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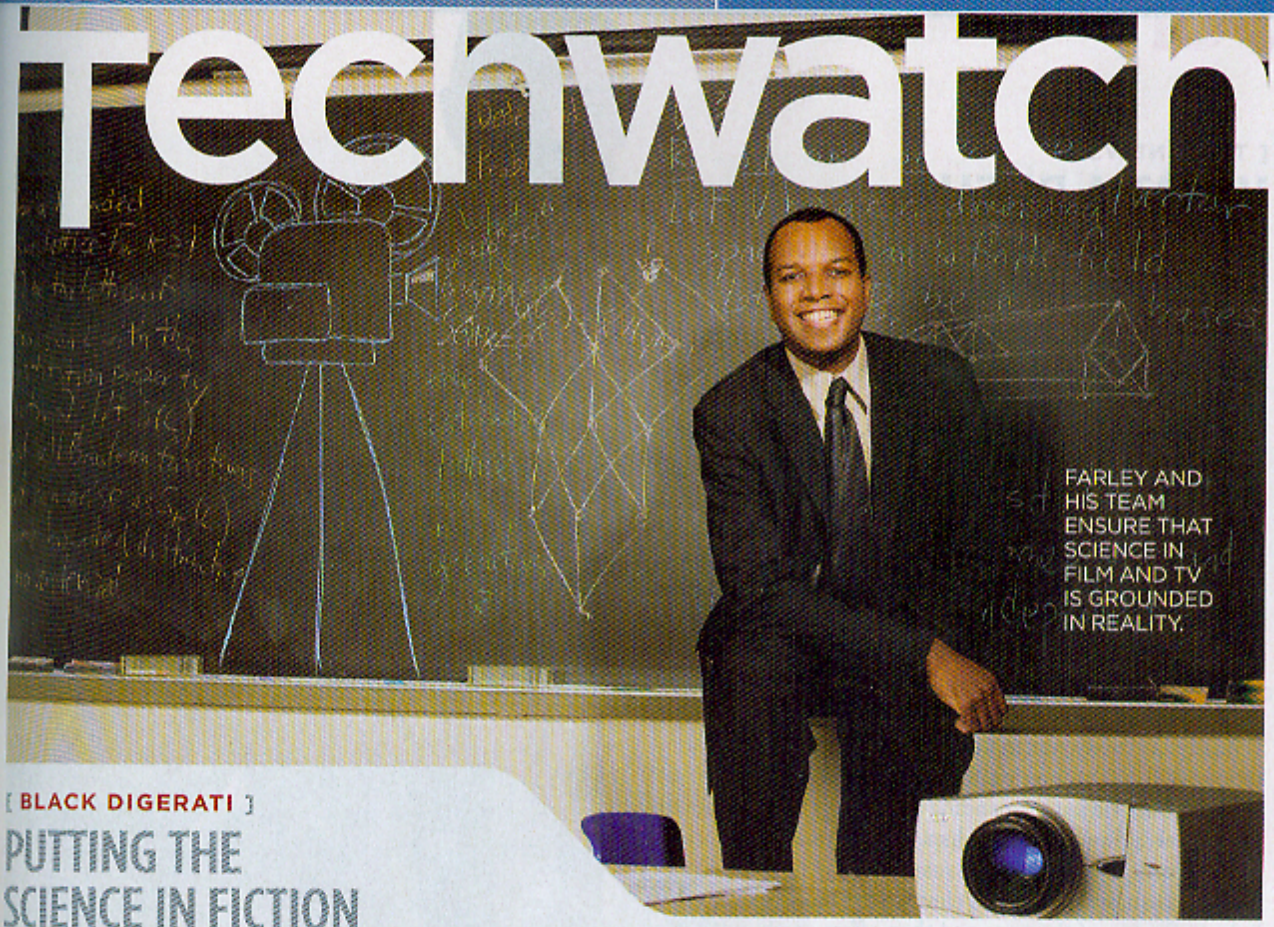

FARLEY AND HIS TEAM ENSURE THAT SCIENCE IN FILM AND TV IS GROUNDED IN REALITY.

[BLACK DIGERATI]

PUTTING THE SCIENCE IN FICTION

Jonathan Farley takes math to Hollywood

GOOD WILL HUNTING. A BEAUTIFUL MIND. PROOF. ALL are prime examples of Hollywood's fascination with quirky mathematicians. Television has also had its share of math-centric shows such as the CBS series *Numb3rs*. Screenwriters may make characters come to life, but there is usually someone else behind the scenes helping to make that college math professor or nuclear physicist appear real.

That's where Jonathan Farley, Ph.D., comes in. Head of 6-year-old Hollywood Math and Science Film Consulting, Farley, 38, and his team serve as technical advisers on films, TV shows, and other media projects to ensure mathematical, scientific, and medical details or jargon sound and look believable. It may be as simple as the placement of equipment in lab scenes or as detailed as complex equations written on a chalkboard.

Farley, a visiting professor of mathematics at the California Institute of Technology, had written about math and pop culture for *Time* in 2002 and knew the mathematicians/technical consultants on *Good Will Hunting* and *A Beautiful Mind*. Approached by a screenwriter to assist on a movie about math and the human genome, Farley reached out to his friend Lizzie Burns, Ph.D., a biochemist and a fellow Oxford graduate.

"I told her that we could make a business of this. I really didn't think that there would be extra work afterward. But when it did happen, I wanted producers to come to our company," explains Farley, who was a 2001–2002 Fulbright Distinguished Scholar to the United Kingdom and a recipient of the Harvard Foundation Distinguished Scientist Award in 2004.

Farley recruited other colleagues, mathematicians and scientists, to serve as consultants. One of the firm's first major projects involved consulting on scripts for several episodes of *Numb3rs*.

"We sparked a creative debate between the two creators," says Farley. For instance, "they wanted to use a mosaic theory where you only have five pieces of a 1000-piece puzzle, but yet you can figure out what the entire puzzle is. Tony Harkin [a member of Farley's staff] suggested looking at the math underlying the prediction of the path of hurricanes. I suggested something called secret sharing—a way of breaking up a secret into small parts and then distributing those parts to different people so that you can't know the secret until all of those people come together," explains Farley, who is also highly sought after for his counterterrorism mathematical modeling.

In addition, the company has advised NBC's *Medium*, and works on a few other projects a year, including dance, magic, theatre, and advertising. More recently, Farley and his team consulted on the animated educational film *Flatland*, based on Edwin A. Abbott's 1884 novella *Flatland: A Romance of Many Dimensions*, which featured the voices of Martin Sheen and Michael York. Homework assignments are tied to the latest DVD version of *Flatland* thanks to input from Farley, a mentor to women and minorities interested in math and science careers. "I love math, and I love teaching." And he loves helping filmmakers keep it real. —Carolyn M. Brown