Twimbit AI Radar

Roundup of innovative enterprise deployments and announcements

#1   **Telecom Edition**

twimbit

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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
indosat OOREDOO HUTCHISON / Tech Mahindra	Indosat and TechM collaborated to create Garuda, an LLM trained in Indonesian language to enhance Gen AI applications in health, e-commerce, education, and finance, focusing on customer support and content creation with specialized LIMA method for fine-tuning.
Telkomsel / Google Cloud	Telkomsel leverages Google Cloud's Vertex AI to enhance employee support and network planning, develop a Gen AI-powered conversational agent, and innovate in customer and content management through myEnterprise and RCS Business Messaging.
BT aws	BT Group enhances developer productivity by implementing Amazon CodeWhisperer to automate code generation and establish strong safeguards for data privacy and intellectual property compliance.
Telstra / Azure	Telstra advances customer service efficiency with Azure OpenAI solutions like "One Sentence Summary" and "Ask Telstra" for consolidating customer histories and facilitating internal knowledge searches.
e& etisalat and	e& UAE innovates retail with EASE, the world's first autonomous telecom store, using AI technologies like facial recognition and smart machines to offer a seamless, self-service shopping experience.

Introduction

In today's digital age, consumers expect more than just network connectivity; they seek integrated and value-added experiences that meet their evolving needs. This shift is driving Telcos to transform into TechCos, extending their offerings beyond traditional services to include digital solutions like automation, IoT, security, lifestyle, and gaming across global markets. These advancements not only open new revenue streams but also play a crucial role in enhancing customer retention, especially during periods of stagnant or declining Average Revenue Per User (ARPU).

To thrive in this new landscape, Telcos are enhancing their services with new technology to bring new levels of engagement and personalisation. Industry leaders are first to transition and build new business models and revenue streams, creating platforms centered around key focus innovations. A significant area of focus is the exploration of new technologies, such as Generative AI, which holds the potential to revolutionize customer experiences, improve prospect conversion, and uncover new cross-selling opportunities through intuitive digital interactions across multiple channels and platforms.

As highlighted by many of the announcements during the recent Mobile World Congress (MWC), the premier global platform for showcasing Telco innovations, here is this month's AI Recap in the telecom sector:

Indosat and TechM partner to build LLM.

The two companies joined forces to develop Garuda, a large language model (LLM) that is trained with over 100GB of data and fine-tuned to understand the Indonesian language and its dialects, enabling various applications across industries, including health care, e-commerce, education, and finance, enhancing customer support, experience, and content creation. Garuda is expected to feature 16 billion original Indonesian tokens, trained using RLHF techniques providing 1.2 billion parameters, and is built with similar principles as LLM Project Indus, India's own LLM. It is trained on 48 A100 GPUs and its 2nd version will feature 4 billion parameters with 82 billion tokens (over 350GB).

Specialised use cases for Garuda such as national ID identification, municipality taxation and name & address change process will be developed using the LIMA method which is a fine-tuning approach that consumes lesser data for better outputs. While this partnership signals a bright future for the technological landscape in Indonesia, the two parties will work closely with expertise in the field to ensure the availability and quality of local contextual data needed to revolutionise such a crucial language understanding technology that can enable impactful solutions for the Indonesian market.

Telkomsel and Google Cloud partner for Enterprise Gen AI.

- Leveraging Google Cloud's Vertex AI platform and foundation models, Telkomsel is building and integrating a Gen AI-powered conversational agent into the MOANA app for more than 6,000 employees. This conversational agent will offer employees real-time support and on-demand guidance—with links to relevant information sources, helping them navigate internal news and company policies, perform HR-related tasks like requesting for leave, and access various other internal services.

- Additionally, Telkomsel is transforming its network planning with an AI solution that analyzes data from cellular towers and fiber optic systems to provide recommendations in natural language for identifying connectivity gaps and planning future network infrastructure expansion.
- Telkomsel is enhancing its MyTelkomsel with Gen AI-powered search assistants that offer intuitive auto-completion, natural language understanding, and personalized search results, transforming keyword searches into conversational exploration.
- For its corporate clients, the search assistant on myEnterprise acts as an intelligent helpdesk, helping B2B customers manage their accounts, make faster decisions, discover optimal mobile plans, spot cost-saving opportunities, compare products, and troubleshoot connectivity issues.
- Telkomsel is also developing a new Gen AI-powered content management system for RCS Business Messaging (RBM) services. Integrated with Telkomsel MyAds, this system will enable corporate clients to use interactive Rich Communication Services (RCS) conversations for marketing, replacing traditional text-based SMS with content that includes text, image, audio, and video.

