



CHANGE IN OUR SOCIETY... CHANGE IN OUR CAREERS

By Kimo Look

The world is changing—and fast!

This is the first of several articles about the impact of world change on our careers. Yes...for the last decade we have heard, “The world is changing at an unprecedented rate.” (We’ve heard this so often it has become a cliché.) Though it is probably true, the real question is, “So what does it really mean to me?” and, “How will this impact my life, my career?”

Here is what I see...

We often hear we are in an Information Revolution. But what does that mean? If we use the word ‘Revolution’ as we do in the Agricultural or Industrial Revolutions, it means profoundly changing economies, products, services, and industry structure. It means changing the way we do our jobs. This would be true if the Information Revolution evolves as the Industrial Revolution evolved. Interestingly, there are a surprising number of similarities between the early years of this Information Revolution and that of the first fifty years of the Industrial Revolution.

What the Industrial Revolution did

The Industrial Revolution “mechanized” the production of goods, tremendously increasing output and decreasing cost. Eli Whitney invented the cotton gin, the Industrial Revolution mechanized it with steam power, the price of cotton textiles fell by 90 percent, and production increased 150-fold. Today it’s the computer that has changed how we inventory, distribute, and sell goods causing the prices we pay at Costco to plummet to a fraction of what we paid 20 years ago.

In the early Industrial Revolution, the steam engine was the center-stage technological wonder. It powered factories, creating industry. It led to the steam locomotive that mobilized people, opening the West. Though the steam engine began that revolution, it soon took a back seat to new technology. Electric telegraphy and photography replaced (and had little, if anything, to do with) steam or steam engines. Public health became a major industry, with pure water and sewers making the city a more healthful habitat than the countryside for the first time.

Correspondingly, computers were hot items in early ‘80s. Though its processing power has increased 100 fold, its awe has faded. Now, it’s the Internet and the changes it brings!

The Industrial Revolution gave us postal service, journalism, and banking—to name just a few benefits. These had even less to do with the steam engine and technology, yet they came to dominate industry and economics! The question is what will the Information Revolution bring?



What's next and how will this affect our careers in civil engineering?

The truth is: No one knows. Just as contemporaries of the steam engine could hardly have anticipated the telegraph and photography, we remain equally uncertain of what lies ahead.

However, if you are as young as I am, you will remember that—not that far back—we had ink on Mylar, typing pools, and a sole computer that 10 people in the office shared. You will remember when the design of a building or highway took twenty highly skilled draftsmen months to draft. Now with CAD programs, a couple of draftsmen bang it out in days, at a tiny fraction of the cost.

So where is civil engineer going...Who can know?

What you should do

We must face this uncertainty head on. It can have a huge impact on our lives and our careers. Let's track it and understand the issues that matter to us and to our career.

How do we do it?

Become aware of the issues and watch for change. Network and discuss change with your fellow professionals. Become and stay involved in professional societies. (Where better to stay current? It is the goal of professional societies to track developments in civil engineering!)

Check out the Engineering Community pages on our website. Join the Engineering Network and keep on top of all the happenings in our industry.

Let's watch this revolution as it unfolds before us. Even better, let's become part of it and have a say in how it will affect our careers and the way in which we make our living.

Please read next article... "Job Security- where did it go?"