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TAG AI CONSULT Newsletter

Capturing the Power of Artificial Intelligence
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MESSAGE FROM THE CHAIRMAN

Artificial Intelligence (AI) has gained grounds in the advancement of technologies and development of smart autonomous applications and devices in industries.

With rapid market shifts towards AI, businesses still cannot keep in pace with accelerating trends and growing professional divide.

We have a mission to achieve, bringing advancement of AI technologies to businesses and building AI capacities to facilitate and enhance business prosperities to capture profit and keep in pace with AI evolution.

Only with consulting support and guidance, AI technologies, applications, and standards for excellence can be re-enforced in the promotion of dynamic and flexible smart and autonomous business environments.



How Coca-Cola is using AI to stay at the top of the soft drinks market



Microsoft study indicates US businesses are slow to adopt AI



TAG AI offers AI CCTV solution



How *Coca-Cola*

is using AI to stay at the top of the soft drinks market



As the world's largest beverage company, Coca-Cola serves more than 1.9 billion drinks every day, across over 500 brands, including Diet Coke, Coke Zero, Fanta, Sprite, Dasani, Powerade, Schweppes and Minute Maid.

Big data and artificial intelligence (AI) power everything that the business does - the global director of digital innovation, Greg Chambers, said: "Artificial intelligence is the foundation for everything we do. We create intelligent experiences. Artificial intelligence is the kernel that powers that experience."

What Problem Is Artificial Intelligence Helping To Solve?

Marketing soft drinks around the world is not a "one-size-fits-all affair". Coca-Cola products are marketed and sold in over 200 countries.

In each of these markets there are local differences concerning flavours, sugar and calorie contents, marketing preferences and competitors faced by the brand.

This means that to stay on top of the game in every territory, it must collect and analyse huge amounts of data from disparate sources to determine which of its 500 brands are likely to be well received. The taste of their most well-known brands will even differ from country to country, and understanding these local preferences is a hugely complex task.

How Is Artificial Intelligence Used In Practice?

Coca-Cola serves a large number of its drinks every day through vending machines. On newer machines, typically the customer will interact through a touch-screen display, enabling them to select the product they want and even customise it with "shots" of different flavours. The company has begun fitting these machines with AI algorithms allowing them to promote drinks and flavours that are most likely to be well received in the specific locations where they are installed.

The vending machines can even alter their "mood" depending on where they are located - with machines in a shopping mall displaying a colourful, fun persona, those in a gym more focused on achieving performance, and those in a hospital appearing more functional.

Coca-Cola also uses AI to analyse social media and understand where, when and

how its customers like to consume its products, as well as which products are popular in particular localities. With over 90% of consumers making purchasing decisions based on social media content, understanding how its billions of customers are discussing and interacting with the brand on platforms like Facebook, Twitter and Instagram is essential to its marketing strategy. To do this, Coca-Cola analysed engagement with over 120,000 pieces of social content to understand the demographics and behaviour of its customers and those discussing the products.

Another application of AI was in securing proof of purchase for the company's loyalty and reward schemes. When customers were asked to manually enter 14-digit product codes printed on bottle caps into websites and apps to verify their purchases, uptake was understandably low due to the unwieldy nature of the operation.

To encourage more customers to engage with these schemes, Coca-Cola worked to develop image recognition technology that allows purchases to be verified by taking a single smartphone picture.

What Technology, Tools And Data Were Used?

Coca-Cola collects data on local drink preferences through the interfaces on its touch-screen vending machines - over 1 million of them are installed in Japan alone.

To understand how its products are discussed and shared on social media, the company has set up 37 "social centers" to collect data and analyse it for insights using the Salesforce platform. The aim is to create more of the content that is shown to be effective at generating positive engagement. In the past, the process of creating this content was carried out by humans; however, the company has been actively looking at developing automated systems that will create adverts and social content informed by social data.

It also uses image recognition technology to target users who share pictures on social media inferring that they could be potential customers. In

Source: <https://www.artificialintelligence-news.com/2019/05/07/how-coca-cola-is-using-ai-to-stay-at-the-top-of-the-soft-drinks-market/>

one example of this strategy in action, Coca-Cola targeted adverts for its Gold Peak brand of iced tea at those who posted images that suggested they enjoy iced tea, or in which the image recognition algorithms spotted logos of competing brands. Once the algorithms determined that specific individuals were likely to be fans of iced tea, and active social media users who shared images with their friends, the company knows that targeting these users with adverts is likely to be an efficient use of their advertising revenue.

