My Middle Child, Joshua, Is Forever Creating Wild Scenarios and Proposing Futuristic Inventions. My latest idea is to scan, record, and store the DNA of all living creatures so life can be recreated in the event of some cataclysmic disaster (actually, this idea isn’t all that different from the Svalbard Global Seed Vault in Norway, which seeks to preserve seed samples from all the world’s plants in case of, you guessed it, global disaster).

I love Josh’s creative thinking and encourage these fantastic ideas in the hope that one day he’ll have an “aha” moment that will lead to something incredible.

I recently listened to a keynote talk by Guy Kawasaki, a leading futurist and one of the people responsible for the beginning of the Age of Macintosh at Apple. He told the story of ice, of how around the 1860s ice storage facilities were built so that winter ice from rivers, lakes and mountains could be preserved and sold all year. And how those companies gave way around the 1900s to companies that manufactured their own ice. And those companies disappeared with the creation of refrigerators. His point was that none of the companies that sold lake ice evolved into companies that made their own ice. And none of the companies that made their own ice evolved into companies that manufactured refrigerators. They failed to make the leap from ice 1.0 to Ice 2.0 to Ice 3.0.

According to Kawasaki, all industries go through these changes but few companies make the leap (think about buggy manufacturers failure to become auto manufactures). The problem is they don’t see the change coming and so miss the opportunity to stay leaders.

I wondered if the same principles held true for the design and construction industry. If you look at a building from the 1900s and compare it to a building constructed in 2010, there are amazing differences—everything from the strength of the steel in the columns to the way the steel is connected (rivets gave way to bolts and welding) to the way computers have entered the entire process from design to fabrication. But all of these changes seem evolutionary rather than revolutionary and most design and construction companies evolved with the changes.

A couple of decades ago, I thought something like the ATLSS Connection would change both the way buildings were designed and the way they were constructed. But it never proved practical. Today I wonder if robotics will be the changing force—but again, as the price drops this might be more evolutionary than revolutionary.

So is there a potential sea change out there? Will BIM lead to greater project collaboration, early involvement by subcontractors, and an increase in design-build? Will that be the tipping point that changes the nature of the design and construction industry? And will your firm be able to make the leap into that new world?

Preparing for change is always difficult. Start by reading, not just industry publications such as this one, but books by people like Guy Kawasaki. Use some of the tools now available to make connections; tools like AISC’s new SteelTools website (www.steeltools.org) where you can discuss the industry, download useful utilities generated by users rather than AISC, and expand your network. Make good use of online learning tools (start with AISC’s webinars and other eLearning opportunities but also look outside the industry to see what others are doing). And most of all, don’t neglect in-person opportunities. Attend your local fabricator or engineering association meetings. Talk with people in your community (volunteer and you’ll meet a broad range of people with a fascinating array of perspectives). Go to this year’s NASCC: The Steel Conference (record-breaking attendance is expected due to co-location of two other major conferences; visit www.aisc.org/nascc for more information).

Mostly, know that change is coming and be ready to and willing to change.