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Twimbit AI Radar

Roundup of innovative enterprise deployments and announcements

#5 **Telecom Edition**

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Twimbit is a research and advisory firm driven by a singular mission: to empower businesses that are making a difference. We specialise in providing invaluable industry intelligence to executives and teams, acting as a catalyst for innovation and growth.

Table of Contents

Summary

This article is part of the monthly AI Radar series, providing a recap of innovative AI deployments and related company announcements in telecommunications, financial services, and customer experience field of practice. It also offers insights into companies deploying AI, aimed at assisting business executives and technology leaders develop their own AI projects and long-term strategies.

Company(s)	Deployment/Initiative
AT&T aira	AT&T and Aira created an AI wearable for people with low vision, featuring AR glasses and the AI platform Chloe to read text aloud. This targets prescription drug users and seniors without smartphones, expanding AT&T's health-tech presence.
Deutsche Telekom Fraunhofer IPM	Deutsche Telekom uses AI to optimize fiber optic planning, analysing data with an ANN to identify the best routes. This process reduces planning time by 75% and improves deployment efficiency.
airtel	Airtel developed IQ Spam Shield, which is AI/ML based detection where algorithms and social graph-based fingerprinting differentiate legitimate and spam messages.
Globe NOKIA	Globe Telecom improved network efficiency and sustainability with Nokia's AVA Energy Efficiency software, saving 3% to 8% in energy and reduced CO2 emissions by 139 metric tons.
Singtel netomi	Singtel and Netomi's AI partnership automated email ticket resolution, cutting response times to seconds and reducing costs by 30%, achieving a 96% customer satisfaction score and 15-second average response time.

Introduction

In today's rapidly evolving technological landscape, AI is revolutionizing how companies operate, enhancing both speed and efficiency across a multitude of applications. It's remarkable capabilities extend far beyond traditional functions, playing a pivotal role in character recognition tasks, optimizing fibre optic cable routes, and personalising market offerings. In certain telcos, AI also automates radio configurations, safeguarding customers against spam messages, reducing infrastructure energy consumption, and enhancing marketing and call centre operations, underscoring its vast potential.

As industries swiftly adapt to these advancements, the transformative impact of AI on improving organisational performance becomes increasingly evident. Companies are now leveraging AI to achieve unprecedented levels of productivity and innovation. By incorporating AI into operations, businesses are not only enhancing their efficiency but also driving significant improvements in customer experience and operational effectiveness.

With AI at the forefront of technological progress, telcos are embracing this powerful tool to stay competitive, reduce cost and meet the ever-changing demands of the market. The future promises even greater integration of AI, paving the way for a new era of enhanced performance and growth.

This month's AI radar dives deeper into the different innovative ways telecom companies are using AI to create impact and progress. The report will showcase how leading firms are implementing AI to advance their operations and achieve tangible business outcomes.

AT&T collaborates with Aria to create "Hey Chloe".

AT&T, through the AT&T Foundry, partnered with California-based Aira to develop an AI-driven wearable solution for people who are blind or have low vision, assisting them in reading important texts like medication labels. The AT&T Foundry network of innovation centers facilitate rapid development of new applications, products, and services by leveraging shared resources and expertise, accelerating ideas to market 3x faster.

Aira's system uses AR smart glasses equipped with a camera, enabling users to connect with remote agents via a cell phone. These agents can see the user's surroundings and assist through an earpiece with tasks like crossing streets, reading stories, and identifying medications.

To address the significant need for medication recognition, AT&T created an AI platform named Chloe, which reads and relays text to users through an earpiece. Users activate Chloe by saying "Hey Chloe, read this" while holding the text in view of the camera.

This solution specifically targets approximately 201 million Americans who take prescription drugs and 38 million U.S. seniors without smartphones. Medication recognition is highly requested among Aira's customers, indicating strong market demand. This collaboration allows AT&T to diversify its offerings and establish a presence in the growing health-tech sector, opening new revenue streams and market opportunities.

Deutsch Telekom uses AI for fiber optic cable routes.

Deutsche Telekom employs advanced AI to streamline fiber optic planning and expansion. Their artificial neural network (ANN), developed by Fraunhofer IPM, analyzes geospatial data from T-Surface cars that capture high-resolution images and 3D point clouds. The ANN classifies this data into surface types like asphalt, pavements, and streetlamps, creating detailed 2D images to pinpoint optimal fiber layout routes.

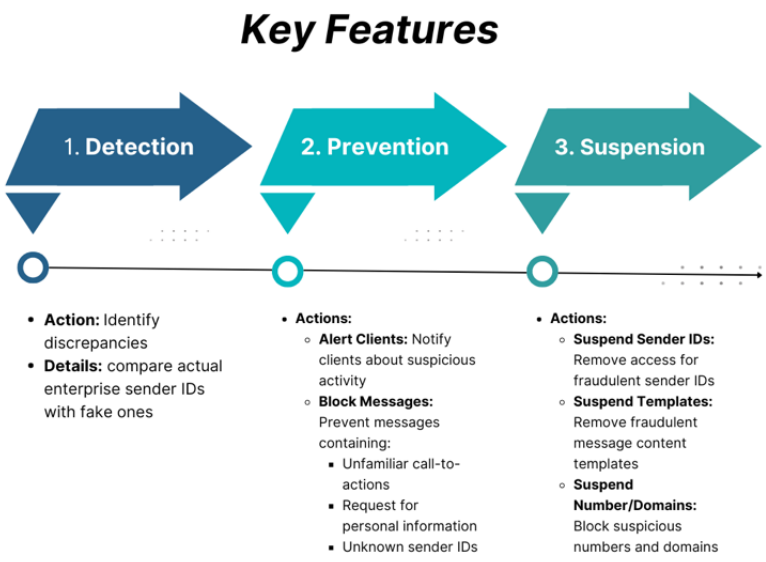
Geospatial Data Infrastructure (GDI) integrates diverse data sources, including cadastral data, aerial photographs, and satellite imagery, which are processed in Deutsche Telekom's Open Telekom Cloud. This cloud-based approach, using GPUs and CPUs, offers flexibility and cost efficiency compared to in-house data centers.

