

## Big Data revolutionizing how we research science and medicine

“The scientific method itself is growing obsolete,” says Atul Butte, an entrepreneur and associate professor of pediatrics at the Stanford School of Medicine.

This concept draws from [an essay](#) published in Wired Magazine in 2008 called “The End of Theory.”

According to the essay, so much information will be available at our fingertips in the future that there will be almost no need for experiments. The answers are already out there.

“Think about it,” Butte says. “The scientific method — we learned this in elementary school — is: We come up with a question, a hypothesis, and go make measurements to answer it. Now we’re living in this world where we already have the measurements and the data. The struggle is to figure out: What do we want to ask of all that data?”

Take, for example, a question Butte’s team has focused on recently: the rise in pre-term births in the United States. One theory, says Butte, points to an increase in exposure to environmental toxins.

Traditionally, this would be a challenging hypothesis to study. Medical records for these births aren’t necessarily in any one place, online. The same problem exists with records on air pollution, or weather patterns.

But that’s changing.

Now, Butte says, “you can connect pre-term births from the medical records and birth census data to weather patterns, pollution monitors and EPA data to see if there is a correlation there or not.”

**Read full, original article:** [How Big Data Is Changing Medicine](#)