

THE NEXT ACT | LIFE STORIES

THE PHYSICIST

Leonard Susskind, 77

Father of string theory

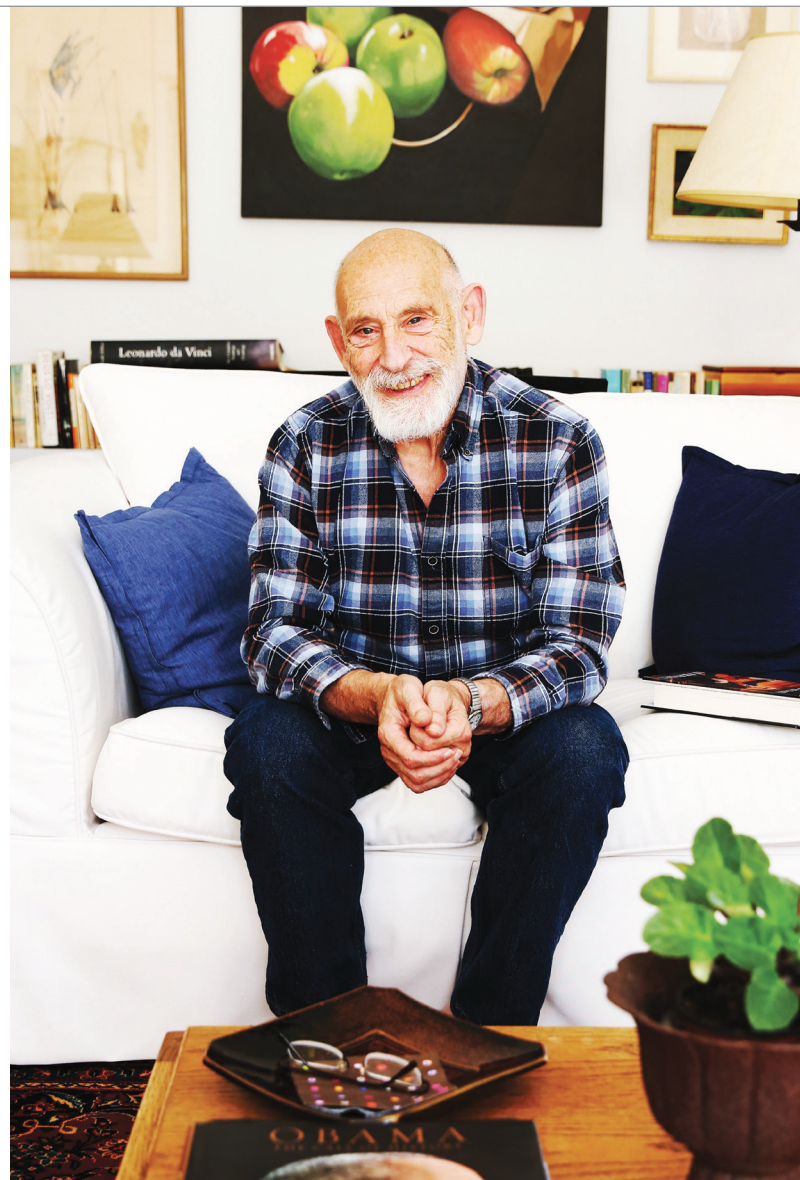
THE SON OF A HARD-WORKING PLUMBER FROM THE BRONX BECAME THE 'FATHER OF STRING THEORY' AND ONE OF THE WORLD'S MOST EMINENT PHYSICISTS. HE IS NOW A BEST-SELLING AUTHOR WHO IS NOT AFRAID OF A CHALLENGE.

Growing up, I knew nothing about academia. I came from a working-class background in New York. I was good at mathematics, but I had no idea that physics was a living, breathing career option.

I went to college to study engineering so that my father and I could fix boilers in the Bronx. Instead, I found physics. At first my father was appalled. Then I said that Einstein was a physicist. That was a name my dad knew; Einstein was also a Jew. My father asked if I was good at it. I said that I thought I was.

I got into an intellectual war with Stephen Hawking, one of the pioneers in the study of black holes. Gerard 't Hooft and I spent 20 years disproving Hawking's compelling argument. To say he was wrong and I was right would convey the wrong impression. Hawking put his finger on an important problem.

Today I'm usually the oldest in the room by about 15 years. I don't feel any different being 77 years old, though I know I'm not going to be here forever. On a day-to-day basis,



I still write papers, solve physics problems and interact with other physicists. I may be the only one in the world that doesn't know that I'm senile, but I continue to contribute to physics. The principle thing is that I am still having fun.

Recently, I've been writing books based on the lectures I give at Stanford for a scientifically interested community. The third book is coming out in September, it's about special relativity and the mysterious aspects of how things work.

The series is called The Theoretical Minimum, in tribute to Soviet physicist Lev Landau and also because I want to represent physics from the ground up. The books are meant to present the minimum amount you need to know in order to digest and learn in the shortest possible amount of time. I published the first book in the series when I was 74. It was received spectacularly

well. I thought I was writing a physics textbook, but it made the New York Times Bestseller list. It's gone way beyond my own expectations. I'm still getting emails everyday thanking me for it. It is striking that I receive these emails from all over the world: when I became a physicist most of my colleagues were American, or perhaps European. Now, physics is the most international and multicultural of any science.

I am fortunate to be able to interact with incredibly bright young people every day; it is very invigorating. I have not hit the point where I have intellectually slowed down. Everything hurts all the time, but then I take an aspirin.

I teach a bit less than I used to, simply because standing on my feet

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for two hours is harder than it used to be. Now I teach more advanced graduate students. This means I can sit at my desk at the front of the room to carry on the conversation.

I can see that the younger generation of physicists are every bit as passionate, smart and committed to understanding the world, its principles and the laws of nature as they have ever been. I see young physicists making big waves in the subject every day.

I have always been and will always be a curious person. If someone asks me if there is a God I'd say: "Gee, I don't know – let's entertain the possibility. Is he made out of atoms, does he follow the rules of quantum physics?" I like to ask questions that can be answered.

I regularly get young people asking for advice about how to achieve their goals, and I don't know what to say. If you are committed to something, if that is your passion, you have to fight to do it. If you are afraid, conquer your fear.

This is the latest in a series of profiles of individuals who are redefining later life that will appear in FT Weekend Magazine and at www.nextact.ft.com.

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