This brief essay will look at the phenomenon of true genius in recorded history. It is not my intention to create an encyclopedia of the brilliant, but rather to highlight how culture and genius influence each other.

Throughout history only a few people have been recognized by their local culture as geniuses. Some were celebrated from their service to social order (Aristotle, and Leonardo). Others were considered threats, up to the point where they were murdered (Hypatia, stoned to death in ancient Alexandria; and Giordano Bruno, burned at the stake in Italy in 1600).

Many of history’s almost-geniuses have been socially lucky bright people with excellent educations and career opportunities in societies where most people were unable to read. In the contemporary world such people populate upper management, and upper academia. At the same time, inside today’s lowest scheduled caste of India, and among the poorest peasants in China, are hidden significant numbers of true genetic geniuses.

Think of true genius as like a form of genetic mutation. In the body few genes that mutate survive, as our DNA and RNA are very conservative. This explains why most “social gene pools” eliminate or contain genius deviance before its value can be understood. It has been said in Japan that “the nail that sticks up will be hammered down,” (“出る釘は打たれる”). A few genetic deviations do survive despite social conservatism, and these can transform or influence what follows – one way true progress is made.

Genius is emphatically not just a very high score on an IQ test. The origin of IQ testing goes back to 19th century France, where Binet and Simon were trying to evaluate individuals with below normal intelligence to better help them. In today’s meritocratic world IQ is big bogus business. Supposedly, you are born with a specific potential, and you are either going to maximize that potential or not. Hoping to better yourself beyond your innate potential is not part of the genetic testing game.
Much of the previous paragraph is either ironic or simply wrong. For example, one of the 19th century’s greatest polymaths was Henri Poincaré. He is generally recognized to have had a real IQ in the 195 range. He made major contributions to several fields, and even postulated gravitational waves. He allegedly tested at IQ 35. One of the most famous string theorists of the 20th century was Richard Feynman. His brilliance was celebrated among his peers. He actually tested at IQ 125. Now we have an American president who proudly advertises himself as a “stable genius.”

There are children who test as super brilliant, only to live adult lives without distinction. There are also children who have been considered near normal on the bell curve, only to flower over several decades. It is easy to train a fairly bright four-year-old to test at the six-year-old level, which will give an IQ of 150. Helicopter parents are generally aware of this trick.

An emerging phenomenon is human/machine interfacing. This nexus is not the same as the much anticipated and hyped “singularity,” where man and machine meld into a new android organism. Human/machine data interaction is an accelerating phenomenon of the Internet, and it represents one of the greatest achievements of our species. Eventually, the emergence of philosophically conscious computer life forms, the comphumans, will join humans in the next stage of evolution. All of this eruptive brilliance could and should happen within the next one hundred years.

[The only “fly in the ointment” is our possibly innate killer-ape itch to create weapons of global destruction that could yield no animal alive on dry land more intelligent than a rat. At that time the alien craft surveying our gentle globe (if they really exist) will direct their fleet to land and settle without military resistance Earth’s newly depopulated continents.]

All non-traditional societies incrementally and qualitatively change within “human time.” Some extreme events, such as the injection of 16th century Europeans and their germs into America, have disrupted vast regions, eventually settling human society into a new norm. This particular hemispheric clash of cultures displayed a form of social evolution called punctuated equilibrium. Individual brilliance played little role in that great social drama. Another type of “intelligence” – organized greed and religious bigotry – was on full display and in charge.

Cultural change often comes from wars of invasion (Romans, Arabs, Mongols), pestilence (the Black Death), and technological innovation (new trade routes, and the Industrial Revolution). Before the past two centuries change was often very slow in human time. In contrast, we living moderns
experience significant change within decades (TV, the Internet, smart phones, satellites, and gene therapies).

Human nature relatively doesn’t change, since natural genetic evolution is orders of magnitude slower than technological change. We are essentially Stone Age people who walked on the Moon. Individual geniuses may have singular minds, in a way, but their nimble minds always exist within the intellectual AND systemic culture of their time. The ancient Athenian agora produced ideas just as much as did ancient Athenian thinkers.

