

Vertical

DXC's UKI industry perspective

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Welcome to Vertical

Vertical, DXC's UKI industry perspective, is a collection of technology-related industry articles and DXC thought leadership for a variety of industries and sectors. DXC Technology (NYSE: DXC) helps global companies run their mission-critical systems and operations while modernising IT, optimising data architectures, and ensuring security and scalability across public, private and hybrid clouds.

With **Vertical** we highlight innovative and emerging news, regulations, and research – including DXC Technology's thought leadership – that explores new ideas, technologies, and best practices.

Looking across a broad spectrum of industries, from automotive, communication, media and technology, energy and utilities, to travel and transportation, we highlight learnings, synergies and DXC's perspective for navigating these complex industries in complicated times.

The world's largest companies and public sector organizations trust DXC to deploy services to drive new levels of performance, competitiveness, and customer experience across their IT estates. Learn more about how we deliver excellence for our customers and colleagues at DXC.com.

If you have any comments or suggestions, please feel free to contact me.

Happy reading!



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Artificial Intelligence (AI)

Artificial intelligence can help design more appealing cars

MIT: Consumers gravitate toward products that are pleasing to the eye. This is especially true in the automotive industry, where product aesthetics have been linked to roughly 60% of purchasing decisions.

"Styling can make a difference," said MIT Sloan marketing professor John R. Hauser. But styling is expensive: Automakers invest more than \$1 billion to design the average car model and up to \$3 billion for major redesigns.

In a recent paper, Hauser and his co-authors show that machine learning models can both predict the aesthetic appeal of new car designs and also generate new designs that are aesthetically pleasing or innovative.

Working with GM as a research partner, they developed a machine learning model that could create new car designs based on prompts about things like colour and body type and also forecast how consumers will rate designs based on aesthetic appeal.



Automotive

Five automotive trends that will reshape our relationship with cars in the next five years

DXC: How we experience mobility in our cars is changing. A number of exciting innovations in automotive software is set to radically transform the driving experience, from how we access and operate a vehicle, to how it interacts with its users and the environment.

Over the next five years, we believe that these five trends will gain momentum:

1. The software in your vehicle will be as important as its logo.

Tomorrow's cars will be software-defined vehicles (SDVs), with their features and functions controlled by software.

SDVs will be known more for their user experience than their physical attributes. Software will create a direct connection between the car manufacturer and the customer, enabling platform-driven auto businesses which seamlessly deliver personalized services to customers via their vehicles.

In ADAS data collection, you need quality and quantity

DXC: Road testing autonomous vehicles is a very expensive process, involving specialized, certified drivers and unique test cars equipped with small data centers in the trunk and hundreds of sensors. The autonomous driving / advanced driver assistance systems (AD/ADAS) collect vast amounts of data from test cars every day.

The sheer volumes of data, coupled with the need to adhere to rigid customer service level agreements (SLAs), makes the data collection process both complex and expensive. So, it's critical that every test drive results in valuable and reliable data.

There's an old adage that states that for regular data mining, 80% of time is spent on data cleaning. Since AD/ADAS data is being ingested continuously — at petabyte scale, and mostly as binary streams — there is no time for data cleaning. And since the most frequent reason for failed, unusable data is misconfiguration of the source data, it's crucial that we make sure that automotive test data is valid at the source.

This is where data quality assurance comes in.

How Ford and VW's multibillion-dollar self-driving car project failed

CNBC: In 2017, automakers were scrambling to develop cars that could drive themselves. Ford Motor bet a billion dollars on a startup called Argo AI to catch up to flashy tech companies like Google, Uber and Tesla. Volkswagen, the second-largest automaker in the world, signed on as a backer in 2019, investing \$2.6 billion Argo AI at a valuation of more than \$7 billion.

By 2021, Argo AI was valued at \$12.4 billion and counted 2,000 employees, with offices on two continents and self-driving tests underway in seven cities.

There were plans to bring a self-driving taxi service to market by 2021, rivalling those by Waymo and Ford's larger Detroit rival, General Motors. But in October 2022, Argo AI shut down.

It was another sign that after years of big investment, investors were reining in expectations and money was drying up.

After a rush of enthusiasm, self-driving projects have grown besieged by the challenge of developing needed technology and establishing a business model that's sufficiently profitable to justify the billions they spend.

Ford seeks patent for cars that ditch you if payments missed

The Register: A patent application from automaker Ford was published [in February] for embedded vehicle systems that facilitate an automobile's repossession, including autonomously moving it to a repossession agency.

