

About the Author

I come from a family where success was expected. One grandfather, a doctor, was nominated for the governorship of Wisconsin. The other was a well-known architect in Milwaukee of whom a book was written; *A God-Given Talent*. My father was also a successful architect. As an athlete, he held the state high school record for the mile run for many years. My mother was a magna cum laude college graduate and the president of the alumni association. Her brother was made an honorary member of the British Empire by King George VI for his distinguished service in WWII.

I am the second oldest of eleven children. Unlike most other children in the family, in my youth, I did not work or study any harder than necessary to just get by. I was a daydreamer. I was also, and largely still am, a procrastinator. I grew up in a home in which the family was together but not emotionally close. It was a family of reason, not emotion. That seemed to be fine, as the family was financially well off, and we had many good things. My young life taught me to close out my emotions and feelings. It didn't help that I thought everyone else should be able to do the same.

My parents were honest, and my father was religious. Although I was generally well-behaved as a child, I didn't like being told what to do. I earned some good spankings. They just taught me to be more careful when doing what I wasn't supposed to do.

We lived in a suburb of Milwaukee during the school year. In the summer, after I turned eight, we spent summers in the country at an old farmstead with a number of outbuildings, a barn and cows, a small lake, and a river and woods nearby. Until it was remodeled, the house had all the old farmhouse amenities — outhouse, outdoor hand water pump, hand crank party-line phone, short door frames, mice, lots of flies, dirt floor in the basement, bats in the attic, open window air-conditioning, and no T.V. We did have dishwashers — us. Fortunately, we did have toilet paper. After the house was remodeled, it was still outdated. However, we never thought about the conditions as there was so much to do. It was great.

There was a big yard and gardening work to be done, but there was also fishing, hunting and trapping, skiing, skating, and even helping the neighboring farmer who rented the farmland on the property. By the age of twelve, I was driving a tractor, although I won't say how well. I didn't take instructions well. But spending so much time in summer and on weekends in the country negatively impacted my social skills.

I spent the first two years of college in St. Louis, where I lettered in swimming and had my first girlfriend and first kiss. On the side, I also played sandlot tackle football and learned more about playing pool and Ping-Pong than I learned from my books. I was fortunate that I could get Cs & Bs without much, if any, studying. I also learned what a really bad hangover was.

After two years, I transferred to Marquette University, from which I graduated in civil engineering. I began to study in my junior year. Before I graduated, I was elected president of the civil engineering honorary fraternity and was also elected to the university student council. After graduation, I began my engineering career at \$4.65/ hour in 1964.

I eventually married a girl who grew up on a farm about five miles from our summer home. For various reasons, I rationally thought she would make a good wife. Looking back, I wasn't ready for marriage. I wasn't capable of real love at that time, as you will discover.

True to the path of our upbringing, we got married, bought a house, and started a family. I'd had things so good to that point I never had to think seriously about life. I was not ambitious and had no goals other than to get more of the good life, which I had come to believe would make me a happy person.

A few years later I started my own structural engineering business after quitting possibly the best job I could ever get. I quit because I didn't like being told what to do. I had to either do what I was told or do something on my own. There was no way I was going to do just what I was told. I was fortunate the business survived. We lived on almost nothing for the first year. We eventually had four sons, and ten years later, a daughter. I tried to be a good father based on what I had learned from my father.

The marriage itself seemed okay until after my wife's father died. Visits to her family mostly stopped and, as our close friends moved out of town, her real companionship disappeared. Me being strictly rational ensured that I was no help. I never knew the

importance of hugs and kisses, how to just be close, how to say I love you, or how to give emotional support to my wife or my children. For the most part, I just did what I rationally thought best, and considered emotions a detriment.

After the death of our youngest son at thirteen years old, my wife wanted a divorce; I was rationally devastated. It did not fit what I believed should ever happen to me. After a period of self-pity, I realized that I needed to get away from feeling sorry for myself. So, I took up volunteer work at a nursing home and began doing other things to get me thinking beyond my problems. At the same time, I began my search for a good understanding of life.

I got remarried four years later, the business grew, and life was good for over two decades. When my second wife developed Alzheimer's, I spent some time as a caregiver, until my age and physical ability made that impossible. Her death and my role as a caretaker took me back to my search for a good understanding of life.

What I discovered humbled me. I realized that despite understanding that I needed to open my mind to new thinking. I was still stuck on some of my old thinking and also on several of my old subconscious beliefs. That realization and a sincere effort to modify my thinking and beliefs have brought me inner peace and contentment, even though I am on my third bout of cancer.

As an engineer, I have been fortunate to work on some nationally known building projects. I was a guest speaker at various seminars and engineering societies, including the Chicago High Rise Committee. Just before I retired, I was a structural peer review expert for New York City, for the new Central Park Police Station. Perhaps I did have the success expected of me, but it never made me feel any better about myself.

There is much more to my life. And although it may seem paradoxical, the tragedies and crises in my life have been important to me. Sometimes things have to be learned the hard way to make an impression on the mind. In my case, they caused me to finally open my mind to new ideas and move forward with my life.

Opening up my mind to new thinking has been most important to attaining a sense of inner contentment and happiness with life. I wish I had done so earlier. One of the main reasons for this book is to help others avoid the same mistakes I made. I wish I had read this book when I was young. Or better yet, I wish my parents had.

