Study on Use of AI and Big Data for Commercial System

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Abstract— With the advent of Artificial intelligence and machine learning, experiences are changing across the globe. In the Commercial sector, companies are trying to make customers interact with Machines and make them experience the warmth of interacting with a human. This case study scrutinizes the idea of putting life in a vending machine through AI and Big data, taking an example of a big soft drink giant Coca-Cola. According to statistics, the number of Smartphone users is about to rise to 2.9 billion in the year 2019. Hence, giving an immense opportunity for the giant to reach ends. Coca-Cola has already introduced technologies such as AI-powered vending machine, recognition technique like OCR.

Keywords— Artificial Intelligence, Big Data, optical character recognition, vending machine, android pay

I. INTRODUCTION

There are almost 500 soft drinks brand names which are sold to consumers in almost 200 countries. Coca-Cola is the major beverage corporation in the world. Each single day the world consumes greater than 1.9 billion servings of their drinks including brands like coca cola as well as Fanta, Sprite, Powerade, minute maid etc. Such an operation clearly produce a bulk of data immaterial from the origin which might be production, sales blocks, retailing counters across the globe and even customer feedbacks. Despite all, this company managed to stay at the top with the brand value of more than $73.1 billion (being the 3rdmost valuable brand ranking).One of the reason the company has come this far during a span of 130 years is the capability of the company to hold novelty and innovative technology which includes Big data technology.

II. MAIN ISSUE

The editorial article which is in print by Coca-Cola in August 2017 taking us all back to New Zealand, Masterton - a city where the sheep's residing in the city outnumbered people. Amatil Australia and Amatil New Zealand have nearly 26,000 vending machines in their combined territories. Updating one of these machines can require up to 45 mins of on-site reprogramming. This came out as a big problem, as the General Manager of Vending system services Andy Kerr claims. The idea started with identifying the root cause of the problem and challenging the odds. In 2015, Kerr's team was challenged to renovate client interaction with transaction machines into experiences of people in a retail store. They thought of a modern vending machine that could offer specials, track sales, pre-empt preservation, refill desires and admit mobile payments. A device that people don't need to touch to retrieve their drink purchase-An AI Experience, Research and development department of the company came with a newly-digital vending machine

III. COCA COLA USING AI & BIG DATA

Artificial intelligence deals with how much big data you give to vending machines to see which "flavor shots" public mostly prefer. It resulted, that inspiration of their launch was "cherry sprite". For such launch AI is not is needed to make such type of decisions, since it need only collection of the data using conventional questioning methods, which are perhaps true. Though, coca cola in addition it used some of natural language processing tools which are used to check the internet and conclude what views people are holding about their new flavor creation.

IV. AMAZING WAYS COCA COLA IS USING AI & BIG DATA TO DRIVE SUCCESS

1. Scanning Social media

Coca Cola scans social media as in what manner its products are presented or marketed in social media. In 2015 coca cola was able to estimate that its products are mentioned somewhere in the media holding an average of one visit every two seconds. This sort of monitoring is the reason for their new launching of "surge". 90% of customers are now their base customers because of their purchase decisions based on social media content, so for that coca cola uses computer vision to identify and algorithms to verify the response of what customer says about their brand in general.

2. Reading product codes

Coca cola is utilizing AI and TensorFlow to accomplish frictionless verification of-procurement. This attempt was taken around a buyer unwaveringness program; where consumer is required to enter a 14-digit code in their mobile phones. Coca cola initially attempted to tackle the issue by means of an old school technology OCR (Optical Character Recognition), but unfortunately that initiated a problem while trying to scan codes rapidly and perfectly. They at this point swung towards profound learning with Google's

TensorFlow platform. The result of this permitted the consumers to take photos of the codes on the bottle caps which were at that point converted into a code at a 99.97% accuracy, which is taking a single second to process image, and the accomplishment of this effort led to the technology which has become a nucleus element for coca cola's web-based endorsement.

3. Machine learning for selfies

In 2015 Coca-Cola thought of computer vision using Microsoft's tool that speculated people's age. If anyone is uploading a picture holding a coke bottle on https://www.how-old.net/, it will unbolt "the special Coca-Cola experience" which presume your age and tells the age of the coke bottle that customer is holding. Isn't it amazing on how technology is. If you upload a picture holding a coke bottle on https://www.how-old.net/, it will unbolt "the special Coca-Cola experience" which surmises your age and discloses to you the period of the coke bottle you're holding.