The AI speeds up the planning phase by evaluating approximately 333,000 potential routes, reducing planning time by up to 75%. This efficiency supports Deutsche Telekom's goal of increasing fiber-to-the-home (FTTH) connections significantly, providing customers with faster high-speed internet and accelerating the rollout process.

Airtel developed IQ SpamShield.

HDFC Bank, one of India's leading banks, partnered with Airtel who developed IQ SpamShield, an AI based platform that detects, prevents and suspends any fraudulent messages for banks or fintech companies to drive safe engagement.

This was done to protect customers from spam messages which often originated from fake numbers and contained links that stole money from accounts. Numerous customers were scammed, leading to increase refund requests and diminished trust in the bank's security. SpamShield detected and prevented spam messages by utilizing advanced algorithms and social graph-based fingerprinting, where the system distinguishes between legitimate and spam messages.



Airtel IQ SpamShield ensures secure connectivity by establishing direct MPLS connections are established between enterprises and telecom operators to prevent data tampering. It also encourages collaboration by sharing fraudulent details with enterprises, government agencies and other telecom service providers. Additionally, the system ensures compliance by whitelisting templates and approving sender IDs are DLT for messages sent through secure nodes only.

Airtel IQ SpamShield has achieved a 98% reduction in spam, which has dropped from over 2 million to nearly zero spam messages per day within a month. It has blocked over 8,000 suspicious SMS headers and 160,000 potential frauds, protecting an estimated 20,000 consumers daily from potential scams. It also protects customers from A2P (application to person) and P2P (person to person) fraud or spam messages. Overall, over 1,230,000 templates to date, including those that could potentially misuse the HDFC brand name.

Globe Telecom uses AI to reduce energy consumption.

Globe Telecom has significantly improved network efficiency and sustainability through using Nokia's AVA Energy Efficiency software to reduce power consumption and energy costs. Globe Telecom implemented AI and machine learning energy management system across its wireless access networks. This in efforts to reduce energy consumption, lower operational costs and help mitigate climate change.

The suite of technologies at Globe's base stations has achieved 3% to 8% energy savings by using AI/ML to learn and optimize each network element's energy usage without affecting performance. The SaaS solution forecasts network usage and

adjusts power-saving parameters to switch off idle equipment, improving energy efficiency beyond typical off-peak hours.

Globe's AI-driven energy management initiatives resulted in substantial savings, with the company recording approximately 187,774 kilowatt-hours of energy savings. This reduction in energy usage directly translated to a significant environmental impact, helping Globe avoid 139 metric tons of carbon emissions.

Singtel uses AI for marketing and customer support.

Singtel partnered with Netomi to enhance its marketing communications by developing new campaigns and accelerating testing processes with AI. This partnership has led to a significant decrease in email ticket resolution time, lessened time-intensive and mundane work from employees and lowered operating costs.

Netomi’s powerful AI platform helps Singtel resolve an array of customers questions in seconds, such as applying for a new line, renewing a contract, changing a delivery time or activating a new roaming plan. Previously, email was one of the highest volume channels for Singtel, with an average resolution time of over 24 hours. Singtel recognized that many emails involved high repeatable scenarios, which led to Singtel launching its virtual agent via email.

With the new platform, Singtel can completely automate complex requests, like activating a new plan, in a matter of seconds which used to take employees over 10 minutes. This is achieved through integrating with back-end systems and complex training and logic. The AI is trained to route very specific cases and customers to human agents immediately, based on various factors and real time data pulled from the CRM and 15 other back-end systems. This ensures that the customer experience is never compromised, and their requests are resolved in a personalized manner — resulting in 96% average customer satisfaction score, 15 second average response time and 30% reduction in costs.

How can businesses use AI to boost growth and enhance customer experience?

AI empowers businesses to streamline repetitive tasks, enhance efficiency, and reduce human error. To integrate AI effectively, start by identifying key areas where it can provide the most significant benefits. Collaborate with AI experts for guidance and technology and invest in training to equip employees with necessary skills.

Continuously monitor AI's performance to ensure it meets goals and improves customer experiences, adjusting as needed.

To maximize AI's potential:

- **Explore new markets and services:** Like AT&T's expansion into healthcare, use AI to enter new sectors or innovate services by addressing unmet needs.
- **Optimize operational efficiency:** Implement AI for tasks such as network planning and cost reduction, as seen in AI-driven infrastructure optimization that boosts service quality and profitability.
- **Accelerate sustainability efforts:** Improve energy management and reduce environmental impact, like Globe Telecom's AI-driven sustainability initiatives that enhance reputation and efficiency.
- **Enhance customer experience:** Use AI to speed up and refine service delivery, allowing staff to tackle more complex issues, as demonstrated by Singtel's AI platforms that streamline customer interactions.