[www.cs.umd.edu/~golbeck/pubs/5.Predicting%20personality%20with%20social%20behavior.pdf](http://www.cs.umd.edu/~golbeck/pubs/5.Predicting%20personality%20with%20social%20behavior.pdf)

big 5 (personality prediction system) openness conscientiousness extroversion agreeableness neuroticism

Neuroticism and openness negatively correlated to friendship centrality (suggests they don’t have many friends) and positively correlated to adversarial centrality

Social and extraverted people spend more time with others (they create larger social circles)

Agreeableness low conflict with peers

Conscientious impacts contact frequency

What they look at in social groups to predict personality

(network bandwidth NET) the amount of overall activity and the size of their social group. The distribution of activity over time. How long they have been using the social media site’

(message content MSG) they type of messages sent. Do they contain links, photos, were they forwarded

(pair behavior PAIR) their behavior toward their friends and followers both the average and standard deviation of measures and various actions across friends and followers

(reciprocity of actions REC) the degree of how their actions are reciprocated by their friends

(informativeness INF) how informative various behavioral features across all the friends, are there specific types of actions uniform across the group or favor a small group rather than others

(homophily HOM) all previous information computed for the persons friends to understand the social circle

NET and MSG show their behavior in public towards all friends, PAIR capture actions the indicate decreasing social distance with respect to individuals ex. Close friends long conversations = decrease in social distance, INF capture the social network of the people computed for a number of pair features. INF shows is the person social to all or just some people. Can be less informative if the person acts the same with all people the most informative would be if they only display a behavior with 1 person and that friend could be easily identified. HOM – long known theory. People tend to be friends with people that have similar interests and personalities. You can examine the behavior of their friends to find what another person is like.

Look at whether the group is homogeneous or heterogeneous (entrepreneur people create hole, connect with a diverse set of people. Compute the average of the above features for the friends of the person.

Bandwidth and messaging

Propagation- shows their reputation in the network. Mostly based on propagation – transfer of ideas. No reciprocation to propagation means they are probably just an acquaintance

Back and forth- intimate conversation. Friendship

Distribution of behavior across friends (KL)

Non-uniform- one person 1 all others 0

Uniform- least informative. X activity is spread across

High values of KL means means high values of x are informative, tell you who the friends might be

Tell me who your friends are (FF)

Well-adjusted individuals will exhibit behaviors congruent with the group.

To compute normative behavior patterns compute mean of above features for each friend B of user A

Each of the above features is indicative of a personality trait

Examples

https://www.ted.com/talks/jennifer\_golbeck\_the\_curly\_fry\_conundrum\_why\_social\_media\_likes\_say\_more\_than\_you\_might\_think

Liking pages can show information not linked to content, because of the concept of hemophily the act of liking the page not the page itself can give information to computer analyst. In example it was computed that one of the top 5 things that showed somebody was intelligent on facebook was seeing that they liked a page about curly fries, curly fries have no correlation to the IQ of a person. The page was most likely started by an intelligent person whose friends saw they made the page and because people are like their friends they are also likely to be smart and liked the page and it spread across a group of smart people. Though liking the page was an indicator they liked curly fries the actual page content meant nothing when looking at the intelligence of a person.

Computer analyst also make systems to predict events in your life. They take information that may seem small alone but together hint a life event. A while ago there was a teenager who had gotten mail from target that showed sales on diapers, baby clothes, the likes. This was before the teenager had told anybody that she was pregnant. Looking at things like she bought more vitamins than normal, she bought a bigger purse ( one big enough to fit diapers and baby things in it) etc. small things that don’t individually say she was pregnant could together point to a pregnancy. Computer analyst can look at others who were pregnant and come up with a formula that could predict if a woman was pregnant with pretty good accuracy just by looking at what other woman bought, looked at, liked, posted on social media or other websites.

http://www.thejlsagency.com/social-media-and-market-segmentation-part-1-of-2/

Market segmentation

targeting specific market segments through social media, marketers can learn the personal qualities, hobbies, likes, dislikes and attitudes of potential consumers, knowledge that can lead to stronger and more long-lasting consumer relationships.

companies may be able to save money and maximize efficiency by targeting not only specific demographics, but also specific individuals, which could lead to further segmentation targeting even the smallest communities

http://csi.mckinsey.com/knowledge\_by\_region/global/using\_social\_media\_to\_understand\_your\_consumers

social media exponentially magnifies the power of Word-of-Mouth, giving each consumer access to thousands of social ‘peers’ facing similar purchase situations and experiences. This access to information empowers the consumer and many become powerful brand ambassadors

picture citation

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