'Flocking' behavior lands on social networking sites

By Sharon Jayson, USA TODAY

The interconnected web of our friends, family, neighbors and acquaintances may dominate our lives more than we know.

They've always been there, making up our social support systems. But now, largely thanks to the burgeoning popularity of online social networks like Facebook, researchers are discovering what a powerful influence our connections — both online and off — really have over our lives.

"Those of us who study social networks believe they matter — that things do spread along social networks," says Claude Fischer, a sociology professor at the University of California-Berkeley.

Because social networks online are much more clearly defined than offline connections, they have been a boon to researchers. And studies are finding that despite dire predictions from naysayers who warned that spending too much time online would be damaging to real-life relationships, the opposite appears to be true.

The findings, trickling in from early research, suggest health and psychological benefits for those who "friend" and are "friended." But as with all new media, critics say it's much too soon to know about all the possible long-term effects online social networking might have — from growing obesity and musculoskeletal problems to loss of privacy and overwhelming commercialism.

"Social networking sites have brought social networks into people's consciousness," says Barry Wellman, a sociologist at the University of Toronto in Canada who started analyzing social networks in the 1960s and has expanded his studies to online.

For the most part, being part of a social network is good for you, research suggests. For example, a study in this month's Scientific American Mind finds that social support and social networking offer benefits, from additional resilience to greater life satisfaction to reducing the risk of health problems. Other studies in the past two years have found that feeling like a part of a larger group helps in stroke recovery and memory retention and boosts overall well-being.

"In many ways, human beings behave like flocks of birds or schools of fish," says Nicholas Christakis, a physician and Harvard University sociologist who is co-author of a new book, Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives, out today.

"So many things we normally think of as individualistic — like what our body size is, or what we think about a political topic, or whether we are happy — are actually collective phenomena," says Christakis, 47.

Whether they're face-to-face or virtual, social networks influence human behavior and shape everything from finances to the way people vote, say Christakis and co-author James Fowler, a social scientist at the University of California-San Diego.

The authors suggest that the world is governed by what they call "three degrees of influence" — that is, your friend's friend's friend, most likely someone you don't even know — who indirectly influences your actions and emotions.

For example, when a friend starts exercising more, "I change my mind about how much I should be exercising or I share stories with my other friends who are influenced to do the same. You either change your behavior or you transmit information about the behavior to others, who change their behavior," says Fowler, 39.

Their studies, published since 2007, have suggested that happiness is similarly "contagious," and so is obesity and quitting smoking. But not everyone agrees.

Papers co-written by economist Jason Fletcher, an assistant professor at the Yale University School of Public Health in New Haven, Conn., have tried to replicate it for conditions that do not appear to be within a person's control, including acne, height and headaches.

"If you use their method on health outcomes you think aren't contagious, you will get contagion because of the limitations of their method," he says.

Christakis says they don't always find contagion, such as happiness between co-workers. And he says other researchers have replicated their findings.

Much of the work by Christakis and Fowler is based on research using the Framingham Heart Study, a key group of 5,124 adults within a larger network of 12,067 people in Framingham, Mass. Each had an average of 10.4 ties to others — totaling 53,228 ties.

"We're able to trace the flow of influence using mathematical tools from person to person to person, and you can see it spreading through the network and reaching you," Christakis says.

'The nature of the beast'

Among those concerned about the Internet's effect on relationships are Michael Bugeja, director of the Greenlee School of Journalism and Communication at Iowa State University, and author of the 2005 book Interpersonal Divide: The Search for Community in a Technological Age.

Although he maintains a Facebook page that he says he checks for about 20 minutes a week, "because you have to know the nature of the beast," Bugeja says his concerns have only increased.

"Most of the studies that have been done have been biased from the start," he says.

And now, his unease is focused more on the social networking sites themselves, saying it's time to "step back from the hype about social networks" and look at the
question from a computer science perspective.

"They are essentially data mining what you are putting on that page," he says. "The application is not programmed to bring you a friend. The application is programmed to make money, and they make money by data mining and by selling virtual ads."

He's also troubled because he says educators are shortchanging kids by not warning them about the potential dangers, including Facebook addiction.

The first U.S. residential treatment center for Internet addiction opened this summer in Washington state.

"Unless we cover both sides of social networks and the Internet, all we're doing is helping the revenue generation of these pre-programmed technologies," Bugeja says.

Wellman, whose research points to positive outcomes for social networking sites, nevertheless shares the concern about privacy.

"I analyzed my (Twitter) followers and was amazed at what you can find out about me and who my networks are with. You can't escape your past. That's a real danger of social networking sites," he says.

Nancy Baym, an associate professor of communication studies at the University of Kansas in Lawrence, suggests that at least when it comes to relationship effects, fears are not backed up by the research so far.

"There's not compelling evidence that spending time on social networking sites and expanding our social circles damages the close relationships we have," she says.

"People think if you're hanging out on Facebook, you're not having quality face-to-face time. That is not supported."

Measuring friendships

Sociologist Duncan Watts, a research scientist at Yahoo! Research in New York City, says social networking sites are for the first time giving us a way to measure our friendships.

"The perception is you have a lot more friends than you used to. All these not-real friends you have on Facebook — you had them before, you just didn't count them," he says. "A lot of this is the measurement effect. We can measure things we couldn't measure before, and that changes our perception."

A study co-written by Wellman, to appear next year in the journal American Behavioral Scientist, finds that heavy Internet users have the most friends, both offline and online. "In general, Internet users do not have fewer offline friends than non-users," the study says.

"The more people are online, the more they are relating to everyone else," he says.

The study of 1,178 adults ages 25 to 74 is based on data collected at the Center for the Digital Future at the University of Southern California in 2002 and 2007. In both years, the study found adults on average had about 10 friends they meet or speak with at least weekly and a few additional friends who are online only, or who began friendships online and then met in person.

"The mythology we have is that people used to spend whole days hanging around community — like the bar at Cheers," Wellman says. "They didn't. They stayed home. If we switch from television to social networking sites, it's a switch toward sociability — not away from it."

Research by social psychologist Robert Kraut, a professor of human-computer interaction at Carnegie Mellon University in Pittsburgh, published last year in the journal Information, Communication & Society, found that those who used the Internet to meet people online more than to communicate with friends and family increased their depression and feelings of isolation. But research has shown that most people communicate online with someone they already know — and those who did that actually reduced depression, the study found.

"The Internet in general seems to be taking time away from TV watching, but we don't know in particular about these social networking sites, which themselves are social activities," Kraut says.

Jeri Saper, 52, of Austin is a fully immersed user of Twitter and Facebook, on both her computer and her phone.

"I definitely feel more connected to people," she says. "But I'm more connected to people I hadn't had close ties with for a long time. It does not make me closer to the people I'm already close friends with."

People are reorganizing their lives to expand their communication media, says Keith Hampton, an assistant professor of communication at the University of Pennsylvania in Philadelphia.

"We're not replacing everyday personal social networks with everyday online social networks," he says. "That's not the way it works. We're not substituting online for offline. We're augmenting."

Wellman, who more than 30 years ago founded the professional society for the field of social network analysis, agrees.

"We have more means of being in touch, and we seem to be using all of them."

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