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The Impact of AI's Data Drought on the Food and Drink Industry

Artificial intelligence (AI) has become a transformative force across various industries, including food and drink production. However, the sector faces a significant challenge known as the “data drought”.

This phenomenon refers to the scarcity of high-quality, human-generated data necessary for training AI models. The internet, once a rich source of data, is now increasingly restricted by paywalls and security measures, limiting the availability of new data for AI training. As AI systems rely heavily on extensive and varied datasets, the depletion of accessible data poses a threat to their development and efficacy.

In the UK food and drink industry, AI applications are diverse and transformative. AI applications can be used across the industry from supply chain management to food and drink preparation, production and distribution. Recent research highlights the use of AI in enhancing operational efficiencies, improving product quality, and ensuring safety standards. For instance, machine learning algorithms can predict equipment failures, optimise supply chains, and enhance quality control processes. Moreover, computer vision, another AI technology, can play a crucial role in visual inspections, ensuring product consistency and detecting defects.

Despite these advancements, the data drought presents a significant challenge. As AI-generated content proliferates online, distinguishing between human and machine-generated data becomes increasingly difficult. This issue is compounded by the fact that synthetic data, created by AI, often degrades the quality of models over time. Consequently, the food and drink industry must navigate the delicate balance between leveraging AI for innovation and ensuring access to high-quality data.

To mitigate the effects of the data drought, companies in the food and drink industry must explore investment in data, strategic partnerships and data-sharing agreements. From the perspective of AI companies, collaborations with content providers and other data-rich businesses can provide access to valuable datasets, ensuring the continuous development of AI models. It is recognised that such investments and collaborations should be appropriately compensated, which could provide commercial opportunities and financial incentives for businesses in the food and drink industry. This additional revenue could help mitigate the already high costs of AI implementation, however companies must weigh the benefits of sharing their data against potential regulatory risks and competitive disadvantages. Regardless, some form of investment in AI at an early stage will likely prove fruitful for companies in the long run by creating efficiencies and improving quality and sustainability.

In conclusion, while AI holds immense potential for the food and drink industry, the data drought poses a significant challenge. By addressing data scarcity through investment into data and strategic collaborations, the industry can continue to harness AI's transformative power for future growth and innovation.

To find out more, read our latest chapter in the Data Bandwidth campaign on the **AI data crisis**.

To request a copy of the **Commercialising your data** briefing pack, please email at campaigns@cms-cmno.com

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