SNG-Accelerating rate of change scary-12-5-16

Accelerating rate of change scary

By Jim Nowlan

This column is a bit afield from my typical fare, a fill-in until a couple of Illinois-focused pieces jell.

For most of human history, there has been no change from generation to generation. Peasants tilled their fields across the centuries with the same primitive tools. Their masters carried on "economic development" (warfare) unabated.

The rate of change over time was flat, scraping along the bottom of the chart.

Real change began in the Golden Age of 5th Century BC Greece, I would say, followed in the 700s AD or so with Islamic and Tang Dynasty China scientific advances. Then followed the 14th Century Renaissance and later the Scientific Method and Industrial Revolution.

The 20th Century saw the rate of change catapult sharply upward. Yet the change we have seen in recent years in artificial intelligence, cyber communication and genetic manipulation have been at a breath-taking, exhilarating and sobering, almost incomprehensible rate that has the line on the chart headed almost straight up.

In the 19th Century, Mendel's path-breaking experiments with the inheritance of characteristics languished in obscurity for decades before being recognized; Darwin delayed publication of his work on evolution for many years.

Today, in contrast, boundless scientific findings from hundreds of thousands of scientists carom about laboratories around the globe via digital journals, and via dense personal networks of scientists, in split-second time.

Can we mostly rather simple humans handle the changes?

Do you have a robotic vacuum sweeper yet; how about a robotic valet?

How will we absorb truck drivers to be replaced by driverless

rigs, as if we don't have enough trouble absorbing high school-educated workers today?

Are you ready for cyber-warfare? How will you handle life without electric power and digital communication?

The super-powers are already testing cyber-war. Russia and China relentlessly improve their capabilities, testing them with hacking forays around the globe.

A few years ago, the U.S. and Israel successfully sent a digital virus that crippled Iran's nuclear processing capacity.

Most daunting of all, to me anyway, is the looming creation, already being experimented with in China, of designer humans via the cutting, splicing, inserting of DNA inside embryonic stem cells.

I just finished "The Gene," by brilliant medical scientist Siddhartha Mukherjee, author of the best-seller a few years back about cancer ("The Emperor of All Maladies").

The impressively well-read Mukherjee, now at Columbia University, takes readers on a journey from Aristotle (don't we all start there) to the scary present of genetic manipulation.

Replacing mutated disease-causing genes for all time would, of course, be fortuitous achievements. But humans won't stop there.

We will want to design smarter, more attractive offspring. Maybe such could be solely benign, yet the outcomes might just as likely be as grotesque as Hitler's efforts to build a master race.

Scientific change is progressing much, much faster than social evolution.

In "The Better Angels of Our Nature," Harvard psychologist Steven Pinker observes persuasively that the world is much less violent today than it has been throughout history.

Yet zoologist Desmond Morris captures reality neatly by noting that we humans are not "fallen angels" to be lifted somehow back to perfection, but instead we are "the risen ape," evolving slowly.

What to do?

Mukherjee wrings his hands over what might be wrought by science through genetic engineering if we act before we think, as he worries the Chinese are doing. He proposes instead a go-slow manifesto.

I recall reading about the World Parliament of Religions held in conjunction with the Chicago World's Columbian Exposition of 1893. The confab brought together leaders of all religions to seek common ground in behalf of the world's societies.

We need another such gathering for both eminent scientists as well as leaders of the world's path-breaking scientific nations.

We must review whither we are tending, and of what might be done to focus on disease elimination and not on unfettered human design.

I am not confident we have evolved the foresight to do so. Hang on for the ride.