Every true genius starts with a set of shared cultural “knowledge,” and he or she grows from there. As Newton wisely said, we are standing on the shoulders of giants. He also said our knowledge is like looking from the shore over a great and deep sea, of which we know very little. A modern example could be the absolute brilliance of 19th and early 20th century physics, only part of which survives intact today. In today’s world ideas seemingly come and go with the lifespan of a campfire match. That’s good, except when great ideas are also lost in the tidal flow of mediocre ideas, and where everybody thinks they know it all. Fortunately, philosopher-scientists using Wikipedia and other sources can still stand on the shoulders of giants who preceded us.

We live in a novel era of accelerating intellectual change. Most of us only notice the new consumer gadgets spewing forth. Behind those clever gadgets are varying degrees of creative intelligence, individual and cooperative. However, the greatest emerging intelligence is the interface between human researchers and their data-rich machines. The progression of interactive computers since WWII is astonishing, and we are seeing qualitative changes in computational ability almost in real time. The key question always is: Where is the wisdom to go along with the new data?

A hallmark of modern progress is the collegiality of intellectual work. Sharp people who alone might stand out as geniuses are subsumed within groups of academic and industrial researchers. Groups of researchers share equipment sometimes costing billions of dollars. When major observational discoveries are made – such as in 2017 of the merger of two neutron stars – you may see individual papers with as many as 3,500 co-authors. Such is the culture of publish-or-perish within Big Science.

Too often data measuring correlation with old theory substitutes for understanding causation. When the easy way provides academic tenure, who needs anything more than what has worked before? References-and-coauthors is the formula. Nobody likes to be the nail sticking up.
Where does fresh thought fit into modern intellectual work? When most senior researchers can at least pass for near genius, and the money is flowing in from mystified donors, there is little tolerance for dissonance. What we now have is a modern version of defending orthodoxy that has been around since before the birth of Jesus (Socrates’ poisoning).

After the brief terrestrial life of Jesus, there was much debate over what properly is Christianity. In church councils centripetal orthodoxy always won out over seemingly centrifugal heterodoxy, which was condemned as heresy. A disruptive heretic is always feared more than the nonbeliever.

Medieval centripetal theologians and popes are today celebrated. The wise monk Pelagius was deemed at the Synod of Carthage in 418 to be a heretic because he doubted original sin and predestination, saying that people are good and have free will. Such crackpot ideas could challenge emerging Medieval social order, where church and king would be a synergy.

What is deemed “right” or “in error” is entirely structural-functional. Decrees about theological truth ignore that a lesser can never embrace or envelop its greater. (For clarification, I am referring to the power of theology or mathematical science as the lesser – and to the ultimate subject matter of theology and science as the greater.)

Religion literally means to throw back. It is a form of conservatism. All forms of conservatism treat the deep past in mythological terms. Such a mindset can be theological or “scientific.” Again, the key to understanding all this weirdness is a sophisticated understanding of systems theory.

Modern thought is increasingly secular. Many thinkers hold on to their religious beliefs, and still follow the scientific method as they understand it, within the parameters of their funding sources. However, the psychological impulse for religious comfort is profound, as fear of sickness and death seems to require an escape door to eternal Heaven.

Short of Heaven, people like to overly admire those who can appear to explain the ultimately unexplainable universe. Einstein has been shrouded with godlike wisdom in popular consciousness. That is why established astrophysicists sometimes become cultural rock stars.

Since real genius is exclusively concerned with Truth, or at least the effort to find Truth, genius is seldom comfortable with orthodoxy of any sort. I am not just talking about astrophysics, but about anything and everything.
Genius can end up being burned at the stake (Giordano Bruno), subjected to house arrest (Galileo), or called a crank and ignored. True genius doesn’t care about the opinions of others, just about the pure search for Truth and ultimately Wisdom.

Plato defined philosophy as the love of wisdom, not the accumulation of what might as well be more random facts. We have industrially generated too many “facts” veering off in all directions, usually in the service of the highest bidders.

Our 21st century world needs humanistic wisdom and vision now more than ever. If there ever was a critical time for true humanistic genius in service to society, this is it. The only question is whether wisdom or the hammer shapes our future.