For purchase verification, off-the-shelf image recognition technology proved to be insufficient for reading the low-resolution dot matrix printing used to stamp product codes onto packaging. So, Coca-Cola worked to develop its own image recognition solution using Google's TensorFlow technology. This used convolutional neural networks to enable machine recognition of codes that could often appear differently depending on when and where they were printed.

What Were The Results?

Analysis of the data from vending machines by AI algorithms allows Coca-Cola to more accurately understand how the buying habits of its billions of customers varies across the globe.

It uses this to inform new product decisions - for example, the decision to launch Cherry Sprite as a bottled product in the United States was taken because the data showed that this was likely to be a winning initiative.

Computer vision analysis and natural language processing of social media posts, as well as deep learning-driven analysis of social engagement metrics, allows Coca-Cola to produce social advertising that is more likely to resonate with customers and drive sales of its products.

Applying TensorFlow to create convolutional neural networks enabled scanners to recognise product codes from a simple photograph, increasing customer engagement with Coca-Cola's different loyalty programs around the world.

Microsoft

Study indicates US businesses are slow to adopt AI

A Microsoft survey of business leaders from various nations has found US firms are particularly slow to adopt AI technology.

One standout result of the study is that German, British, Russian, Dutch, Swiss, and Italian business leaders are - on the whole - reporting they're "actively implementing" AI ahead of the US.

In fact, of business leaders from the countries surveyed, only France was behind the US.

The survey did not include all countries and is missing several notable countries including the likes of Japan, Canada, and Australia. Of course, the biggest omission is China.

China and the US are leaders in AI development but Microsoft's study indicates that isn't translating into adoption by American businesses.

Another interesting highlight in Microsoft's study is the disparity in adoption between high and low growth companies.

High-growth companies, defined as having double-digit growth, are over twice as likely to be using AI. 41 percent of high-growth companies are using AI compared to just 19 percent of low-growth.

This disparity is most prominent in Germany where 67 percent of high-growth companies are using AI compared to just 17 percent of low-growth.

Susan Etlinger, Industry Analyst with the Altimeter Group, said:

"What's striking about the research is the difference between double-digit growth companies and those with lower growth.

