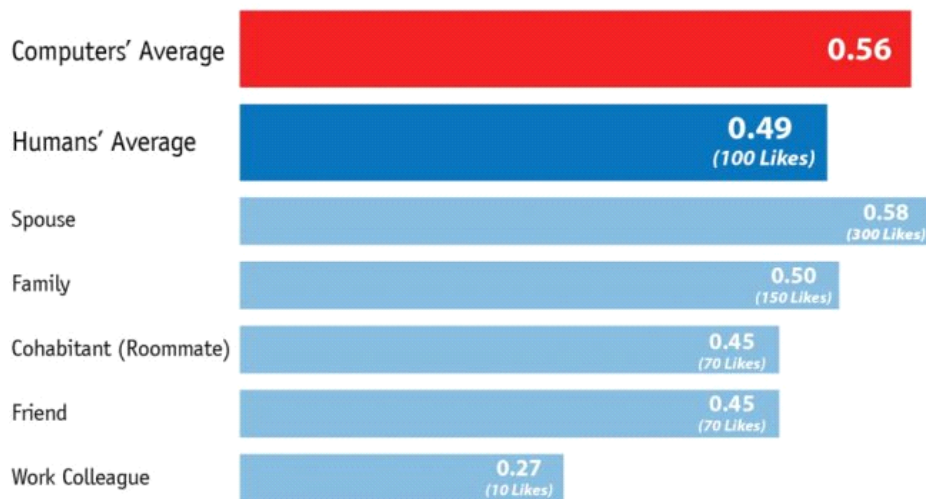
Turns out you can size up personality just by looking at a person's Facebook profile. While that may not seem like a big deal, it is providing fodder for academics who are trying to predict temperament based on the things we post online.

"Lots of organizations make their employees take personality tests," said Jennifer Golbeck, an assistant professor of computer science and information studies at the University of Maryland. "If you can guess someone's personality pretty well on the Web, you don't need them to take the test." People who tested as extroverts on the personality test tended to have more Facebook friends, but their networks were more sparse than those of neurotics, meaning that their friends were less likely to know one another than were the friends of other Facebook users. People who tested as neurotic had more "dense" networks of people who know one another and share similar interests.

How accurate can computer models judge personality compared with humans?

Accuracy, correlation with self-ratings

(The number of Facebook Likes computer models need to achieve a higher accuracy)



The researchers also found that people with long last names tended to be have more neurotic traits, perhaps because "a lifetime of having one's long last name misspelled may lead to a person expressing more anxiety and quickness to anger," according to the study. People who tested high on the neurotic scale also tended to use a lot of anxiety-associated words, such as "worried," "fearful" and "nervous," on their Facebook posts. They also use words describing ingestion: "pizza," "dish, "eat."

Sherry Turkle, a professor of the social studies of science and technology at the Massachusetts Institute of Technology, says that people who spend a lot of time online, on Facebook and other sites, actually may be more isolated from the world than in touch with it.

Trying to understand someone's "real" personality from their daily postings on Facebook and Twitter misses too much information, according to Turkle, author of "Alone Together: Why We Expect More From Technology and Less From Each Other." "If we are taking what people do on Facebook as a measure of their sociability, does it measure how well they can apologize and say they are sorry?" Turkle asked. "Does it measure their emotional strength or weakness? It isn't capturing their voice, their facial expressions, the visual cues and how you feel with this person next to you in the room." Turkle, a clinical psychologist, interviewed hundreds of people for her book. Many of them feel they have to "perform" on social media sites to act cooler, more interesting or funnier than they are in real life, she says. "There is so much fear of missing out," Turkle said. "You are there doing your little things every day, and everyone else is skiing at Gstaad. People don't like to write that their dog died."

Figuring out whom and what we can trust online is becoming more important as social media networks keep getting bigger. Facebook now says it has 600 million active users worldwide (nearly 150 million in the United States); Twitter claims nearly 200 million.

As for herself, Golbeck has two Twitter accounts, one for friends (mostly fellow Caps fans) and one for professional colleagues. She also keeps a tight rein on her Facebook friends (about 120). She believes Facebook and Twitter will continue to evolve, and users will get more savvy about how they use social media and who gets to look at our private lives. Friends' lists are getting smaller as users remove the random people they don't know very well. "I can already see it in my students," she said. "It's no longer a race to connect to the most people. It's about sharing important things with a smaller group of people," she said.

Conclusion:

In this paper, researcher studied the relationship between human language and their posts on Facebook and personality traits. Specifically, we want to know how linguistic features correlate with each personality trait and to what extent can we predict personality traits from language.

Moreover, we investigate the predictive power of individual features and combined features in this analysis. With the concatenation of all the features extracted, it can be predicted that social media is one of the most frequent destination for internet users. Inferring the personality traits of users in social media not only helps us understand their online behaviors, but also gives us the information to provide better personalized services and improve the product. However, predicting personality can also lead to privacy issue that expose the psychological details of online users to the public. These reasons make this study more

important that it tries to understand personality traits from social media and explores the degree to which we can predict personality traits simply using language on social media.

It has been presented the first large-scale study of profile photos on social media and personality that allows for psychological insight. To this end, it used a range of interpretable aesthetic and facial features. It can be concluded that each personality trait has a specific type of profile picture posting. Users that are either high in openness or neuroticism post less photos of people and when these are present, they tend not to express positive emotions. The difference between the groups is in the aesthetic quality of the photos, higher for openness and lower for neuroticism. Users high in conscientiousness, agreeableness or extroversion prefer pictures with at least one face and prefer presenting positive emotions through their facial expressions. Conscientious users post more what is expected of a profile picture: pictures of one face that expresses the most positive emotion out of all traits. Extroverts and agreeable people regularly post colorful pictures that convey emotion, although they are not the most aesthetically pleasing, especially for the latter trait. Future work will analyze a more diverse set of psychological traits by looking at a wider set of photos that users post, curate or engage with using social media. So overall the whole story can be concluded in the following chart as per the studies have been done earlier but this is not enough, many more are still waiting to to studies as this OCEAN Model is just a part of the whole complicated study about personality.

| Big 5 Trait | Example Behavior for LOW Scorers | Example Behavior for HIGH Scorers |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <i>Openness</i> | Prefers not to be exposed to alternative moral systems; narrow interests; inartistic; not analytical; down-to-earth | Enjoys seeing people with new types of haircuts and body piercing; curious; imaginative; untraditional |
| <i>Conscientiousness</i> | Prefers spur-of-the-moment action to planning; unreliable; hedonistic; careless; lax | Never late for a date; organized; hardworking; neat; persevering; punctual; self-disciplined |
| <i>Extraversion</i> | Preferring a quiet evening reading to a loud party; sober; aloof; unenthusiastic | Being the life of the party; active; optimistic; fun-loving; affectionate |
| <i>Agreeableness</i> | Quickly and confidently asserts own rights; irritable; manipulative; uncooperative; rude | Agrees with others about political opinions; good-natured; forgiving; gullible; helpful; forgiving |
| <i>Neuroticism</i> | Not getting irritated by small annoyances; calm, unemotional; hardy; secure; self-satisfied | Constantly worrying about little things; insecure; hypochondriacal; feeling inadequate |

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