The patent, which was filed in August, covers more ways to combat non-payment. The least intrusive is a helpful message delivered to the vehicle or a smartphone notifying the user of the delinquency.

If notices go unacknowledged, the system can disable select functionalities of the vehicle or even lock the vehicle out entirely – save for a medical emergency where it could potentially travel to a hospital or ambulance meeting spot autonomously.

For autonomous cars and trucks, why stop at rendezvousing with emergency vehicles? The patent also outlines the system's capability to move that vehicle to a parking spot more convenient for towing, as well as just relocating it off private property or other inaccessible areas. As mentioned, it could also move itself to a repossession agency or junkyard.

Tesla's self-driving code may ignore stop signs, act unsafe. Patch coming ... soon

The Register: The US National Highway Traffic Safety Administration (NHTSA) has sent Tesla a letter in which it acknowledges Tesla will conduct a recall of the Full Self Driving Beta (FSD Beta) software in up to 362,758 cars, as the software is unsafe.

The issue affects the Model S, Model X, Model 3, and Model Y vehicles, some dating back to 2016.

The NHTSA asserts the software's bugs mean it "may allow the vehicle to act unsafe around intersections, such as traveling straight through an intersection while in a turn-only lane, entering a stop sign-controlled intersection without coming to a complete stop, or proceeding into an intersection during a steady yellow traffic signal without due caution.

"In addition, the system may respond insufficiently to changes in posted speed limits or not adequately account for the driver's adjustment of the vehicle's speed to exceed posted speed limits."



Cybersecurity

CISA Director Calls Out Industry Using Consumers as Cyber 'Crash Test Dummies'

Nextgov: Technology companies need to take more responsibility for the safety and security of their products to better protect consumers from cyber threats, Cybersecurity and Infrastructure Security Agency Director Jen Easterly said during a speech at Carnegie Mellon University [February 27].

The remarks came after Easterly and Eric Goldstein, CISA's executive assistant director for cybersecurity, wrote a Feb. 1 article for Foreign Affairs that warned that "the incentives for developing and selling technology have eclipsed customer safety in importance."

In her speech, Easterly said that the lack of built-in safety features in today's products and devices is helping to facilitate crippling cyber and ransomware attacks—which have been affecting consumers and school districts, pipelines, and hospitals alike in recent years—calling these intrusions "a symptom, rather than a cause, of the vulnerability that we face as a nation."

Former Facebook Security Chief Sounds Off on the Case that Rocked the Cybersecurity World

Note: The article requires a subscription

Law.com: A jury found former Uber security chief Joseph Sullivan guilty of covering up a 2016 data breach, in an unprecedented prosecution of a company executive. Sullivan is set to be sentenced on May 4 and faces significant jail time. Former Facebook security chief Alex Stamos said the prosecution sets a terrible precedent.

Companies of all sizes are under assault from sophisticated ransomware groups, and the government's recent prosecution of a former Uber executive for failing to disclose a data breach to law enforcement has company executives, and security chiefs in particular, anxious that they might be next.

Alex Stamos, former chief security officer at Facebook and now director at the Stanford Internet Observatory, said [Tuesday 7] that the unprecedented criminal case against ex-Uber security chief Joe Sullivan, the first of its kind against a company executive, is problematic on several fronts.



DXC Technology

How to remove bumps in the supply chain of the future

DXC Leading Edge: A series of momentous events — the global pandemic, labor shortages, and Russia's war on Ukraine, to name a few — continue to expose vulnerabilities in the global supply chain.

Once, we treated these as isolated, black-swan events but we've seen the end of those days. The recent past makes clear the risks of an interconnected world of supply and demand, where upsets in natural resource availability, politics and other evolving global factors run up prices and cause delays.

It's clear the supply chain exerts exponential power to shape an organization's outcomes and sustainable progress.

At DXC Leading Edge we're completing our latest cross-industry population study to examine changing business practices. One of the most significant highlights — which echoes our prior research — is the need to rethink supply chains from a one up / one down model (i.e., who we sell to, who we buy from), to modelling the entire supply chain.



ESG

Driving better insights for ESG decision makers

DXC Leading Edge: Reaching ESG goals with improved data strategies and next-gen technologies.

For business executives, there is no path forward that doesn't have sustainability as a core tenet. Sustainability remains one of the highest business priorities for executives, no matter the industry in which they work.

