The Problem of Feeling Overwhelmed
By Bill Carico

After graduating in 1973 from Roanoke College in Salem, VA, I was hired by the most successful computer company in history, which in those days was International Business Machines, Corp. (IBM). Even though I had no background or experience working with computers, IBM gave me an opportunity to provide software support to customers using IBM's largest computers. It worked out very well for me, and for IBM too.

Shortly after beginning work at IBM, I was surprised to learn two things:

1. My job position didn't require a college degree, meaning I could have been hired by IBM years earlier. Furthermore, IBM would have paid for me to get a college degree or a masters degree. I didn't know some companies pay for an employees higher education.

2. Hiring someone with no computer experience to work in the software support position had never been tried before. Previously, the career path for software support was to hire in as a hardware engineer and transition over after having a few years.

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The *Mastering IT* curriculum is designed to equip you to work in IT sooner than later, and to impart knowledge and wisdom that will help you in your first job interview remain with you throughout your career.

Here are some highlights of how I became wiser and knowledgeable about IT.

Math was always my best subject In high school, so in the fall of 1969, I chose math as my major when I began my freshman year at Roanoke College in Salem, VA. For the first two months I made social activities my main focus and I became a walk on player for the freshman basketball squad because they only had 9 players and needed a 10th. My grades suffered badly so I quit basketball to study more. Frankly, I wasn't motivated to learn since I know what I wanted to do with my life. The only reason I was there was because I believed what people had told me all my life, that college would prepare me to get a better paying job. Calculus was so hard I struggled just to make a C, so consequently I decided to major in physics instead of math. Why? Simply because that

same report card I made and A in physics, plus I liked the physics professor better than my math professor,

The move backfired, my first course at advanced physics I wasn't only overwhelmed, I was intimidated.   At the end of my freshman year I decided to major in business administration.

As a business major at Roanoke College (see picture), I was provided a course on "Managerial Data Processing" where I learned some basic computer concepts. This class included tabulation using punched cards. That was the extent of my exposure to computers.

My wife Patti and I eloped my senior year. She was working as a bank teller when a co-worker who was married to an IBM hardware engineer mentioned IBM had an opening for a Program Support Representative (PSR). Having no idea what a PSR was, I scurried down to IBM's Roanoke,VA branch office the next day without an appointment. The IBM branch manager was kind enough to grant me an interview.   Since I knew nothing about computers, when he asked me if I was good at logic, I wasn't sure why he was asking and I replied I had completed a Philosophy and Logic course my junior year that I enjoyed.

He looked puzzled at my reply, then proceeded to have me spend an hour taking an aptitude test.   As soon as I opened the test-question booklet, I realized that he was inquiring if I was any good at math logic.

I charged through the test with ease and had just started into the final question when the administrator entered to notify me time had expired. I asked if I could complete the question I was working on, and she said, "No, don't worry about that, no one has ever finished the test."   I felt pretty good knowing I had come within seconds of being the first to ever finish it. I felt even better when the branch manager told me I had one of the best scores he had ever seen. He said that they had already filled the opening in Roanoke, but asked permission to forward my application to the IBM Field Engineering branch office in Washington. A few weeks later I travelled to the IBM offices located at

the corner of 18th Street and K Street NW, not far from the White House. The interview went well and I began work a few months later on June 1, 1973. The job paid $10,080 annual salary which was considered a lot of money at the time.

I spent the first few months taking online self-study courses on a teletypewriter terminal when I wasn't tagging along with different senior staff as they went about their responsibilities providing software support to customers. We scurried around downtown DC and since I didn't know anything, I sat quietly in meetings and conferences at the US Departments of Commerce, Labor, Interior, the Federal Deposit Insurance Corp (FDIC), PG&E power company, the FBI, and the Federal Reserve Board of Governors. I was qualified to help carry boxes of computer memory dump printouts back to the branch office when further analysis was required.

That fall IBM sent me to their internal education center located in the same building where I worked, to attend a three month basic training school for software engineers. We were in the classroom everyday from 8am to 5pm. I was taught about IBM System 360 mainframe computers. The class began teaching programming for 5 days using the IBM Assembly Language. Those 5 days were my only formal programming training in my entire IT career.

My job providing program support was to isolate software failures in the operating system to a failing module and provide the development team for that component with whatever printouts and other documentation they needed to debug in their program.

About two weeks into the course, I felt like I was trying to drink water from a fire hose. I was getting a little bit of water but the majority of it was flowing past me. I learned a concept here and there, but felt totally lost most of the time. Nonetheless, I hung in there, but I was completely overwhelmed.

