



## NEWS HIGHLIGHTS

Fintech companies in search of a plan B after Aadhaar data blockade

Facebook reorganizes Oculus to further its AR/VR goals

HSBC, ING execute blockchain-enabled trade finance transaction for RIL

NDMC launches QR-enabled fridge magnets for digital payment of bills

## Today's View

### Smart Aqua-farming

Discovered around 4,000 years ago in China, aqua-farming is now the fastest-growing animal food production sector in the world. For the first time in history, the consumption of farmed fish has exceeded that of wild-caught fish and by 2030, aqua-farming is expected to account for two-thirds of the fish that humans consume.

The increased demand for fish has put a strain on resources and viable practices among fisheries, requiring the innovative use of existing and new technologies. Fortunately, there is great potential to match this demand sustainably, particularly through the advent of technology like artificial intelligence (AI). A smartphone-based AI system may help remotely manage aqua farms by monitoring water, temperature, oxygen and food conditions etc. through sensors and automatically taking preventive measures.

Several aquaculture technology companies are harnessing the power of AI to improve decision-making. For instance, San Francisco based **Aquabyte** builds various products for aquaculture farms using machine learning platform and smart camera system. Aquabyte offers many applications like real-time sea lice counting, biomass monitoring, and appetite detection making fish farms more efficient, sustainable, and profitable.

In order to observe fish behaviour and allow for optimal feeding processes, Norwegian technology firm **CageEye** has developed a new hydro-acoustic

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### E-commerce firms ended FY18 with mounting losses

The top three e-commerce companies in India — Flipkart, Amazon and Paytm Mall exited FY18 with mounting losses even as their revenues grew, underlining that these companies do not intend to hold back on expenses as they race to capture a large piece of the Indian e-commerce market.

All Boxed Up				
FINANCIALS	FLIPKART REVENUE IN FLIPKART INDIA	AMAZON SALES SERVICES	PAYTM MALL	
Total Revenue	+24,717cr	+5,018cr	+774.86cr	
Losses	-3,222cr	+6,287cr	+1,787.55cr	
Advertising expenses	-740cr	+2,109cr	+944cr	
Employee benefits expenses	+1,319.5cr	+1,042cr	+158.7cr	
Logistics expenses	-891cr	+2,957cr	NA	
<b>TOTAL EXPENSES</b>	<b>-27.491cr</b>	<b>-11,305cr</b>	<b>+2,581.3cr</b>	

Source – The Economic Times

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Date – 05<sup>th</sup> Nov 18

system. The system monitors the noises generated during fish feeding, so a reduction in noise is used as an indicator of reduced fish appetites as they swim away from the feed. According to the company, leveraging AI in this way could save Norwegian fish farm's \$165.5 mn a year in reduced pellet wastage.

Even robotic applications have also created a place in aqua-farming. A robotic fish known as **Shoal** uses AI, or swarm intelligence (SI), to detect pollution underwater. The robots are sent out as a group and are able to navigate their environment, avoid obstacles, including those of other robotic fish, recharge themselves at charging stations and generally make decisions autonomously for humans.

Moreover, the Seafood Innovation Cluster launched the **AquaCloud platform**, which aims to help managers, researchers and scientists gain new insights through its massive data collection and analysis. The platform uses AI to aid in the monitoring of infestations' development and spread within the environment, effectively promoting more effective area management systems for the control of pathogens.

Being one of the fastest growing sectors of food production, it has the potential to offer a meaningful solution to global food deficit. Although initial acceptance of this technology is slow due to high short-term expenses and uncertainty surrounding its effectiveness, it is inevitable that this technology will draw the attention of market players looking to stay competitive in the market, in terms of both price and productivity.

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## Today's News

### Fintech companies in search of a plan B after Aadhaar data blockade

With Fintech players being completely blocked out of the Aadhaar authentication infrastructure, the fledgling industry is trying to develop alternative mechanisms of using technology to authenticate its customers. While awaiting instruction from the Reserve Bank of India on acceptable ways to do KYC post the Supreme Court's judgement on Aadhaar, they are trying to work out means around digital KYC. "All eKYC authentication is stopped now, we are trying to develop our own means of getting KYC done with physical documents by using technology so that cost can be reduced," said a top executive of a payment company on condition of anonymity.

Source – *The Economic Times*

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### Amazon goes shopping for Future Retail, to buy 9.5% stake

Amazon is set to acquire a minority stake in Future Retail next week, potentially giving the e-commerce platform access to nearly a third of the country's organised food and grocery market through the Big Bazaar and Nilgiris supermarket chains and other outlets. The deal by Amazon's investment arm is pegged at about Rs 2,500 crore. Future Retail has more than 1,100 physical stores across India.

