NILADRI
DUTTA

TARDID technologies

Enhancing Deep Learning Innovation With Knowledge-Based Decisioning

Tardid is a technology company committed to bring autonomous prescriptive solutions for industrial assets by combining both the worlds of physics and machine learning. The company specializes in providing AI-based prescriptive maintenance for large metallic structures and machines. Tardid's platform "Brainbox" is designed to detect anomalies, prescribe maintenance and provide remaining useful life of the asset with logical reasoning, be it at the property level or due to influencers influencing failures.

To do good ethical business, the company has implemented a strong culture and progressive policies within the organization. This is because doing good business means a big commitment from all of its team every single moment and in every single action. Tardid's commitment is reflected in the personality of Brainbox and its business, internally as well as externally.

Recently, Tardid delivered "Autonomous crack, thickness degradation and leakage" detection system to one of the largest Oil and Gas companies for their LPG cylinder refilling plant. The solution combines machine learning and physics to prescribe current health and the remaining life of the cylinder and possible usage. LPG cylinders operate in a hazardous condition and are handled harshly. The solution which Tardid, has provided to the oil and gas company enables them to continuously monitor external and internal loading patterns and reject cylinders that cross the security threshold.

Leadership That Guides The Evolution

Niladri Dutta who serves as the CEO at Tardid, has a background in protocol stacks, large transactional applications, and analytics. The good 60 percent of his career was in telecommunication and then the paradigm shift in AI. It was difficult due to the nature of the shift; it was like discarding all the ideas and rules that formed the basis of his entire way of thinking. The phase was very challenging, but Niladri was able to adapt and absorb a whole new mindset.

He loves the direct link between decision and outcome. Niladri prefers building an innovative product company that helps in better understanding, decisions, eliminates the need for humans working in hazardous conditions, creates job and serves society. The core of his role is to ensure that Tardid has a long-term strategy in place that keeps the team and customers excited all the time. In order to lead this strategy, Niladri constantly recruits the best people to his team, explores industrial failures and unfortunate situations to guide the evolution of "Brainbox", its AI product and meeting with customers to ensure continuous growth.

Serving Nation With Innovative Services

There is no better service than the one towards ones' nation, not only it is their duty but also their responsibility to contribute towards the nation which has provided them all. Tardid was fortunate to get its first project with the Indian Defense. The company's core vision is to become a global leader in Artificial Intelligence (AI) Product Providers for industries dealing in heavy industrials. Tardid is continuously working towards providing AI products for reducing their unplanned downtime and increasing

productivity and higher ROI. In fact, in collaboration with a few strategic customers, the company is building unique AI products which are first of their kind.

Lessons Derived From Real-Life Experiences

Niladri is a near-fatal air crash survivor. The first thing crossed his mind is how safe people are with these heavily researched and highly innovative assets, like an aircraft. Things can go wrong in a second. It was disturbing but Niladri realized the depth of what Albert Einstein said, "We can't solve problems by using the same kind of thinking we used when we created them." According to him, this is one of the greatest lessons he ever learned regarding leadership. He suggests to "keep nurturing ideas, optimize your strengths and build a structure around you that mitigates your weakness."

Allied Expertise Against Business Challenges

Niladri always had an inkling that running his own business might be the right path, but he has never worked for himself. He did his graduation in electronics and has worked for large IT companies who have large clients like telecom service providers, shipping liners and manufacturing. The first thing to do was find a business partner – Niladri has the technical knowledge, but he needed help to build a good company. He found Aastha Verma who did her post-graduation in marketing from Symbiosis and had perfect expertise. The second challenge was to build a good product, and he found Dr. Giri who did a Ph.D. at NTNU and was plugged into the NTNU tech scene and had a perfect understanding. They all met at the perfect time.

Acceptance and Improvisation: Vitality of Leadership

In Niladri's opinion, "As an innovative leader, one must be always willing to learn, explore and accept failure as the first step to success. At the cost of sounding cliched, acceptance of failure and the will to improvise and attempt again is the most vital attribute of every innovative leader. To embrace the learnings from failures which could be of the self or any one else's, one must keep learning and moving forward." One must not get discouraged by the world not accepting their ideas in the beginning, they should be ready to be laughed at and humiliated as well, but he suggests to keep self-belief and keep innovating, as this is a journey for innovating all the time.

Customized Product Line

Innovation is a continuous process, Tardid's products are kept under a constant hammer to make it more appealing to the audiences. One such process was to de-bundle the platform into a more modular format so that the customers find it easier to adopt into their organizations. Furthermore, the products are designed in collaboration with customers to meet their exact requirements.

Technology-Enabled Digitized Consciousness

Most people are not familiar with the concept of Artificial Intelligence, and few who are aware of it treat AI as advanced data analytics. AI is more than what people think. Niladri says, "As we live our lives and as we quantify our innovations, we are uploading and digitizing our consciousness and machine experience where we are constantly putting that data into the digital world, and eventually that will be gathered by an AI and it will become the digital mere self; the digital twin."

AI is undertaken in conjunction with Machine Learning, Physics, and Deep Analytics, where machine learning looks for underlying trends, and models help in understanding the influencers, further, the knowledge is used to analyze specific issues. Data can be in the form of digital information, imagery, signatures, visual information, text or unstructured data.

AI is disruptive, and through this comprehensive overview, Niladri says he would like to explain to policymakers, opinion leaders, businesses and interested observers, that AI will alter the world and will raise important questions for society, the economy, and governance.

Futuristic Transformation from AI

AI is a technology which will transform every walk of people's life. It is a wide-ranging technology which will make every one of them to rethink how they integrate information, analyze data, understand the influencing parameters and use the resulting insights to improve decision-making supported by scientific reasons.

AI is not futuristic vision, but rather that is something already available and can be easily integrated and deployed into a variety of sectors. AI will make a huge impact on the world while enhancing human capabilities in significant ways.

Words of Wisdom

Niladri advises budding business leaders to start from where they are, work with full confidence, keep their ego in check if they have a large vision and have faith and belief in their own ideas.