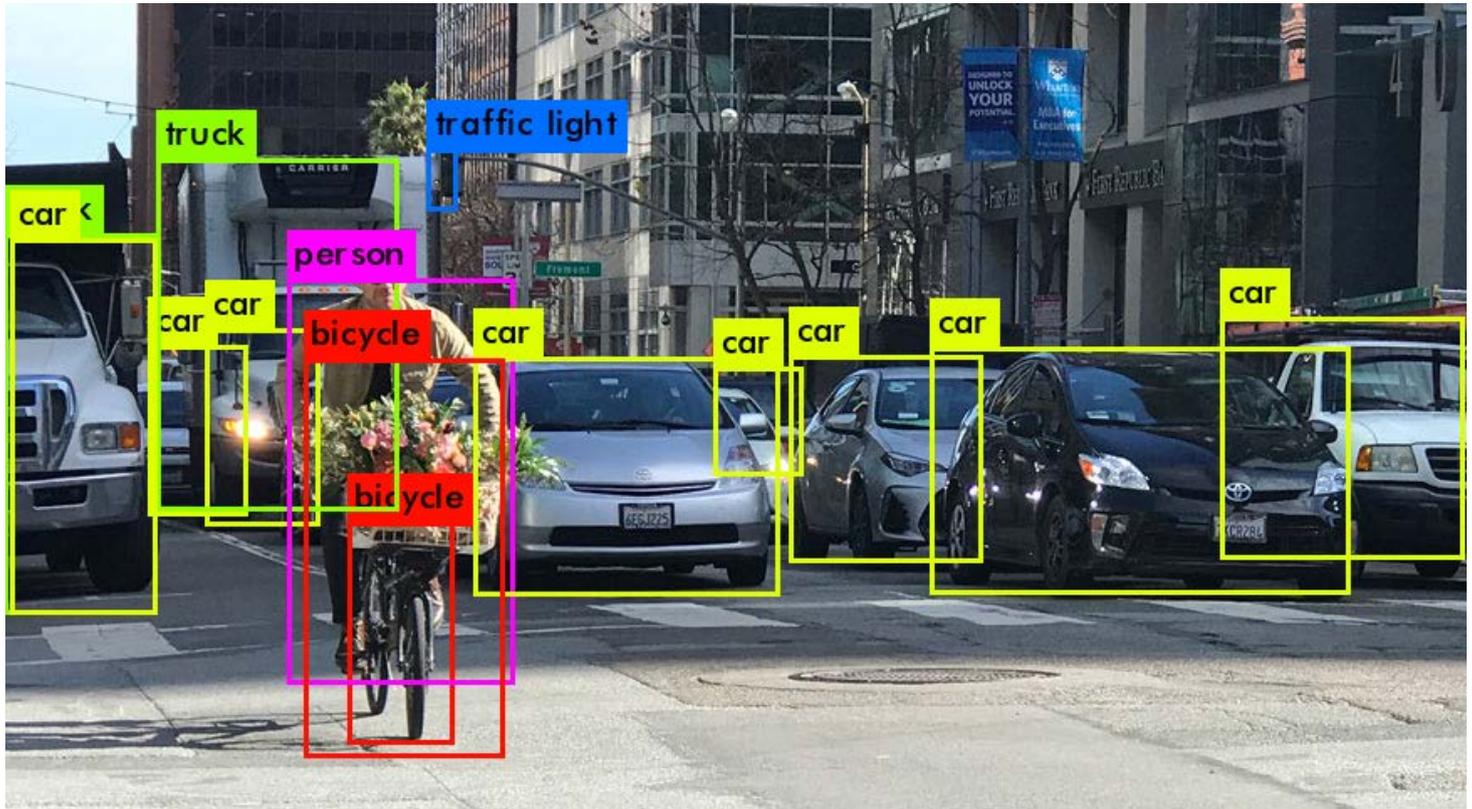


Double-digit growth companies are further along in their AI deployments, but also see a greater urgency in using more AI. They are looking at a one to three year timeframe - often really focused on the coming year. Lower growth companies are looking at more of a 5-year timeframe. What this says to me is that the more you know, the higher your sense of urgency is."

Most of the businesses are either in the 'exploring' or 'experimenting' stages on their AI journey. The competitive advantages to using AI are clear, but it's worth starting small and scaling up deployments over time.

Source: <https://www.artificialintelligence-news.com/2019/03/08/microsoft-study-us-businesses-adopt-ai/>

TAG AI offers AI CCTV solution



TAG AI in collaboration with its partner Fusion Informatics has launched a new Artificial Intelligence Assisted Real-time Video Surveillance System.

The solution allows users to perform real time continuous observation of a place to gather information. It works with any type of surveillance cameras that can provide standard IP based connectivity (TCP/RTSP) to the cameras and thus there is no need for special cameras.

It features AI technology which has been taught to identify common objects in real-time. The system can be customized to recognized a tailored dataset making it a very flexible solution.

Similar solutions have been developed an installed in various intelligence entities globally, technology which TAG AI in now offering to companies globally. The solution can be integrated with

existing systems allowing it to match input to existing databases, allowing for real-time face and object recognition.

The system has a myriad of possible uses including:

- Virtual Fencing
System can identify and notify for any trace passing is likely to be happened and can be used for parking assistance.
- Loitering
System can identify any human loitering around the car, house or any other area or assets. Also it can identify drowsiness while driving or office hours.
- Video Content Analysis
Makes live video actionable, insert dynamic ads



and or alerts for specific events. Can analyze recorded live or video for object identification.

- **Vehicle License Plate Identification**
System can detect and recognize license plates on moving or stationary vehicles. Vehicles can be tracked across multiple cameras or locations.
- **Queue Length Monitoring**
Useful in settings like retail cash-and-wrap registers and airport security lines.
- **Retail Analytics and Visitors' Behavior**
A remote surveillance solution to analyze visitors' behavior by following the movements of people inside venues, identifying and tracking them by their visual appearance, often complementing facial recognition.
- **People Tracking and Multi-person Tracking**
System that enables monitoring people in view of a video camera, and follow their movements or path. Video re-identification allows following specific individuals over time.
- **People Search**
Allows Appearance Encoding, to create applications to enable rapidly searching video streams for instances of people whose appearance matches that of a specific subject.

More information can be obtained by contacting TAG AI Consult at info@tagaiconsult.com

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