As such, every leader in business has also effectively become an environmental, social and governance (ESG) decision maker, from the CEO on down. The situations differ, but for each leader, the importance remains high. This is the case, for example, for CFOs seeking capital from ESG fund managers, chief people officers promoting workforce diversity, and logistics leaders improving environmental compliance across supply chains.

Yet the efforts of many organizations are hindered because they lack the real-time, analytical data and deep insights required to make effective decisions. This ESG void subverts the ability to address outcomes and business performance in tandem.



Logistics

Amazon's delivery drones served fewer than 10 houses in their first month

The Verge: It's been nearly a decade since Amazon's Jeff Bezos [promised us delivery drones](#), but they aren't off to a particularly impressive start. Roughly a month after Amazon Prime Air made its first deliveries in California and Texas, it'd served fewer than 10 households — and it's already laid off more than half the employees at those locations.

That's according to a pair of new reports at *The Information* and *Business Insider*, and Amazon isn't denying it. Amazon spokesperson Maria Boschetti didn't contest those numbers in an email to *The Verge* when we asked. But she also said that Prime Air is actually working to expand drone deliveries in both California and Texas, with the FAA's approval.

And there may be a very good reason why Amazon doesn't have a lot of customers for drone deliveries quite yet, as *The Information* points out: **Amazon's drone isn't allowed to fly over roads by itself.**

Uber Is Considering Spinning Off Freight Logistics Division

Note: The article requires a subscription

Bloomberg: Uber Technologies Inc. is exploring whether to spin off its Uber Freight logistics arm in a sale or as a separate publicly traded company to

streamline its focus on ride hailing and food delivery, according to people familiar with the matter.

The company is discussing its options with potential advisers, said the people, who asked not to be identified because the plans are private. A decision by Uber on the freight unit isn't imminent and the company's plans could change, the people added. An IPO is the more likely outcome, one of the people said. If the company lands on an IPO, it may not happen until next year and will depend on market conditions, another person said.

An Uber spokesman declined to comment on what he called rumours and speculation. Uber Freight faces a more challenging outlook than other divisions of the company.



Retail

Merchants must make better use of data to stay relevant in the new retail world

DXC: Retailers have gotten good at collecting customer data. But few have figured out how to monetize the insights gained from that data.

Some leading retailers have implemented modern data platforms that harness AI, machine learning and a portfolio of engineered applications to produce insights into the retailers' workforces, inventories, and customers.

The need for all retailers to take advantage of these platforms to make more effective use of data is urgent. New consumer habits have emerged, requiring retailers to renew their focus on faster and easier delivery options that help consumers along their buying journey. In addition, it's estimated that as many as seven in 10 adults are now omnichannel consumers, which creates challenges in areas including customer purchase order synchronization and order fulfilment. And competitors with new business models are emerging, enabled by technological advances that have lowered barriers to entry.

Beyond retail: Why retailers should think 'services' and 'ecosystems'

McKinsey: For retailers, service businesses represent a tremendous growth opportunity—and a way to start building ecosystems that satisfy more of consumers' needs.

The retailer of the future doesn't just sell products on shelves—it offers services that affect many parts of consumers' lives, from their healthcare and finances to their travel and entertainment choices. Indeed, today's retailers would do well to venture beyond the traditional bounds of retailing if they hope to remain relevant and competitive in the years ahead.

The following are excerpts from a recent McKinsey webinar on how retailers can expand into service businesses and, ultimately, build ecosystems that

DXC Perspective

As a leading technology services company, DXC understands the importance of creating innovative solutions that go beyond traditional retail offerings. We agree with McKinsey's perspective on the importance of developing services and ecosystems that offer customers a more comprehensive experience. In today's fast-paced digital world, retailers must continuously evolve to meet customers' changing needs and preferences. DXC is committed to working with retailers to develop customized solutions.

Teodora Damyanova
Account Executive
DXC Technology

attract and retain loyal customers. Speaking at the webinar were Marco Catena, a McKinsey partner based in Milan who leads an initiative called "Beyond Retail"; Richard Mayfield, a former regional CEO at Walmart and CFO at Asda; and Rakhi Williams, formerly a strategy executive at Tesco.



DXC events

[transport logistic 2023 | 9 – 12 May 2023 | Munich](#)



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If you have any questions about **Vertical** or about any of the topics covered in this issue, please feel free to contact your DXC representative.

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