

Unilever Embraces AI to Transform Food Development

As artificial intelligence (AI) increasingly permeates the food and beverage industry, Unilever stands out for its extensive use of this once-futuristic technology. The consumer products giant leverages AI to revolutionize and expedite food product development, leading to the creation of innovative products like Knorr Zero Salt Cube, Hellmann's Vegan Mayonnaise, and Hellmann's Real Mayo Squeeze Bottle.

Unilever incorporates AI across various facets of its business. The London-based company uses AI to assess the shelf life, texture, and taste of its products and to predict factory line performance during production. Additionally, AI is utilized to forecast flavour profiles, understand consumer preferences, and enhance food portfolio analytics.

Manfred Aben, the head of science and technology for Unilever Nutrition and Ice Cream Research and Development, highlighted AI's role in the company. "Over the last decade or two, the availability of data and computing power has significantly increased," he said. "Initially, AI was used primarily in marketing and consumer understanding. Now, it's pivotal in R&D, supply chain optimization, and creating products that consumers prefer."

Unilever's AI-driven innovations include the development of the Knorr Zero Salt Cube. Creating a salt-free bouillon cube required AI to analyze countless ingredient combinations to replicate the taste and texture of traditional cubes. Similarly, AI facilitated the creation of Hellmann's Vegan Mayonnaise by predicting flavour and consumer preferences, reducing the need for extensive lab experimentation.

AI is also instrumental in optimizing Unilever's supply chain, minimizing trial and error, and predicting product behaviour on factory lines. "AI helps us understand processes at various stages," Aben explained. "It combines data from taste panels, consumer research, and factory operations to ensure products are consistent in quality and performance."

Aben emphasized that AI is integral to Unilever's business strategy, aiding in faster market launches and better addressing consumer needs. "AI allows us to develop solutions that might not be possible otherwise, saving time and reducing costs," he said. The technology also helps Unilever adapt to market fluctuations and ingredient availability, ensuring product consistency despite changes in supply.

Despite AI's transformative capabilities, Aben noted that human expertise remains crucial. "AI builds on data and statistical models, but human creativity and judgement are irreplaceable," he said. "The true value of AI lies in its synergy with human experts, expanding their intelligence and capabilities."

Unilever's innovative use of AI in food development exemplifies the technology's potential to drive industry advancements. As AI continues to evolve, Unilever is poised to leverage its capabilities to further enhance product quality, sustainability, and consumer satisfaction.

Reference: <https://agronfoodprocessing.com/unilever-embraces-ai-to-transform-food-development/>