The importance of blending art and science

Stephen completed his BA at the University of Washington in Seattle, and began his international education career in Mexico teaching English to teens and methodology and pedagogy at university level for language teachers. He was then asked to take on the international enrollment management for Lemania Group of Schools in Lausanne. In 2007, he established career services at EHL, opening their first-ever Career Center. Stephen speaks three languages, lives on an organic farm, and has three daughters.

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"The worst scientist is he who is not an artist; the worst artist is he who is no scientist. In early times, medicine was an art, which took its place at the side of poetry and painting; to-day, they try to make a science of it, placing it beside mathematics, astronomy, and physics."

— Armand Trousseau, French neurologist[1]

Research shows that listening to Bach or Mozart may help us understand certain arcane concepts of trigonometry and vice versa; speaking two or more languages enhances abstract reasoning, and the brain's faculties can be improved through training.

A recent book, Sparks of Genius[2], identifies the thought processes of accomplished polymaths in a wide range of fields, and outlines methods for emulating these. Most of us won't reach the levels of Da Vinci or Michelangelo thanks to whom we have Sikorskys and the Sistine, though who knows?

Like Galileo, best known for astronomy and Vatican peccadillos but also a musician, engineer and inventor, they define the Renaissance man or polymath, and can inspire us to prosper in our chosen fields by combining elements of art and science, rather than looking at these as polar opposites.

Two Nobel prize winners, one a physicist and one a poet, illustrate this beautifully: Richard Feynman learned to draw in order to express the beauty he observed, whether in the petal

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(1) : IN Armand Trousseau and John Rose Cormack (trans.), Lectures on Clinical Medicine: Delivered at the Hôtel-Dieu, Paris (1869), Vol. 2, 40.

(2) : Sparks of Genius: The Thirteen Thinking Tools of the World's Most Creative People – 2001 by Robert S. Root-Bernstein and Michele M. Root-Bernstein

"There is an art to science, and science in art; the two are not enemies, but different aspects of the whole."

— Isaac Asimov, author and biochemist[3]

or the cell of a flower, while Pablo Neruda incorporated many astronomical observations in his love songs and cantos. Ben Franklin and Thomas Edison were both incredibly prolific inventors; the former was also a printer and accomplished musician while the latter created the phonograph, in spite of being partially deaf.
A lesser known figure in the history of mosaic geniuses was the founder of topology, Henri Poincaré, a 19th century mathematician and physicist but also railway engineer and philosopher who taught at the Sorbonne, and became as well known for his essays on free will as for his numerous original theorems. He seems to have had an equally important influence on Einstein (who met him and argued about relativity) and Picasso, who did not have the pleasure of a tête-à-tête, but who rethought his use of dimensions in ways leading to Cubist painting, in response to Poincaré's essays on perception.
Jules Verne trained as a lawyer, but was a self-taught geographer and is renowned for creating the science fiction genre. Unlike H.G. Wells and others, he actually kept abreast of current inventions and projected into his stories futuristic ideas most of which have been realized: from TV news to rocket boosters for moon landings (borrowed by Hergé for Tintin 50 years later). His work is also the inspiration for one of the wackiest creative engineering projects of our time, Les Machines de l'Ile de Nantes, created from sketches that call to mind the inventions of Leonardo da Vinci.
Francois Delaroziere and Pierre Orefice, performance artists and designers, have

