



Thoughts from Linda:  
Everything All At Once

Bill Nye  
2017

Bill Nye, 'The Science Guy,' wrote this book as he says, to help us all “unleash our inner nerd, tap into radical curiosity and solve any problem.” It is a fun book to read as he makes jokes throughout (I laughed out loud in a few spots!) and gives interesting examples to illustrate his points, taken from his own life experiences. It is an homage to the scientific method, critical thinking, and the power of knowledge. It is also a strong invitation, even an exhortation to all of us to participate in changing the world. This is a book of big ideas and bold thinking. It moves fast and is filled with stories as he uses his life as a case study in many ways. I think it is a very important book for everyone to explore.

I am intrigued with one of his key points and illustrations made toward the end of the book, as he notes the power of the number 30,000. This number of days would be a generous lifetime of 82 years and 7 weeks (approximately the life expectancy of a Japanese today.) As he reflects on this number, he mentions that the Rose Bowl is a stadium that holds some 90,000 spectators. Interestingly, as he points out, if we sat in (or were placed in) a different seat there for each day of our lives, we'd only sit in 1/3 of that stadium. That puts the number into perspective for sure! So, he notes that this number can make us feel insignificant because it is so modest. However, at the same time, he notes, “how much information and experience you can accumulate, how many people you can learn from and influence, and especially how many actions you can take” during these 30,000 days. In this way, we all have many opportunities to make a “big mark on our small planet.” This book offers lessons on how to do just that.

Bill Nye was born in 1955 in Washington, D. C. and is best known as “The Science Guy” for his role in hosting a science television program from 1993 to 1998. He worked as a mechanical engineer early in his career for Boeing and invented a part used on the 747

aircraft. He left Boeing in 1986 to pursue comedy as a stand-up comic, writing and performing after realizing how similar he was to comedian Steve Martin in many ways. Mixing humor and science offer a unique combination and show up in this book, providing a most readable and enjoyable experience while helping us to learn an enormous amount of information at the same time. The experience of reading this book is a little like the proverbial *drinking from a fire hose* example, but it is fun and definitely worth the rapid flow of information.

Originally, Bill Nye had aspirations of being the heir to *Mr. Wizard*, a show starring Don Herbert. The latter wrote and performed scientific experiments every Saturday morning in a 30-minute program that ran on television from 1951-1965. Nye wrote and appeared in scientific shows, and finally, his own program, *Bill Nye the Science Guy*, emerged in Seattle on PBS and launched him into the national arena. This show was nominated for 23 Emmys and awarded 19, including one for himself as an outstanding performer. He has been a science educator, appearing on many programs and speaking regularly at scientific gatherings ever since. He tells stories in the book about his parents and growing up first in public school and then transferring to the Sidwell school where he fell in love with physics in the 11th grade, and the love of science took hold.

His parents were interesting themselves. His Mom was one of the Goucher Girls--a codebreaker group during WWII, and his Dad served in the Pacific, was captured and survived a 4-year Japanese POW camp experience. His Dad was a scientifically oriented person who lived without electricity or watches during this captivity, learning how to tell time using the shadow of a shovel handle, spurring a passion for sundials that he would follow all his life.

Nye became the CEO of The Planetary Society and has written two other bestsellers: *Undeniable* in 2014 and *Unstoppable: Harnessing Science to Change the World* in 2015.

This book is divided into three main parts: *Principles for Nerd Living*, *Nerd Ideas into Nerd Actions*, and *How to Change the World*. His recipe for “doing everything all at once” includes:

Objective: Change the World

Guide:

1. EVERYONE you'll ever meet knows something you DON'T.
2. GOOD ENGINEERING invites right use.
3. Constraints provide OPPORTUNITIES.
4. Be part of the START.
5. Think COSMICALLY: act LOCALLY
6. QUESTION before you BELIEVE.
7. CHANGE YOUR MIND when you need to.
8. Be OPTIMISTIC; be RESPONSIBLE; be PERSISTENT.

Here are a few examples of the wisdom of this book that I loved, which also are told in the most interesting (and sometimes charmingly quirky) ways:

1. Learn how he changed his mind about GMO foods, doing a complete reversal of his opinions and judgment. This example is quite illustrative of a scientist approaching a topic with a truly open mind.
2. Explore his love affair with the slide rule where I learned the origin of the word 'cursor' and so much more, like the story of the Anglican cleric and nerd cult hero, William Oughtred, who invented it in 1622.
3. What does it mean to be a 'nerd,' and what is the value of us increasing our true nerdiness? How can true nerdiness prevent misinformation and contribute to a better society?
4. What did he learn as a boy scout that influenced his life?
5. What is his vision for universal public service in the US, and why does he think that would solve so many issues?
6. How does he see the merging of comedy and science in his life, and what advantages does he see in world views based on that unique combination?
7. When did we in the Anthropocene Era begin to change the planet? (Anthropocene is from the Greek, meaning 'the human era.')
8. Could we really drive into outer space in a few hours if we could physically drive straight up in our car? Is our atmosphere that fragile?

9. What was his “crazy-making moment” at General Motors when he worked as a consultant there, and how dangerous is it to think small? How did NASA show some of these same tendencies?
10. Why does he continue to pursue goals at The Planetary Society of traveling to Mars and beyond, and how does this work help Change the World?

You will appreciate the additional stories of his interactions with Carl Sagan, *The Big Bang Theory* television series, and his opportunity to meet with Stephen Hawking.

Bill Nye has a big voice and big goals. I love his energy—and can feel it just in reading this book—and hope you will too.

Here are a few of his concluding exhortations he offers to all of us: “We all have to be politically engaged. Pay attention to the news and our leaders’ views. Find like-minded people and work with them. Find people you disagree with and work to understand them. They know somethings that you don’t. Reject tribalism. Volunteer for projects and causes you believe in. Entropy constrains our time here on Earth, so find inspiration in that constraint. Nerds need to guide our planet. That’s your role in making things better.” And, finally, “treat others with respect.”

He is a great guy, and this is a strong book to take on. I highly recommend it.