

Revolutionising the catering industry with AI

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Sergii Khomenko is a technology and e-commerce expert and co-founder of [Autocanteen](#), the UK's first touchless self-checkout solution which increases checkout efficiency.

In an age where technology is reshaping the fabric of our daily lives, innovations are not only enhancing efficiency but also fundamentally altering the way industries function.

One such transformative force is Autocanteen, which has harnessed cutting-edge technology to create the UK's first touchless self-checkout solution, marking a significant leap forward for the food service sector. By integrating computer vision and machine learning, Autocanteen is redefining the customer experience, streamlining operations, and empowering catering managers like never before.

The foundation of Autocanteen's impact rests on its state-of-the-art self-service solution, which has shattered traditional norms in the catering industry. Conventional checkout processes often involve manual scanning of barcodes, leading to long queues, inefficiencies, and ultimately, unsatisfactory customer experiences. Autocanteen's revolutionary approach circumvents these issues by utilising advanced computer vision and machine learning algorithms which can identify items – from plated meals to beverages and snacks – without the reliance on barcodes. This innovation translates into shorter wait times, improved operational efficiency, and a heightened focus on enhancing customer service.

The core of the solution lies in its intricate operation. It commences with the deployment of a cutting-edge 3D image scanner, which captures high-definition images of food items. These images are then subjected to a computer vision algorithm, leveraging a deep neural network powered by artificial intelligence. This dynamic algorithm intelligently dissects the captured images, recognising and categorising the objects

with remarkable precision. The result is a streamlined process that rapidly identifies items based on classifications, effectively bypassing the limitations of conventional barcode scanning.

Once the objects are recognised and categorised, the system quickly calculates the total cost, which is prominently displayed on an intuitive self-service kiosk. Customers can then effortlessly proceed with their payments making the experience seamless.

Apart from the immediate transactional benefits, the company's technology is able to gather invaluable analytical data from each interaction which is then securely transmitted to the cloud, paving the way for knowledge sharing and insights. Clients are granted access to a comprehensive cloud-based dashboard, affording them real-time access to an array of essential information, including menus, inventory records, and sales statistics, available around the clock.

One of the defining strengths of the Autocanteen Self-Service solution lies in its commitment to data security. Operating exclusively through secure wired interfaces, the technology ensures that sensitive customer information is safeguarded throughout the transaction process. By merging innovation, efficiency, and security, Autocanteen has reimagined the self-checkout experience, offering an all-encompassing solution that caters to the needs of both customers and businesses.

Autocanteen's self-service technology has numerous benefits to users:

- **Unmatched Accuracy and Efficiency:** With a remarkable 97% accuracy rate and an average transaction time of just 10 seconds from the first scan to receipt, Autocanteen redefines efficiency in the catering industry.
- **Elimination of Barcodes:** By eliminating the need for barcodes, Autocanteen simplifies product labelling and augments operational speed.
- **Offline and Online Transactions:** The system is flexible enough to support both offline and online transactions, with data seamlessly synchronised to the cloud via a secure connection.
- **Shared Knowledge Base:** The technology is designed to instantly disseminate acquired knowledge to all connected terminals, creating a shared knowledge base that enhances operational efficiency.
- **Back-Office Integration:** Autocanteen's solution easily integrates with existing in-house business systems, ensuring compatibility and adaptability.
- **Multilingual Capabilities:** The technology accommodates customers from various linguistic backgrounds, displaying information in multiple languages including English, German, French, Italian, Spanish, Dutch among others.
- **Customer-Centric Accessories:** Autocanteen enhances customer convenience through modular peripheral accessories such as magnetic stripe readers, status lights, and payment terminals, fostering a user-centric experience.