

AI-Driven SEO: Innovation, Ethics, and the Dilemma of Pausing Progress – The Case of Thatware LLP.

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Abstract. This case study explores the pioneering role of Dr. Tuhin Banik and his company, Thatware LLP, in revolutionizing the Search Engine Optimization (SEO) industry by integrating Artificial Intelligence (AI) technologies. It highlights Dr. Banik’s journey from a passionate technology enthusiast to a global leader in an AI-driven SEO industry, showcasing his vision of leveraging AI to enhance SEO strategies, predict trends, and automate complex tasks. The company’s journey includes overcoming challenges in AI tool customization, refining algorithms, and maintaining ethical standards. Thatware LLP continues to lead innovation in the ever-evolving digital marketing landscape through Agile Digital Transformation. Further, the case study explores the “need to pause” advancements, which Dr. Banik thinks is important due to potential long-term societal problems caused by AI. He feels that pausing AI development may better ensure that the technology is more beneficial and responsible, while balancing innovation with caution.

Keywords: search engine optimization, digital marketing, user experience, internet marketing, agile digital transformation.

1. Tryst with Technology

As a young, qualified, and visionary entrepreneur, Dr. Tuhin Banik recognized a drift toward the AI-SEO bond and founded Thatware LLP, in Kolkata, India, a company dedicated to leveraging cutting-edge AI technologies to revolutionize SEO. This case study explores how Thatware LLP uses generative AI to enhance SEO strategies, improve search rankings, and deliver tangible results for clients across the globe.

2. Meet Dr. Tuhin Banik

Dr. Tuhin Banik’s fascination with technology started early. As a young boy, he dreamed of owning luxury cars and sought out every bit of technological information he could find. This passion for technology grew with him and

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diversified, eventually leading him to become one of the most visionary entrepreneurs in AI-powered SEO.

He has wide expertise in AI, Robotics, NLP, Machine Learning, Data Science, and Semantic Engineering, and holds a Doctorate in Technology and an Engineering degree in Electronics and Communications.

Dr. Banik's passion for technology and innovation drove him to explore the potential in AI, and apply it in his field of expertise. He understood the market's needs and capitalized on the gaps in the ever-changing Internet world. He has won many top technology awards in India and abroad, and is a TEDx speaker as well.

3. The Genesis and Development of Thatware LLP

The inspiration for starting the company came from a recognition of the growing importance of data-driven decision-making in digital marketing. Seeing the fast-paced market landscape, Dr. Banik was worried about the loss of market-share due to aggressive competition. This prompted him to consider the use of AI from the perspectives of end-users and long-term market growth strategies. He imagined a world where search engines predict and respond to people's queries with uncanny precision.

He envisioned AI as a transformative force in digital marketing and SEO. He understood its extensive capabilities to analyze vast amounts of data to uncover insights and optimize strategies better than traditional methods for fast-growing organizations. He aimed to leverage AI to enhance keyword search and content creation, predict trends and adapt strategies in real time, offering a competitive edge in a rapidly evolving digital landscape.

In 2018, Dr. Banik founded Thatware LLP, which focused on AI-driven SEO. He developed his services around more intelligent, data-driven approaches to keep pace with the dynamics of Internet searches and digital marketing.

Thatware LLP's mission was to democratize advanced SEO strategies by making them accessible to organizations ranging from small to large enterprises. The company's core philosophy was to use AI to automate routine SEO tasks and generate actionable insights that can drive significant improvement in search rankings for organizations with the help of analytics and deep-dived data. This would help them benefit by lead generation, and also add value for people searching the Internet.

4. A Closer Look at SEO Evolution

Search Engine Optimization (SEO) has undergone significant changes since its inception in the late 1990s, just three years after the launch of the world's first website. Initially, SEO was straightforward, focusing on essential keyword