I learned later that the three month basic training class had been designed for computer hardware engineers to teach them how to do software support. Several of us in the

class were guinea pigs to see if anyone could go directly into software support.   One of those other Guinea pigs was a man named Bernie, who had grown up in the Philippine Islands as the son of a Christian missionary. He was six years older than me and joined IBM Endicott after fighting in Viet Nam, and getting a chemistry degree after being discharged. Bernie and I both loved playing basketball, and developed a spirited rivalry playing one-on-one on the playground at a nearby park.

Fast forward about two years to the spring of 1975.   I was selected to go to Chicago and bring back a 5-week training course for IBM support reps on the internals of IBM's newest and most advanced mainframe operating system ever built, called Multiple Virtual Storage (MVS).   The plan started out to send me to Sao Paulo, Brazil (see pic) and teach the class there for a year, which I agreed to do, but the IBM manager in Brazil, didn't even want to interview me for the job since I had so little experience and time on the job. Instead I was assigned to the IBM education center in DC as a temporary instructor for one year to co-teach with a seasoned IBM instructor named Bob, and a senior software and hardware engineer from the field named Joe who was nearing retirement.

My wife Patti was 6 months pregnant with our first child when we left for IBM's Chicago Education center to spend May, June, and July. They were the only education center in the world teaching MVS internals.   Turns out Bernie was there, had brought his wife Audrey who was 7 months pregnant plus they had a two year old son, Greg.   We lived in efficiency apartments inside the Loop at 21 E Chestnut St. about 10 blocks from the IBM building so we could walk to work. On weekends Bernie and I played pick up basketball games at the Navy Pier, a 3,300-foot-long pier on the Chicago shoreline of Lake Michigan (see picture), or with street gangs at a nearby church playground. Aside from that, I spent the bulk of my time reading IBM technical manuals on MVS, trying to figure out how in the world I was going to learn enough about MVS to teach IBM's top technical people

about the most advanced operating system IBM had ever built. I felt overwhelmed and was motivated by fear of failure to keep studying.

I eventually returned to DC and joined my teach team. The Washington Education Center was also located in the building at 18th and K. Over the next 11 months I taught five classes. When my assignment was completed I was given a cash award recognizing the improvements I made to the overall curriculum, which included trimming the class from 25 days to 19, and turning out better prepared support reps in the shorter class.

I was the only instructor who lasted for all 5 classes. Bob couldn't cut it, neither could Joe. After the second class ended two people working in the field were brought in to replace them.   As you may have guessed, one was Bernie, the other was a senior software support rep named Ray. By the way, I had the satisfaction of training the IBMer than ended up teaching the class in Brazil.

How did I cover so much ground professionally and accomplish so much in such a short period of time? How did I survive teaching when two technical veterans with decades of computer experience failed? I had figured out several things regarding my approach to learning and my approach to life and faith that allowed me to succeed where others failed.   Regarding my approach to learning, I quickly figured out an IT person won't be able to know everything. The successful person needs to know how to find the right answers. It helps a lot if you can remain more knowledgeable than your co-workers. The keys are to maximize what you can know and learn how to be comfortable with what you don't know. I'll show you the essence behind the principles that makes learning work.

The other principles for succeeding in IT are easy to practice and anyone can benefit from applying them. How it all works will be explained in detail in the Mastering IT curriculum so our students can excel in their own IT careers.

After working at IBM for only three years, I decided to escape their grasp before I got locked in by the golden handcuffs of good pay and benefits. Though my career at IBM looked very bright, and I dearly loved my coworkers who all thought I was making a huge mistake leaving IBM, I saw a downside. The standing joke was that IBM stood for I've Been Moved.   It was common for those on IBM's fast track to become top executives to move every few years to different metropolitan areas, which simply didn't
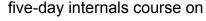
appeal to me. Headquarters was in White Plains, New York.   I already hated my commute from my home in Annandale, VA into work in DC, moving to metropolitan New York had no appeal to me.   In July of 1976 I resigned my position at IBM and moved to Austin, TX, and joined a small database software company called MRI systems whose System 2000. The Austin housing market was much more affordable than DC. It was a plus that Patti's parents and two sisters also lived there. Just after resigning we learned Patti was expecting our second child, so with two young kids, I learned about the world of databases and about independent software companies, knowing almost nothing prior about either. We battled IBM and a few other companies in the database market. One of the smaller competitors in that space was a start up company named Oracle, which was launched in June of 1977 in Santa Clara by Larry Ellison, a friend of MRI's chief technologist. Larry Ellision was a two-time college dropout who grew up in Chicago.