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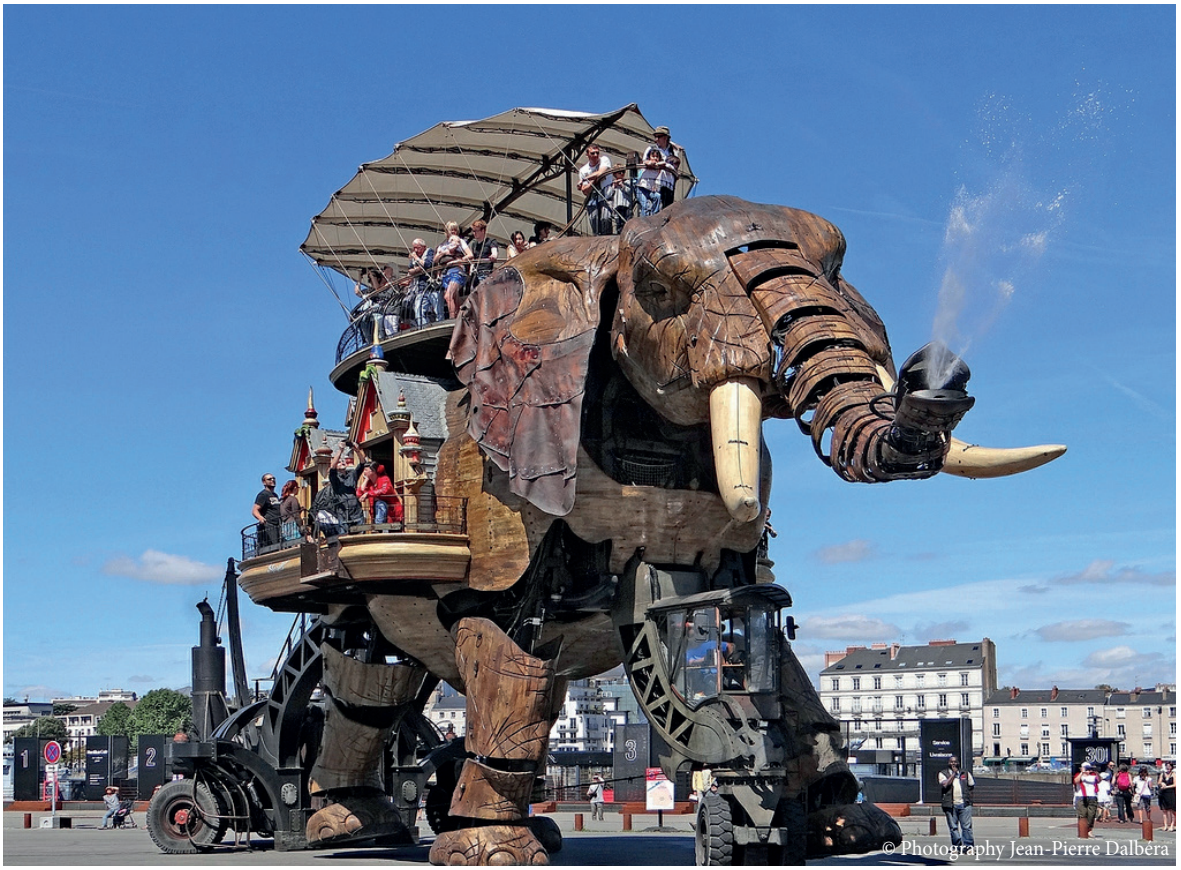
(3) : Epigraph in Isaac Asimov's Book of Science and Nature Quotations (1988), 251.

"The most beautiful emotion we can experience is the mystical. It is the power of all true art and science."
— Albert Einstein, tramway conductor[4]

assembled a team of engineers and technicians whose Grand Eléphante lumbered right out of a Verne scenario : a 12-meter mechanical pachyderm which can transport up to 35 people on a rollicking ride around the retrofitted shipyards called "les nefs"[5].

Inspired by Verne's short story about a Sultan who built a time-travelling elephant, at eight meters wide and 21 long, it is about seven times larger than a live elephant. Made from 48,4 metric tons of steel and Tulip poplar wood, it stamps its feet, flaps its leathery ears, trumpets vigorously and blows water from its twirling trunk, soaking anyone in its path. Other bizarre mechanical creatures, including a giant spider, an enormous inchworm which you can ride, and a giant squid populate the sprawling wonderland[6].

What a delightful way for art and engineering to team up to make fantasy not to mention tourism and urban renewal-happen, and mind-stretching fun for both inventors and participants. To sum up, let's cite the velophile and sometime philosopher with the wild hair, "There are two ways to live: you can live as if nothing is a miracle; you can live as if everything is a miracle. The most beautiful thing we can experience is the mysterious. It is the source of all true art and all science." — Albert Einstein



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(4) : As quoted in Philip Frank, Einstein: His Life and Times (1947), chap. 12, sec. 5 - "Einstein's Attitude Toward Religion."

(5) : http://www.bbc.com/travel/story/20140925-in-france-a-steampunk-park-of-jules-vernes-dreams

(6) : Read more: http://www.traveller.com.au/stranger-than-fiction-7yml#ixzz4brQrIwO9