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The Road Not Often Taken
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ABSTRACT

Is there a simple career path to working in the life science industry? Do you need to study programming in college. Do you need to be a statistics major? What kind of skills can I learn while still at the university so that I can work in the life sciences? If I major in political science, can I still work in pharma or biotech? What if I am a history major, will that work? As with anything that you learn while you are in school, it is not always the content that will advance you to your final career. In this paper, I will discuss my path to having a successful career as a programmer. You will see how the twists and turns of my life helped me to get where I wanted to go. My story is not unique or unusual. I will talk about how an unusual or unique path can bring you success, no matter what your background may be.

INTRODUCTION

For many occupations, there is a simple path to getting the right education. Should you pursue just an undergraduate degree or is further education warranted? To become a doctor, most people major in a science (preferably biology), apply to medical school, take an internship at a hospital, possibly pursue a residency and then start practicing medicine. To become a lawyer, most people major in political science, go to law school, take and pass the bar exam and then find a job. But what do you need to become a clinical or statistical programmer? What do you major in at a college or university? Do you need to go to graduate school? And how do you go about finding your first job? Is the path a clear cut one? In this paper, I will talk about my path and the different detours that I made through my career.

MY EDUCATION

From the time that I was five years old, I wanted to be a teacher. I wanted to share information and help other people to know what I know. From the basic elements taught in elementary school, I wanted to work with children and show them how education can lead them in many different direction. A great number of people choose their career first and then try to match an education path to that career. A doctor would major in science, an accountant would major in math and a lawyer would major in history or political science. But, life is not always straight forward with strict definitions of what to do and how to do it.

In high school, I was in an academic program. My dream was to attend a teacher's college and major in education. I was very good in mathematics and the sciences, but I still wanted to pursue a teaching career. My college advisors in high school told me that I would be bored if I majored in education. My chemistry teacher told me that I would hate having to take all of the education courses. I was told that since I was so good with math and science, I should consider majoring in one of them. I could always pick up the education classes that I needed to get the credentials I needed to become a teacher. And so I listened to this wise advice. I attended a liberal arts college where I decided to major in biology. I loved the classes and loved the labs. But the thought that was in my mind and that kept me up at night was: "What could I do with a degree in biology?" The career counselors were not equipped to tell me all of the choices that I had with this kind of degree.

MY FURTHER EDUCATION

So, after 4 years of college, here I was still wanting to be a teacher. What should I do? I needed to explore all of my options. What did I do? I went to graduate school to get my teaching credentials. I spent one year in graduate school and took all of the education courses that I needed to take and performed my student teaching and went on to become an elementary school teacher. I entered teaching when there were very few jobs. I worked in private schools where the pay was minimal. My first school was a Montessori school. After a year of teaching, I started pursuing a certificate in the Montessori style of education. I was on my way in the career that I chose when I was five years old. I loved being a teacher. I loved helping children to learn and grow. Private schools were flexible in the curriculum and I was able to create my own. I had freedom and I spent all day with children teaching and learning. However, in the private schools, I didn't like how teachers were treated and decided to leave to pursue something else. It all came back to what people told me about my strengths, math and science. It turned out that I went to a local college and spent 6 months earning a certificate in computer programming. I studied COBOL, BAL, PL/1 and RPG. I was on my way to a new career.

MY CAREER PATH

After I received my certificate, it was time to look for a job. The only easy jobs to get were in banks, brokerage houses and insurance companies. My field of expertise in those days was capacity planning and performance reporting for big mainframes. Even though my education was in the sciences, I found myself working in several different banks and brokerage houses. I learned SAS. I created monthly reports for management and performed analyses to see if the company had enough computing power to run the business. It was during a time in the banking industry where mergers and acquisitions were the main reason that a company would grow. And so, after several years in the banking industry, my company was taken over by another bank and I found myself out of a job.

And now a word about the power of networking. My husband ran into an old friend on the streets of Manhattan who knew me and knew of an opportunity at a pharmaceutical company. She thought I would be perfect for the job. That started my career as a consultant in the life sciences industry. I had the educational background to handle the position. I started out working on a pre-clinical study. The data was on a computer tape. My first task was to read in the data, see what was there and start creating reports. Back in those days, you were just a programmer accessing data, cleaning it up, analyzing it and creating tables, listings and figures. Later on, when the industry grew in size, programmers started specializing as clinical programmers and statistical programmers. This kept me busy for many years. I worked at several pharmaceutical companies, a couple of biotechnology companies and even a CRO. I worked on pre-clinical studies, phases I through IV and outcomes research. I even went back and forth between finance and life science when the opportunity arose.

My career took an interesting turn. I have always had a passion for teaching. I used a great deal of creativity to put together lesson plans and show the children all there was to learn. I used whatever resources that I could to make the classes interesting for the children and myself. I was presented with an opportunity to stay technical but be creative at the same time. It was an opportunity to combine my skills to help teach people about technology in a creative way. The opportunity still allows me to focus on the life sciences industry, work creatively to get my message out and keep doing some programming at the same time.

CONCLUSION

For many there is a straight path to your education and career. There are specific steps that you can take to get from point A to point B. And then there are those people who think outside the box and follow a different path to get to the same place. No matter which path you take, make sure you research what you need to get where you want to be. If you need more than a bachelor's degree, then find the program that will work best for you. If you need to have a PhD, then that should be the focus of your educational path. Make sure that you take into account the experience that you need to follow your dreams. Without the education and experience, you may not be able to get to the job that you want.

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