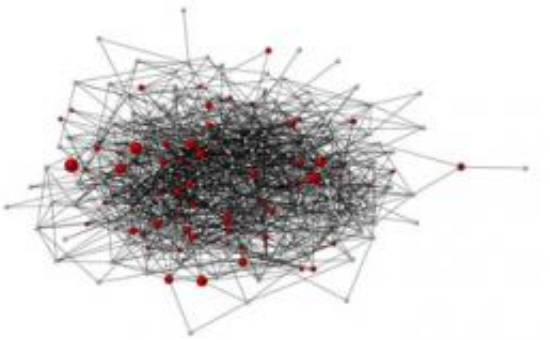
# Study shows Facebook friend relationships due mostly to similarities between people

December 20 2011, by Bob Yirka



College students' tastes and social networks on Facebook. Nodes represent students and lines represent Facebook friendships, where red nodes are students whose "favorite music" includes classical/jazz artists and node size is proportionate to the quantity of classical/jazz artists the student lists. Credit: Kevin Lewis, Harvard University

(PhysOrg.com) -- Sometimes in science, the obvious must be studied to prove that the things that everyone thinks they know to be true, really are. Such is the case with Facebook. Most people intuitively understand that the people they “friend” and keep as such, are people they sort of like; perhaps not in the traditional sense of a personal friend, but as someone they feel comfortable with maintaining as a presence in their life.

Most people also know that deep down inside, the people they like most, are those that are most like them, otherwise, there would be a constant

stream of contention between them, or worse, apathy. Thus, it's not likely to come as a surprise to many to learn that after four years of actual clinical study, a research team from Harvard, funded by the National Science Foundation, has shown that people do in fact tend to friend people on Facebook, and keep them as friends, based mostly on the fact that they are much the same kind of person as they are. The team has published a paper regarding their findings in the *Proceedings of the National Academy of Sciences*.

The researchers, Kevin Lewis, Marco Gonzalez, and Jason Kaufman studied the Facebook habits of a group of some 200 college students over a four year period; from freshman enrollment to graduation. The students were all from the same un-named university and all allowed enough public information sharing on their Facebook accounts to allow the researchers to see who was friended and un-friended as well as other factors such as musical tastes and where they lived respective to school.

In studying the data collected, the researchers found that students who have shared tastes in music, for example, tended to friend one another, though there were exceptions; those that listed alternative music tended to lose interest in friends who did the same, due, the researchers theorize, to the loss of feeling independent about their choices of music. The data also showed reading preferences had little influence on much of anything, likely because most reading during college is course related.

But what the researchers really wanted to know was, did the act of "friending" cause students to change anything about themselves based on what they learned from others that had other interests, or was it all about sticking with those that were most like them? According to the data, it was almost all about the latter. Students tended to friend those that lived near them, who were the same race, had the same major, liked the same kinds of movies, listened to the same types of music (with a few exceptions) and had the same friends, etc. far more often than they did

with those that didn't fall into these categories, sort of proving what most would have guessed all along; that we humans are most comfortable being around those who are most like we are.

There were some exceptions of course; some students added classical or jazz music to their list of preferences after friending people that had already done so, but such examples were few and far between.

The researchers conclude by suggesting that Facebook serves more as a means for building social ties between people who resemble one another than as a way to expand their interests or social circle. Such information is likely to prove valuable to not just sociologists, but advertisers, politicians and Facebook users themselves.

**More information:** Social selection and peer influence in an online social network, *PNAS*, Published online before print December 19, 2011, doi: 10.1073/pnas.1109739109

**Abstract**
Disentangling the effects of selection and influence is one of social science's greatest unsolved puzzles: Do people befriend others who are similar to them, or do they become more similar to their friends over time? Recent advances in stochastic actor-based modeling, combined with self-reported data on a popular online social network site, allow us to address this question with a greater degree of precision than has heretofore been possible. Using data on the Facebook activity of a cohort of college students over 4 years, we find that students who share certain tastes in music and in movies, but not in books, are significantly likely to befriend one another. Meanwhile, we find little evidence for the diffusion of tastes among Facebook friends—except for tastes in classical/jazz music. These findings shed light on the mechanisms responsible for observed network homogeneity; provide a statistically rigorous assessment of the coevolution of cultural tastes and social

relationships; and suggest important qualifications to our understanding of both homophily and contagion as generic social processes.