

Пути новаторов: Тесла Мемориальная Конференция & Тесла Spirit Awards

An Innovator's Journey: Tesla Memorial Conference & Tesla Spirit Awards

доклад на **Тесла Мемориальная Конференция & Тесла Spirit Awards**. о силе воображения и инновациях

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I recently had an opportunity to present a talk at **Tesla Memorial Conference & Tesla Spirit Awards** about the power of imagination and innovation on creating bold and bright future. The talk is dedicated to all past, present and future serial innovators around the World and it is inspired by Nikola Tesla's article "*How Cosmic Forces Shape our Destinies*" published on February 7, 1915. Here is what I shared:

What is Innovation?

Today we will explore a philosophical context of innovation. In your own words, how would you describe innovation so that anybody can understand it? Would you say it is: invention, science, technology, creativity, imagination, or perhaps all of the above, and something more?

I like to think about innovation as a philosophy: the way we see the world, the way we live our life, and a very unique and intentional way we approach our future. So, let's see what future might be holding for us.

Our planet is constantly changing. A growing demand for resources to meet our basic needs is putting an increasing strain on our planet. We already consume more than the Earth can regenerate: 1.5 times the capacity of our planet. The world's population is growing by 80 million people every year. If this trend continues, by 2050 we will have 9 billion people on the planet, and we will need the resources of almost three of our planets to meet the demands of the population (source: BASF). This will pose huge global challenges for our society.

Innovators are Courageous Problem Solvers

The forecast might be unsettling. And, while there is a real reason for concern, there is no reason for panic. If we want to be pragmatic and philosophical, we can say that every problem is a situation in need of a solution. I actually feel hopeful and happy to see your passion, curiosity and desire to be part of the change. The fact that you are interested in this topic speaks a lot to me about your dedication and intrinsic drive to solve problems and create a better legacy for generations to come.

In a simplified holistic and philosophical view, innovation is a journey--or everything that happens between getting from the problem to the solution. And this journey is a leap of faith, because it takes courage and tenacity to embark into unknown and stay on the course until a new reality is fully realized, and adopted by our other fellow citizens. Bringing one single innovative solution to life is already quite amazing. Repeatedly delivering a consistent break-through is simply fascinating! This means that you perhaps had to jump through several hoops, if not even walk on water, and meantime stars had to align so the magical moment can occur. This is why we all admire life and legacy of Nikola Tesla and other

great serial innovators that endowed our generations with a quality of life and conveniences we enjoy today.

Future Starts with Imagination

Let's zoom in on the hero journey of a serial innovator. If innovation is a bridge between presence and a possible future, then the cognitive origin of the future is our own imagination. As Wayne Dyer nicely said, "All that now exists was once imagined". Every little thing in this man-made world has to be imagined before it was built. And, "If you can't imagine it and describe it, it cannot be built" (M. Scholz). Fantasy and imagination are essential to innovation, and so is the freedom to dream, explore and play. If you want to be great innovator, nurture the dreamer and the curious child in your heart. Stay enthused and open to see the world with fresh eyes every day, and the world will open up its secrets to you.

Magic Happens when Insight meets Foresight

An important trait of serial innovators is their ability to maintain foresight. They are system thinkers and they spend time to understand the world we are in and all of its various aspects. They study legacy to see what will become obsolete, what needs to be changed. They maintain a holistic and dynamic view of the problem to allow for creative surprises. They ask: "What if...?", "Why not...?" and "How might we...?" They stay future oriented, and they allow for exploration and pivoting.

On the other side of the coin is the whole inner world of being. What is insight? Insight exists in our conscious self and it is a seed of creativity. Insight is fragment of some truth revealed, an echo of the universal in particular. For example, your bookmark notes are your personal insights about the situation described in the book.

We can train our mind to be more insightful. Insightfulness can be improved through practice of mindfulness, meditation, observation, awareness, internal dialogue, yoga, relaxation, diet and various other ways. While the insight occurs in our consciousness, we are one holistic mind-heart-body-soul system and what happens in our heart, body and soul will affect the types of insights we will be experiencing.

When foresight and insight converge, we experience the "a-ha" moment. Suddenly, it all seems to fit together. It all finally makes sense. The vision of new possibility emerges. An idea for a new solution is born.

Ambiguity is an Opportunity for a Break-Through

Serial innovators thrive in ambiguous situations. They are not put away with uncertainty and risk associated with too much of unknown. In fact, serial innovators are very effective in converting ambiguity into an opportunity, and unknowns into assumptions, ideas and solutions. They seem to be able to define new context, give their experiences and sensations a meaning, and paint a bigger picture even when there are apparent gaps in understanding. We sometimes refer to it as a gut-feel, or the intuition. Ambiguity, in fact is a perfect condition for a break-through innovation. Ambiguity increases randomness, and relaxes walls of our currently held beliefs, so we can create space for finding and connecting new dots.

