

Why I Left Start-ups and Returned to Teaching

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In his 2011 State of the Union address, President Obama said, *"If you want to make a difference in the life of our nation; if you want to make a difference in the life of a child — become a teacher. Your country needs you."* After reading the constant barrage of bad news about declining US competitiveness, loss of jobs, and our poor ranking in education internationally, I decided to try to become part of the solution. This decision to return to teaching came after first pursuing a long career in research, scientific software development, and biotechnology.

After college, I taught physics and math in the Peace Corps, but medical problems that affected close family members made me change to a career in scientific/medical research. I returned to graduate school and earned a Ph.D. in biochemistry. My thesis research focused on tubulin protein polymerization dynamics, a key component of cell division and a target for chemotherapeutic drugs.

I spent most of my career working in start-ups. At IntelliGenetics, I managed the group that established some of the first Internet-based computing tools for DNA and protein sequence analysis and created a network of Internet communication tools for biologists. For this work I was elected a fellow of the American Association for the Advancement of Science. At IntelliGenetics, I managed the NIH-funded BIONET National Computer Resource for Molecular Biology and the GenBank National Nucleic Acid Sequence Databank which collected the public data for the Human Genome Project.

Later I worked at other scientific software and biotech companies including Eos Biotechnology, an early genomics company, and Raven biotechnologies which tried to produce antibodies specific to fighting cancer cells.

During this part of my career, I was actively involved in the education of my two daughters. We sent them to public schools because both my wife and I received a good education from the California public school system. We thought it was important to support the public schools. However, as we attended school events, I grew concerned by the number of educational fads, e.g., "Brain-compatible Education," "whole language" reading, etc., that I saw sweeping through the school system and the deemphasis of teaching phonics, spelling, grammar, arithmetic facts, and other critical, fundamental skills.

During this time we all read news stories about declining student performance and the lack of qualified teachers, particularly in science and math.

At first I tried to assist the school districts as a volunteer. I was the first chairperson of the Citizens Oversight Committee for the San Mateo Union High School District Measure C school construction bond issue designed to modernize the local high school infrastructure.

Volunteering was not effective enough, and I finally decided to leave the start-up lifestyle and return to teaching full-time. I received my teaching credential in early 2010 and spent the spring semester as a substitute teacher.

Due to the CA state budget crisis, this was a tough time to try to return to teaching. Many established teachers were getting lay-off notices and jobs were scarce. In June 2010 I was hired to teach physics part time (3/5ths) at Junipero Serra High School where I spent the 2010 - 2011 school year. Due to the bad economic times and declining enrollment, Serra was only able to offer me a 2/5ths position for the next

school year. This would have meant a one third pay cut and loss of health insurance. Consequently, I turned the offer down and started looking at other options. I obtained a one year contract position for the 2011-2012 school year in the math and science departments at George Washington High School in San Francisco. At the end of the year the SFUSD and CA state budget crises, plus my lack of seniority in the SFUSD, ended this position too.

Given all of the hurdles to obtaining a full time and fulfilling teaching position, I decided to tutor full time instead. Tutoring gives me the ability to work one-on-one with students and hopefully make a bigger impact in their lives. My years doing scientific research and working in industry enable me to give students real examples of how math and science are actually used and why it is worth their effort to learn these subjects. I hope this story strikes a chord in you, and I would be delighted to help students who desire to excel! Please email me at davidk@kristutoring.com.

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