Source – *The Economic Times*

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This News Letter has been prepared with the assistance of G Balakrishna and Pankaj Tadas

### RBI starts process to set up digital Public Credit Registry (PCR) for capturing all details of borrowers

The RBI has initiated steps to set up a wide-based digital PCR to capture details of all borrowers, including wilful defaulters and also the pending legal suits in order to check financial delinquencies. The PCR will also include data from entities like SEBI, the corporate affairs ministry, GSTN and the Insolvency and Bankruptcy Board of India to enable the banks and financial institutions to get 360 degree profile of existing and prospective borrowers on a real-time basis.

Source – *The Economic Times*

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### To improve weather forecasting for farmers in India, IBM is relying on AI

Government policy think tank NITI Aayog signed a deal with IBM India Pvt. Ltd to develop a prediction model for crop yields using AI. As part of the first phase, the organizations are jointly developing this predictive model for 10 "aspirational" districts across the states of Assam, Bihar, and Jharkhand etc.

Source – *Mint*

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### Startups take desi foods like vada pav abroad

Global demand for Indian flavours and scope of higher profitability are urging more Indian food startups to gun for foreign shores. After Gurgaon-based startup Burger Singh started operations in the UK, it's the turn of two more startups specialising in Indian food to expand overseas.

Source – *The Economic Times*

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## Facebook reorganizes Oculus to further its AR/VR goals

Facebook has reorganized its augmented reality and virtual reality teams from a product-focused divisional structure to a functional structure that focuses on technology areas of expertise. Facebook confirmed the development to the publication "We made some changes to the AR/VR organization earlier this week. These were internal changes and won't impact consumers or our partners in the developer community" a spokesperson said.

Oculus CTO John Carmack and Oculus co-founder and newly-promoted Head of PC VR Nate Mitchell will however remain in their leadership positions and no one was laid off, the report said. This move comes a fortnight after Oculus co-founder Iribe left Facebook, joining the exodus of top executives to leave the company. His departure came two and half years after Facebook parted ways with Oculus' other co-founder, Palmer Luckey.

Source – *The Economic Times*

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## HSBC, ING execute blockchain-enabled trade finance transaction for RIL

In a first of its kind, HSBC India and ING Bank Brussels have executed a blockchain enabled, live trade finance transaction with Reliance Industries and Tricon Energy. The blockchain enabled Letter of Credit (LC) transaction facilitated the shipment between Reliance Industries and Tricon Energy, USA. ING Bank issued the LC for Tricon Energy and HSBC India was the advising and negotiating bank for Reliance Industries. The end-to-end transaction was executed on R3's Corda blockchain platform.

At present, physical copies of LCs are sent to each party in the transaction by post, courier or fax. "This transaction validates the commercial and operational viability of blockchain as an alternative to conventional exchanges for paper-based documentation," HSBC India said, adding that time and cost involved in processing paper documents are often are deterrents for exporters and delays the pace of trade.

Source – *BusinessLine*

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## NDMC launches QR-enabled fridge magnets for digital payment of bills

The New Delhi Municipal Corporation (NDMC) launched a "smart" initiative wherein it will distribute quick response-enabled smiley fridge magnets to its consumers to facilitate digital payment of utility bills. Powered by SignCatch - an IT and services company, the magnets will be personalised and each customer will have a unique QR Code mapped to their consumer account number, an NDMC statement said. "There will be separate magnets provided by the NDMC to its consumers' doorstep for both electricity and water bills," it added. The consumers, an NDMC official said, can stick these magnets on their refrigerators at home and use their smartphones to scan the QR Code on the magnet to pay their bills instantly.

Source – *Business Standard*

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## AI system decodes causes of religious conflict

Scientists have developed an artificial intelligence system that can help better understand what triggers religious violence. The study, published in *The Journal for Artificial Societies and Social Stimulation*, focuses on two cases of extreme violence, firstly, the conflict commonly referred to as the Northern Ireland Troubles, which is regarded as one of the most violent periods in Irish history.

Source – *Financial Express*

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## Video games are following TV & music to the cloud

Video games are following television and music into the cloud, with console-quality play on its way to being a streaming service as easy to access as Netflix or Spotify. Computing power in data centers and devices from televisions to smartphones has surged and streaming technology has advanced, providing tools to break blockbuster titles from confines of consoles or personal computers.

Source – *The Economic Times*

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## A \$6 trillion barrier holds electric cars back

The good news is the death of the internal combustion engine is nearing and electric-vehicle sales are on a tear. Countries that together account for more than 10 percent of global auto sales have detailed plans to phase out conventional gasoline-powered cars. Include China, and that jumps to 40 percent.

Source – *The Economic Times*

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