In his groundbreaking research, World Education Congress speaker Nicholas Christakis has shown how our seemingly trivial behaviors and ideas can significantly affect the lives of people we don’t even know.

by Tara Swords | May 29, 2012

In the mid-90s, Nicholas Christakis was a hospice doctor on the south side of Chicago. It was just as important and depressing of a job as you might imagine: He visited terminally ill patients who had chosen to die at home and helped them through the final months, weeks and days of life.
At the time, his lab at the University of Chicago was studying the so-called “widowhood effect”—the increased probability of a person to die after his or her partner has died (his interest in caring for the sick had roots in his own life). As he told The Harvard Crimson last year, his mother suffered from cancer from the time he was six until she died when he was 25 years old. Christakis knew firsthand the stress that illness puts on family members.

One day he noticed that the daughter of a patient was exhausted from caring for her dying mother. Then he learned that the daughter’s husband had also become run-down and sick. Finally, on his way home from a family visit, he received a call from the husband’s friend—a total stranger to Christakis and only loosely connected to the sick woman. The man was growing worried about his friend.

“I just suddenly realized that the widowhood effect wasn’t confined to husbands and wives,” Christakis says. “It could affect parents and children or other sorts of pairs—and frankly it wasn’t even confined to pairs of people.”

Suddenly, he was wondering about the other ways in which humans affect one another. It was a “eureka” moment—and none too soon, if you’d asked his wife, Erika.

“About 10 or 15 years ago, my wife just got fed up and asked, ‘Could you study birth? Why do you have to study death if you’re going to study demographic phenomena?’”

And so a new path for Christakis was born: Rather than focus on the mysterious ways in which death affects pairs, he would focus on the ways the living affect each other. He would study social networks.

No doubt you’re already thinking it: Facebook. But this was long before the term was co-opted by the website and the Aaron Sorkin movie. In fact, Christakis’ interest was in face-to-face networks, which are a sociological phenomenon that date to pre-history.

“Humans have been making networks for tens of thousands of years, ever since we emerged onto the African Savannah,” Christakis says. “There’s something very deep and fundamental and very beautiful, actually, about these networks that we make.”

It was a natural shift for Christakis, who is not only a physician but also a sociologist and public health specialist (that’s three advanced degrees, if you’re counting). His new area of study combined all of his disciplines into a single focus that seemed ripe for exploration.

And it was. Since teaming up in 2001, Christakis and his research partner James Fowler have discovered that human networks act as a medium for the transmission of far more than just germs or information. When viewed in the context of a social network, many things—violence, money, certain types of drug use, seatbelt use, kindness, joy, sadness, depression, unhealthy eating, loneliness and smoking—are literally contagious.

“We were very surprised at the extent to which a lot of non-obvious factors do actually spread in networks,” Christakis says. “Our findings regarding obesity and the extent to which your weight may depend upon the weight of people who are strangers to you—your friends’ friends or friends’ friends’ friends—this was surprising to us.”
Christakis likens human networks to ant colonies, where members work collectively toward a common goal. The same could be said of human networks at a high level: They aim to spread wellbeing among their members, but they end up spreading lots of other things, too.

“When I’m kind to you, this kindness ripples in a kind of pay-it-forward way, and the benefits to the group are much greater than the benefits that accrue just from my kindness to you,” he says. “So the network kind of magnifies my contribution. Now, it also magnifies evil, so there’s a complex balance that’s taken place over the eons whereby we have come to have the kind of network that’s really optimized, overall, for the propagation of desirable properties.”

The obesity research in particular yielded some attention-grabbing headlines. It was based on Christakis and Fowler’s examination of 32 years’ worth of data and the finding that obesity spreads through social networks. In fact, Christakis and Fowler found that having a friend who becomes obese made a person 57 percent more likely to become obese themselves. Even more surprising, an increased likelihood persisted even when it was a friend of a friend who became obese—or even a friend of a friend of a friend.