BT boost developer productivity with Gen AI.

BT Group's Digital Unit implemented the AWS platform Amazon CodeWhisperer that provides real-time AI-powered code suggestions, from snippets to full functions, in multiple integrated development environments (IDEs) to its product development team. It leverages natural language comments and existing code to support coding in 15 different languages. Users are receiving an average of 15-20 code suggestions per day, with an acceptance rate of 37 percent.

In its first four months, BT leveraged the tool to generate over 100,000 lines of code and automated roughly 12 percent of repetitive work for an initial group of volunteers. BT has now expanded access to 1,200 engineers across the business. As BT leverages a SaaS-type software for its AI tooling transformation, they have implemented comprehensive safeguards to ensure transparency, accountability, intellectual property compliance, and data privacy, which includes:

- **Guardrails**: A set of clear company guidelines for the software engineering and development teams.
- **Learning and onboarding**: Custom training modules and onboarding sessions on BT Group's Digital Campus platform.
- **Data control and openness**: Control processes and transparent communication regarding training data to manage intellectual property risks.

Telstra takes AI experiments forward.

Telstra expanded two in-house developed Gen AI solutions following promising pilots with frontline team members, enabling faster and more successful interactions with customers.

- Utilising Azure OpenAI's large language model, "One Sentence Summary" transforms customer notes, interactions, and transactions into a concise summary of a customer's recent history and status. The solution enhances the efficiency and quality of interactions, reducing the need for customers to repeat information. The trial resulted in 90% of employees reporting time saving with 20% less follow up engagement with customers.
- Ask Telstra enables employees to search the company's extensive internal knowledge bases quickly and easily for information. Powered by Microsoft Azure OpenAI Service and Azure AI Search, Ask Telstra gives AI generated responses to employee queries, presented via a simple search interface. Over 80% of employees agreed that it has a positive impact on customer interactions, allowing them to more quickly and easily gather information to support queries.

On top of the partnership with Microsoft, Telstra works with Accenture to migrate workloads to the public cloud and build reusable AI capabilities that put them in a position to now rapidly scale bespoke generative AI tools, like Ask Telstra and One Sentence Summary.

e& launches AI store.

e& UAE launched EASE (Etisalat by e& Autonomous Store Experience) which is the world's first autonomous telecom retail store, leveraging AI to revolutionize the shopping experience. With technologies like facial recognition, smart gates, robotics, smart shelves, and smart dispensing machines, visitors can effortlessly purchase products and services with a seamless self-checkout process, eliminating any waiting time.

e& collaborated with SPAN and Cleveron to tailor customer journeys based on their purchasing needs. The Pay & Pick (PAP) journey enables customers to explore a range of Etisalat by e& products, including mobile rate plans and the latest handsets, with smart dispensing machines quickly delivering their selections. The Pick & Go (PAG) journey is designed for quick access to fast-moving accessories displayed on smart shelves, allowing customers to pick up items that are automatically added to their virtual shopping cart. Visitors can then pay using various payment options and simply walk out.

Furthermore, visitors can trade in their smartphones without any need for agent interaction, using in-store smart machines and dispensing systems. Internal robotic handling units retrieve and deliver orders within seconds, optimizing the retail process for a seamless and efficient customer journey. In addition to customer-facing transactions, back-end processes have been automated to streamline operations and enhance efficiency, resulting in a faster and more convenient shopping experience.

Will AI catalyze the new era of TechCos?

AI presents significant opportunities for telcos to transform their value chain across services, networks, and digital propositions. This transformation further puts a premium on their enormous pool of telecom data, which includes data on call details, customers, and their network.

To craft a competitive moat for the long-term, telcos must go beyond their slow paced execution inertia by setting up agile sprint units and shift towards transitioning AI experiments into production environments with a learning mindset. As operators increase their AI-related investments, partnerships become even more crucial, specifically to build and leverage AI capabilities, infrastructure, and solutions to improve customer experience, employee productivity as well as network operations, planning and management.

Various partnership models have emerged across different markets to accelerate AI adoption. These include co-developing AI solutions, utilizing open-source tools, adopting AI-as-a-service through APIs, and fine-tuning models with partners. Regarding infrastructure, telcos can opt for cloud hosting, hybrid models, or run most of their in-house AI workloads on their cloud. Behind the hype around new AI models and applications, telcos play a pivotal role in driving AI adoption as there is growing need to establish sovereign and localized cloud infrastructure to ensure safe and secure use of AI for enterprises, small businesses, and executives.