

MAXIM BUDYANSKY

Maxim Budyansky is the chief technology officer and a co-founder of Avitus Orthopaedics, a Connecticut-based medical device start-up. He won first place in ASME's 2010 Old Guard Oral Presentation competition for a talk about his senior design project. His graduate school project team developed an affordable maternal- and newborn-screening kit for the developing world, and won a \$10,000 prize in a video competition sponsored by ABC News and the Duke Global Health Institute.

I am an entrepreneur with very little free time, but I still enjoy reading. I like to learn about different ways of thinking as in *The Four Agreements: A Practical Guide to Personal Freedom* by Don Miguel Ruiz and *Become What You Are* by Alan W. Watts. Also self-improvement books like Carnegie's *How to Win Friends and Influence People*. Every human being should read that book.

My master's program in bioengineering innovation and design at Johns Hopkins combined engineering, medicine, and business. I realized then that I enjoyed the business side of developing products. That requires creativity and innovation, too.

One of the program's professors recommended a new book or two for every course. One was *The Innovator's Dilemma* by Clayton M. Christensen. The Hopkins program preaches and preaches about understanding the need.

As an engineer, you might think you know what something needs to be, but you're not the user. This book explains how important it is to get things into users' hands as soon as possible.

Another book I read is *Where Good Ideas Come From: The Natural History of Innovation* by Steven Johnson. It presents ideas we don't much think about. Like how important working environments are to innovative thinking and to generating good ideas. And how important timing is. If YouTube had come out ten years earlier, it would have been a massive failure because the Internet and the hardware and software infrastructure just didn't exist.

Creation, in general, is one of my passions, whether it's technology, art, or music. As a kid I had a whole world of LEGOs and was always building something with them. I absolutely love *Invention by Design: How Engineers Get From*



Thought to Thing by Henry Petroski. It has accounts of what I think are marvels of creation. The craziest thing is that these are all objects we take for granted, but are really ingenious—the zipper, the aluminum can, the paper clip.

They are so incredible because they're so simple to the user. But simple doesn't mean easy. Simple sometimes is very difficult to develop. You don't even think of these as inventions, and yet so much work went into getting them where they are. Like how much to etch the top of a soda can so it is easy to open, yet won't burst under pressure. Every engineer, and especially every designer, should read this book. It makes you appreciate the world we live in.