When the pair’s book—Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives—came out in 2009, it pulled Christakis’ work from the strata of academic journals and into the world of pop-science. It got the thumbs up from The New York Times, Wired and even Oprah. It also put Christakis on the map as an influencer himself; in 2009, he appeared on TIME magazine’s list of 100 most influential people in the world, and Foreign Policy magazine named him to its list of top 100 global thinkers in 2009 and 2010.

Today, Christakis is also a best-selling author and a renowned speaker who has given talks all over the world, including at TED conferences. And if people are fascinated by what he has found, then the business world is doubly fascinated. After all, the implications for organizations are astounding: By applying what Christakis has uncovered about the mechanics of social networks, organizations could gain useful—and profitable—insights into the behavior of their employees, customers and partners.

Christakis, with three colleagues, founded Activate Networks, a company that aims to help organizations harness the power of social networks by mapping those networks. Imagine that a company is getting dinged for workplace safety violations; if it can determine who the main influencers are, getting those few people to adopt certain safety practices can cause those practices to spread throughout the plant like fire. Smoking cessation programs could work the same way.

Such knowledge could also help meeting and event professionals increase their revenue. In the past, Christakis says, companies thought the most valuable customer was the one who bought the most. But imagine another customer who doesn’t buy much product but whose opinion can cause others to buy lots of product or take their business elsewhere.

“The second customer is more valuable, but you have no way of knowing that unless you map the network of interaction,” he says.

Despite all of the fascinating implications of Christakis’ research, he seems content to let others apply them. His main love, he says, is working in the lab, with its potential for thrilling discovery. He also loves
talking about his research, which he gets to regularly as a professor at Harvard, where his “Sociology 190: Life and Death in the U.S.A.” is consistently popular.

There’s something fitting about the fact that Christakis is now not merely teaching at Harvard—birthplace of the ultimate social network—but actually living inside its student community. He’s in his third year as master of Pforzheimer House, one of 12 houses into which undergraduate students spend their college years. (It was also the undergraduate home to Tyler and Cameron Winklevoss and Divya Narendra, who famously sued Facebook CEO Mark Zuckerberg for allegedly stealing the idea upon which Facebook is based.)

In fact, Christakis and his wife are co-masters, which officially means they’re responsible for the intellectual, moral and social tone of the house. They get involved in everything—arranging speakers, officiating events, signing and handing out diplomas and helping students sort out problems and celebrate successes. Christakis has approximately 400 students in his care, and that has resulted in an interesting expansion of his own social network.

“I noticed recently, since I’m Facebook friends with lots of these students, that I get information,” he says. “These undergrads will clue me into something, and then a month later my brother or sister will [say], hey, did you see this viral video?”

So how does he view the rise of the virtual social network in light of his research on in-person relationships? You might expect him to decry the degradation of the face-to-face network, but he doesn’t. In fact, he seems to view online networks entirely without judgment or even a hint of naysaying.

“These types of modern communication technologies, including online social networks, are grafted onto a very ancient apparatus,” he says. “It’s not the technology that structures our social interactions.”

Ask your grandmother how many friends she had when she was 10 years old, he suggests. She’ll probably say she had one or two best friends, plus a group of four or five girls who spent time together. Now ask Christakis’ 10-year-old daughter and she’ll give the same response, he says, despite having an iPhone in her pocket. Sure, the technology is new. But it hasn’t changed the fundamental nature of the network.

What may change, though, is the way we view our own social networks and our place within them. And that could be largely due to Christakis’ groundbreaking research that helps us understand the tiny plays we act out daily and how they intimately affect people we may never even meet. It’s already happening for Christakis, and he need look no further than his own life, where he now has a bit more incentive to behave altruistically. If he does, it may benefit his friends, his friends’ friends and those people’s friends—and on and on and on as the effect ripples throughout all of those networks.

“It’s reinforcing. It’s like when you take a positive step in your life, it has all these additional benefits, so it kind of makes it a little bit better,” he says. “I’m aware of the fact that if I eat too much, it affects others. Or if I’m happy, it affects others. Or if I’m kind to others, it affects others. This is a basic, almost trivial observation, but I kind of feel it much more now than I ever did.”