In 1979 MRI became chip-maker Intel Corporation's first acquisition. Two years later, at age 30, I resigned along with some other executives. We didn't like how the hardware giant was running our software business into the ground and how the Santa Clara based executives, who knew absolutely nothing about large systems software, wouldn't listen to us. I left without a plan and with only two-months salary saved. I quickly convinced a software buddy to partner up, and we agreed he would create software products we could sell, and I would generate some revenue immediately teaching series of MVS classes for customers.

We contracted to teach some classes in Calgary, Canada, but six months he got a great job offer and went to work at BMC Software. While teaching those first seminars in Calgary I met a software developer named Micky Wei who had written a product to enhance System 2000. I marketed it under ACTS and sold it to the US Army who is still using 36 years later.

In 1985 Bernie left IBM and came to work with me at ACTS and we co-taught MVS classes in the US and Canada.   That same year we committed to develop and teach a five-day internals course on

telecommunications network to the technical team of a subsidiary of Hitachi based in Johannesburg, South Africa (see pic). Bernie did most of the development but left ACTS unexpectedly a year later and moved to Kansas City to work for a large consulting firm. I had to step in and teach the course, and once again I was overwhelmed by the learning curve required. However, I survived by applying the principles learned while teaching MVS. In the years since I have made 13 trips to South Africa, I was there on Feb. 11, 1991, the date Nelson Mandela, leader of the movement to end South African apartheid, was released from prison after 27 years.

Regarding Intel, they have since acquired over 300 companies. They sold System 2000 to software company Sas Institute a few years after I left. Regarding Larry Ellison, in 2014, Larry Ellison, was recognized by Bloomberg News as the top earning CEO of the decade at $1.84 Billon. In 2019 his net worth was estimated at $68 Billion. Bernie is retired and he and Aundrey still lives in Kansas City. Mickey Wei is retired and still lives in Calgary. The person who co-founded ACTS with me, has remained a friend all these years. Before retiring from BMC, he became a product author there and enjoyed a rich and rewarding career. I suspect things might have turned out very differently had I spent a year teaching for IBM in Brazil instead of Washington, DC.

During the 1990's, I was hired by both IBM and one of its largest competitors, Hewlett Packard (HP), to develop IT training materials for them.

Ironically, what I taught contributed significantly to IBM benefit. Over a 10 year span IBM paid me to speak at over 50 events, at customer gatherings all over the world. This included visits to Shainghai, Moscow, Mexico City, Sao Paulo (finally), Toronto, many European cities, and 20 US cities. Why would IBM want me in front of their customers? I had done research is to multi-million-dollar IT fiascoes and documented how 14 organizations collectively squandered a combined $2.8 billion dollars listening to bad technology advice given them by billionaires Larry Ellison, Bill Gates, and Michael Dell as well as Hewlett Packard and Sun Microsystems telling them they could. For example, in Mastering IT students will learn how under the guidance of a person or company from the previous sentence, one company squandered $200 million trying to launch a new solution which only produced 5% of its promised benefits. They switched to another solution provider and repeated the same mistake, squandering another $200 million in the process. Rather than reap their promised rewards to transform their own customer service operations, this large company paid $400 million for an education in

who they can't trust. What happened is not an isolated instance, and Mastering IT students will know exactly what went wrong and how to prevent it.

I allowed HP to tape and replay 5 days of my lectures on enterprise computing all over the world to educate their workforce selling products to enterprise customers. The following year I visited HP and their work area for the group I trained displayed a poster that read, "We've bagged a $Billion" referring to winning new business they typically lost to IBM. How all this came about, and the insights I learned, including my investigative techniques, will be revealed to the future Masters of IT who enroll learn about industry best practices from real world case studies based on my experiences and those of my distinguished colleagues.

As you can see from my experience teaching in the IBM Ed Center, tech leaders must have on their own training departments to train employees and customers, because the industry moves too fast to expect higher institutes of learning to keep curricula current or to retain professors with sufficient knowledge to teach. I had first-hand experience working with a number of excellent education departments including IBM, Texas Instruments, and Hewlett Packard.

The fact remains that countless colleges and universities are offering online degree packages for a few IT disciplines, but the cheapest is about $60,000 and take years, and they only address a subset of the topics covered in Mastering IT. Their offerings commonly require students to learn how to program unnecessarily which makes getting an IT undesirable for a large number of people. The struggle of Universities keep up with IT education is the main reason there are over a million well-paying tech jobs in the USA that will go unfulfilled this year and for the foreseeable future. Our Mastering IT program is designed to change all that. Come join us, let us help you get started on your adventure, and start producing income sooner.

Please use the ABOUT link on this site to meet my colleagues. These people have had amazing careers and they are the ones who I have turned to whenever I didn't know the answer. Please also take a moment and view our Client List of the over 1800 companies ACTS has served.