INTERVIEWS AND REVIEWS

Disrupt Science: The Future Matters; An Interview with Author Professor Mihai Nadin.

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Knowledge, they say, is power and the quest for a better understanding of the world through science is almost as old as the being of man. Just as in the days of the great inventors, scientists and philosophers, Professor Mihai Nadin, is advancing a different view of science and the world through his book; "Disrupt Science: The Future Matters". Find out more in this exclusive interview with TechBullion.

Please tell us more about yourself.

Mihai Nadin: "I am my questions." Enjoying the luxury of lifelong learning—12,000 students means opportunity to interact with the brightest. There is nothing I do not want to understand, and there is nobody in the world I would ignore as a source of knowledge. Even my colleagues in the academia.

What is the main objective of your book "Disrupt Science: The Future Matters" and how does it aim to achieve this goal?

To advance a view of science that does not explain away complexity but rather builds upon knowledge that sees the world in its unity: the living and the non-living. Past, present and possible future are to be accounted for in a holistic view.

How does Disrupt Science challenge the traditional methods and assumptions in science?

The amazing accomplishments of science in explaining the non-living and deriving knowledge regarding its dynamics lead to the wrong assumption that physics and chemistry explain life as well as they explain the mechanism of the universe. We reached the threshold at which this reductionist view undermines the future of humankind and of life on earth. To continue a course of reaction to change—sometimes of tragic consequences—to the detriment of anticipatory actions, reflecting our values and goals, is not sustainable.

In what ways can individuals assume responsibility for the future of humanity and the planet, as emphasized in your book?

- **1)** Empower through education—awareness of how anticipation is expressed in each of our actions and in our interaction with the world;
- 2) Enhance anticipatory abilities through diversified interactions;
- **3)** Avoid delegating to machines functions that maintain motoric, cognitive, sexual, metabolic, immune functions:
- 4) Awareness of one's creative potential—creativity is not a gift but a responsibility
- **5)** Adopt and practice a holistic view of life—being part of larger whole is a privilege but also an obligation. We are responsible not only for ourselves but also for the world in which our existence unfolds.

Can you highlight some key areas or industries where disruptive science can have a significant impact?

- Medicine
- 2. Nourishment
- 3. Education
- 4. Politics
- 5. Defense
- 6. Entertainment
- 7. Energy

What specific changes do you propose in our current approach towards scientific research and innovation?

- 1. Reassesses priorities on account of the possible future;
- 2. Stop pushing the reductionist view of reality;
- 3. Focus non-deterministic processes, which determinism did away with in its explanations, in order to understand the complexity of life;
- 4. Stop the delusional path of BIG SCIENCE;
- 5. Focus on meaning

How does Disrupt Science address any potential ethical concerns or risks associated with disrupting established scientific norms?

Deterministic science has no place for ethics. Science as an expression of knowledge about reality—both the inanimate and the living—owes it to society to make it aware of its consequences. Disrupting current scientific structures and questioning the principles on which they are based can happen only if transparency is pursued at each instance of the process of knowledge acquisition. The risk of continuing blindly on the reductionist-deterministic path exceeds by far the risk of abandoning the total submission to its predicaments.

Are there any notable success stories or examples of real-world applications stemming from disruptive science principles mentioned in your book?

In the absence of integrity, science, at all levels (from that of the individual scientist to that of communities of shared concerns), leads to self-deception. With this in mind, I would not taste wine from the chalice of self-deception—dubious accomplishments claiming recognition (such as the recent euphoria in machine learning, for example).

Notable accomplishments:

- 1) Understanding aging and how brain plasticity can be stimulated—Eric Kandell's work and applications (Project Seneludens at the antE Institute for Anticipatory Studies, Picower Institute for Learning and Memory at MIT, etc.)
- 2) Anticipation Informed Design:

 https://www.google.com/books/edition/Anticipation_Informed_Design/ReiiEAAAQBAJ?

 hl=en&gbpv=1&pg=PA1&printsec=frontcover#v=onepage&q&f=false
- **3)** Work in the area of interactive computation. In particular, the four operational global systems: the United States's Global Positioning System (GPS), Russia's Global Navigation Satellite System (GLONASS), China's BeiDou Navigation Satellite System, and the European Union's Galileo.
- **4)** Anticipatory predictive modeling

For someone who may not be familiar with advanced scientific concepts, how would reading "Disrupt Science: The Future Matters" benefit their understanding of these topics?

- 1) The book formulates questions which within the dominant Cartesian view are not even considered? (example: is there a relation between the energy used in various actions and the intelligence expressed in choices made?)
- 2) Awareness of the relation between reaction (to breakdowns) and prevention?
- **3)** Awareness of the holistic nature of human activity and the consequences (such as for medicine) for our own decisions?
- **4)** Assume an active role in everything involving change (from societal, cultural, artistic to political, economic. etc.)

Do you have more tips for our readers today?

Machines are getting smarter—they were conceived to make human activity easier. In the case of hydraulic machines or pneumatic machines, it was easier to notice that work was performed on account of energy easy to use and not borrowed from the future. Newer generations of machines, rely on sources of energy (electricity mainly) that depend on resources connected to our future. The smarts of machines (performing more and faster all kinds of functions) comes at the price of surrendering to them: think about dependencies of all kind that changed humans in many ways. Is the trade-off justified?

People are getting dumber: many functions were given up or are in the process of being transferred to machines. Human sovereignty is lower than ever while at the same time humanity started to wonder to which extent machines can further undermine life on earth.

READERS: consider that what maintains life at each level is anticipatory expression. Why remain captive to explanations of how nature work based on how non-living matter is subject to change? In short: make questioning of what is presented as science as an opportunity to broaden the perspective instead of aligning opportunistically to the dominant theology of reductionist-deterministic vies.

Creativity is what defines life at all its forms of manifestations. The living is in a never ending dynamics of making and remaking itself. Non-living matter is subject to forces effectively described in the physics and chemistry developed with the purpose of explaining the universe. Living matter, which started from scratch is by now the dominant matter in our world. It is created at faster rhythms than ever, and reproduces itself to the extent that creativity deserves to become our main subject inquiry and discovery.

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