4. Artificial Intelligence in vending machine

The Coca-Cola Company as of late appeared an AI-supported vending machine for the Chinese Market Customers can utilize the machine to both purchase refreshments and recycle and reuse empty bottles and cans.By combining drinks sales and recycling abilities, the machine is helping the organization accomplish sustainable goals. Artificial Intelligence technology, such as facial recognition and sound interaction are incorporated in the vending machine, ensuring a fully interactive ordeal for customers. Included on the vending machines are two "eyes", one for accessing purchased beverages, and one for returning bottles to be recycled. In the facial expression on facial recognition and sound interaction, consumers who purchase a drink may likewise get mobile reminders to pay "payback" the bottle once empty, and procure credits by recycling. The machine and data analysis offers additional operation and customer service support for Coca-Cola's different operations and distribution departments. With supply network frameworks powered by Artificial Intelligence, the machine will enable equipment to capture and balance sales and recycling, as well as streamline forward and invert logistics.

5. CRM and EINSTEIN

Coca cola give leverage to the AI advancement organizations like Salesforce which assembled them an application that causes coca cola to direct inventories all the more productively with this application as opposed to checking stock in coolers individuals presently click an image of cooler and salesforce's AI innovation known as Einstein will at that point include the bottles the cooler and will likewise decide "Coca-Cola" implies it will appear if some other is additionally kept in found cooler.

6. Augmented Reality

Augmented reality (AR) is the concept where computer graphics are overlaid on the user's perspective of this present reality utilizing glasses, headsets is being trialed by various bottling plant far and wide. This enables technician to beneficiary data about devices they are adjusting and acquire reinforcement from specialist at isolated areas who can perceive what they are looking at and helps to analyze and take care of specialized issues. It is additionally used to examine issues with transaction machines and dispenser in isolated or tough to reach sites, which includes cruise ships while they are sailing in sea.

7. Big Data

Coca cola has robust information driven methodology supporting choices appropriate over the commerce and it's a well known fact that they have put broad assets into innovative work in zones like artificial intelligence (AI) to benefit as much as possible from the information it gathers.

This has paid off in various regions, which includes product improvement. In 2017, it was uncovered that the dispatch of novel flavor cherry sprite was propelled by information gathered from those self-benefit drinks wellsprings that allowed customers to blend their own beverages accordingly. Since the equipment suggest a decision of flavor "shots" for customers to add their beverages choices, coca cola could just recognize the mainly famous flavor combination and transform it into instant refreshment for a more extensive gathering of people.

8. Healthy choices

As offers of sweet, carbonated beverage items have turned down in current years. Coca Cola has additionally guided into data to encourage create and advertise a portion of its more advantageous alternative, for example, squeezed orange juice, which is circulated by the company under various brands around the world(including minute maid and simply orange).

The corporation clubs climate data, satellite pictures, data on product yields, price factors and acidity and sugariness ranking, to guarantee that orange harvests are developed in an ideal way, and keep up a predictable flavor.

9. Android pay dispatches in coca cola vending machines

The Coca Cola Corporation reported that by the ending of year 2015, 1, 00,000 of its vending machines would bolster apple pay crosswise over North America. After that android smartphone customers can get the comfort of purchasing a coke and piling on and redeeming my coke rewards (MCR) points-with their gadgets.

Android pay, which was unveiled by Google divulged in a meeting in May 2015, which suggest ease, safety and decision during payment for things with the help of android telephone including soft drinks. Those equivalent 100,000 apple pay empowered equipments which were being taken off were additionally prepared for android pay before the finish of the 2015.

V. CONCLUSION

It all comes to fact of using records, artificial intelligence and connected equipments to serve customers. There is a large digital transformation due to advancement. It's not just about varying the digital experience but also about serving clients in making decisions in a more efficient method. Coca-Cola is one of the several brands across a array of industries grappling as how to serve customers via digital platform and focused on growth and better customer experience. To conclude, the corporation with the prime and the most precise data sets will dominate with the most effective AI algorithms and using big data also. That's where this company can compete like nobody else.

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