Importance of Timing

The dots connect when opportunity meets preparedness. We experience it as synchronicity, serendipity or coincidence. The way it appears is as if the whole universe conspired to support your intention. In some religions this is called state of grace and anonymous gift of God. Coincidences become more frequent when we have better clarity of our intent, and when are not bogged down with our ego, but rather open to see universe an extension of ourselves (source: www.chopra.com). I'll read here this beautiful quote from one of the Tesla's papers that he wrote when he was 59. He says:

"Thus, everything that exists, organic or inorganic, animated or inert, is susceptible to stimulus from the outside. There is no gap between, no break of continuity, no special and distinguishing vital agent. The same law governs all matter, all the universe is alive."

Enlightened entrepreneurs are serial innovators that gracefully turn ambiguities into opportunities.

Innovation Needs a Movement

While invention might happen in a solitude of your lab or in a privacy of your home, giving birth to innovation is not a solitary endeavor. Relationships matter. After all, innovation only lives if society adopts it. Disusing an idea with a trusted acquaintance or a colleague can generate new insights, and shape your concepts and solutions for an easier acceptance.

Break-through happens when idea becomes a movement, and it speaks to minds and hearts of others, usually to their core desires, aspirations and dreams. Serial innovators have an activation energy needed to create climate for adoption of their innovation. They inspire, role model, tell stories and create a sense of urgency, when needed. They are the leaders and storytellers.

Finally, they need to ensure execution of their ideas, concepts and solutions. And this is something Tesla was particularly proud of. Building things was what gave him a tremendous joy. The quote says:

"I had carried out what I had undertaken and pictured myself achieving wealth and fame. But more than all this was to me the revelation that I was an inventor. This was the one thing I wanted to be. ... The inventor, I thought, gives to the world creations which are palpable, which live and work."

Transcending to Wisdom

Serial innovators are sages whose wisdom transcends their time. Through their works and graceful service to humankind, new truth continues to be revealed and realized. This truth has gathered us today to celebrate Spirit of Tesla and spirit of innovation. Instead of conclusion, I'd like to close this talk with beautiful words of Nikola Tesla:

"Every living being is an engine geared to the wheelwork of the universe. Though seemingly affected only by its immediate surrounding, the sphere of external influence extends to infinite distance. There is no constellation or nebula, no sun or planet, in all the depths of limitless space, no passing wanderer of the starry heavens, that does not exercise some control over its destiny—not in the vague and delusive sense of astrology, but in the rigid and positive meaning of physical science. "

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<http://www.svetlanadimovski.com/2/post/2014/01/tesla-memorial-conference-tesla-spirit-awards.html?>

Professional Bio

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is Manager of Open Innovation and Science Relations at BASF North America. Svetlana holds BS/MS in Mechanical Engineering, University of Novi Sad, Serbia, and PhD in Materials Science and Engineering, Drexel University, USA.

Dr. Dimovski started her industrial career at Procter & Gamble in Cincinnati as an R&D Materials Scientist, where she managed central Analytical Discovery Electron Microscopy Lab and contributed on several major product launches across Health, Beauty and Household Care business. Significant projects/products include: Tide and

Ariel with ACTILIFT, Vicks Fist Defense and Venus Breeze. She later moved to P&G Global Business Development Organization, where her responsibilities included strategic landscape assessment, innovation ecosystem management, needs, leads and innovation partnerships management and liaison with P&G North America Technology Council. She was frequent contributor in various P&G's innovation & creative problem solving sessions, and was trained in innovation facilitation. She is a recipient of P&G Recognition Shares and several Power of People, Power of Agility and Power of Minds awards.

During her active scientific career, Dr. Dimovski published 11 peer-reviewed scientific papers, 8 conference proceedings, and a book chapter on carbon materials in *Nanomaterials Handbook* (CRC Press). The chapter was reprinted in two CRC Press spin-off books: *Nanotubes and Nanofibers* and *Carbon Nanomaterials*. Her work on carbon cones has been featured on the cover of *Carbon* journal for over a year. Svetlana is the Amelia Earhart Fellow (Zonta International), Dragomir Nikolitch Trust Scholar (Studenica Foundation) and Serbian Ministry of Science and Technology Young Talents Research Fellow.

Dr. Dimovski is passionate about innovation, and she speaks about it frequently at various national and international meetings. She occasionally acts as grant panelist/reviewer (*NSF, USGS*) and research paper reviewer (*Carbon, Applied Physics Letters, Nano Letters, Journal of Solid State Electrochemistry, Applied Physics Letters, Journal of Physics D: Applied Physics, and the MRS Proceedings.*).