Machine Learning Event/Topic Discussion:

Just Walk Out Technology

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Machine Learning

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Just Walk Out technology

According to Amazon (n.d.), the Just Walk Out technology enables customers to swiftly enter a store, grab what they are looking for, and leave. Payment is made instantly using deep learning, computer vision, and sensor fusion technologies. Sensors, cameras, and RFID tags work with AI to detect when items are picked up and sync the data with handheld devices, updating virtual carts in real-time (Bentalha, 2022).

One of the main selling points of this technology is its application across different stores and industries. For instance, since it eliminates the need for customers to wait in line, is particularly beneficial in busy environments like airports and stadiums, increasing sales and reducing labor costs (Herrera, 2024).

To evaluate customer perceptions of Amazon's Just Walk Out technology and its impact, a dataset might include: Customer ID for tracking behavior, Number of Purchases for total transactions, Item Count for items picked up, Time Since Last Purchase, Payment Status (Success/Failure), and Customer Satisfaction (satisfied, neutral, dissatisfied). The dataset will contain both numerical fields (Number of Purchases, Time Since Last Purchase, Item Count) and categorical fields (Payment Status, Customer Satisfaction). Payment Status and Customer Satisfaction are dependent variables, while Number of Purchases, Time since Last Purchase and Item Count are independent variables. The important data fields would be numerical and categorical. The data would be sourced from store sensors, customer transactions and customer feedback.

Regarding its results and offered value, a study from the book Innovations in Smart Cities Application (2024) reveals that Just Walk Out technology is appealing due to its ease of use, convenience, and sense of freedom. However, there are concerns about personal data privacy, lack of human interaction and the loss of jobs. Just Walk Out technology offers several benefits: it reduces checkout times for quicker transactions, provides insights about customer behavior, creates fresh experiences, and improves inventory control through real-time tracking (Consumer and Retail Group, n.d.)

Just Walk Out technology has also faced accusations of being deceptive, as it was reportedly supported by a team of 1,000 workers in India. Allegedly, 700 out of every 1,000 'Just Walk Out' transactions were verified by this team (Herrera, 2024; Barry, 2024).

References

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