Before proceeding into the meat of this book, I have to admit that my thinking about the possibility of life after death increased with a specific event at which I was present — during the last moments of our son Andrew’s life. He had been listless for hours with no strength left. He had been given the Last Rites and we thought he might expire shortly. Unexpectedly, he wanted to sit up. After his mother helped him sit up, he reached higher and said: “They’re coming to get me!” The next moment, he died.

Engineering and Life

Engineering is described in the *New World Dictionary* as “the science concerned with putting scientific knowledge to practical uses.

Knowledge itself doesn't mean much without being of some practical use. Scientific concepts, by themselves, may not mean much. But, when creatively put together, they can lead to practical use. Putting ideas and information together is what real engineering is all about.

An example is the bow and arrow. Spears could only be thrown a short distance. But someone, possibly after being hit in the face by branches while walking close behind another person, realized there was spring energy in bent wood, and that energy could make small spears fly greater distances.

The basic principle of the lever — that a small force moved a long distance could move a large load a short distance - eventually brought about the pulley and the building of the ancient world wonders.

However, the development of these concepts was not all that simple. It should also be realized that although the bow was a major step, arrows did not fly straight until someone thought to add feathers to the back. And likewise, the block and tackle was not a simple step from the concept of the lever.

Surprisingly, many of the big advancements in various fields of endeavor have not been made by highly educated people. Many were made by less educated people who became well-known by combining knowledge, common sense, and imagination to bring us new products and a better understanding of how things work, as well as how they can work together.

Benjamin Franklin only had two years of formal education before dropping out of school at the age of ten. Alexander Graham Bell dropped out of school at the age of fifteen. Michael Faraday, considered to be one of the greatest scientists of all time, had no formal education.

George Mendel, the man who is referred to as “the father of genetics” became a priest after high school. The Wright brothers never finished high school. Srinivas Ramanujan, one of the greatest mathematicians of all time, had no education in mathematics. Leonardo da Vinci was home-educated in elementary reading, writing, and math. Andrew Carnegie, only formally educated until the age of thirteen, became the world’s richest person. He did it because he could envision what steel was capable of and began the steel industry.

Once the basics, of what a person is trying to achieve, are well understood, the advancement a person can make in any field requires only that person’s imagination, analysis, common sense, perseverance, and sometimes the guts to challenge conventional thinking. A person who stays within the limits of accepted knowledge and understanding will never amount to more than average. These days, engineers who design projects based on what they have been taught, can be replaced by a computer. Real engineering is all about understanding the basics and opening the mind to new ideas of how things can work together.

There is not much history known about Christopher Columbus or his schooling. But there is a story (most likely fictitious) that after discovering the New World and getting back to Spain, he was told by other ship captains they could have done the same. At that point, he called his detractors together and challenged them to set an egg on end. After hours of trying, they gave up and challenged Christopher to do it. He took an egg and brought it down hard enough on the table to flatten the end slightly, and the egg stood.

At first, the detractors said he broke the egg. He replied that he never said anything about the egg not being cracked. The detractors then said they could have done the same if they had known that fact. Columbus replied that they had their chance, but he was the only one smart enough to consider doing it. True story or not, this is what would be referred to as creative thinking.

Although engineering is thought of as putting science to practical use, it could also be thought of in other ways. Although this book does not address an engineering subject, it can also be thought of as a work of engineering. The person who develops a good understanding of the basics of **any subject**, and then applies that understanding in a practical and positive creative way is effectively doing a form of engineering. Unfortunately, most of us rely on what others say, what others do, and on products industry provides. Are you one of those

many sheep? Or are you willing to open your mind and imagination and move beyond the flock?

Do some happiness engineering! Grow in knowledge! And put that knowledge to practical use! You can start by opening your mind to what is presented in this book. Also, seek other new information. Decide for yourself what is important. Ponder the meaning of what makes sense to you. And then **apply** whatever understanding comes to you.

Something else to realize is there is a difference between good engineering and scientific hypotheses. Good engineering requires that any potential anomalies, contradictory evidence, or other reasons to suspect that there may be a problem, must be fully resolved before an engineering project moves forward. Science, in arriving at a hypothesis, can, and sometimes does, overlook, and omit information that would preclude coming to a hypothesis.

As an engineer, I cannot overlook information pertinent to whatever project I am working on. For that reason, in writing this book, I have included facts and information that are often overlooked. Many times, facts and information are overlooked because they are not well-known. Other times they are disregarded because they conflict with conventional thought or with already-formed opinions. But it is not just engineers who need to think beyond what they are taught. We all need to. If we don't, we are not much different than environmentally programmed organic androids.

The Difference between Fiction and Reality – Fiction has to make sense. – Tom Clancy

Part I

What is Real?

As you read part one, it will become obvious that what we believe may not be as real or true as we think. We can be misled by not only what we are taught, but also by the way the mind works and by what we choose to believe. We can also be misled by science, which sometimes discards and overlooks contradictory evidence in order to come to a hypothesis or to protect an existing hypothesis. But the most challenging thing to believe is what constitutes physical reality. When it comes to what is important to know, we need to realize that we haven't been told the whole story.

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