

# INDIA FUTURE FOUNDATION

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# AI'S ROLE IN ADVANCING GREEN TECHNOLOGY: INSIGHTS FROM BILL GATES

In an interview with Blooomberg TV, Bill Gates, Founder and former CEO of Microsoft shed light on the transformative potential of artificial intelligence (AI) in advancing green technology. He highlighted the dual role of AI both in contributing to and mitigating environmental impact, emphasizing that AI could significantly offset greenhouse gas emissions through various advancements in technology.

Al Enhancing Efficiency and Green Tech: Gates pointed out that the ability of Al to enhance the efficiency of data centres is a critical factor in reducing their environmental footprint. While acknowledging that Al might eventually account for up to 6 per cent of global electricity consumption, he remained optimistic that its integration into green technologies will offer substantial benefits. Al is poised to drive significant progress in electric

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# IN THE SPOTLIGHT

vehicles (EVs) and green manufacturing processes, making these technologies more efficient and widespread.

Carbon Capture and Future Prospects: Addressing the issue of carbon emissions, Gates highlighted the importance of carbon capture technology. Although currently expensive, he believes that with innovation and investment, the cost of carbon abatement can be reduced to below \$100 per ton. This reduction is essential for tackling emissions in hard-to-abate sectors, ensuring a more sustainable future. Gates' investment fund, Breakthrough Energy, is actively supporting companies that are pioneering in the energy transition space, fostering innovations that can make a real difference.

**Optimism for the Future:** Despite the challenges, Gates expressed confidence in Al's role in promoting sustainability. The ongoing support from governments and private sectors in developing and deploying Al-driven green technologies is expected to pave the way for a more sustainable and environmentally friendly future.



#### AI FIRMS PROPEL CHINESE SHARES TO NEW HEIGHTS

In late February 2024, China Securities Index Company (CSI) experienced a significant surge, primarily driven by the performance of artificial intelligence (AI) companies. The CSI 300 Index, Shanghai Composite Index, and Hang Seng Index all saw gains, with AI firms leading the charge. Foreign investors also showed interest in Chinese shares during this period.

Chinese AI companies have been at the forefront of the recent market rally, with their innovative advancements and strategic developments capturing investor interest and leading to substantial gains in their stock prices. The robust performance of AI firms is contributing positively to the overall Chinese stock market, boosting share prices and enhancing China's position as a global leader in AI technology. The surge in AI stocks reflects growing investor confidence in the sector, which market analysts attribute to the promising potential of AI applications across various industries, from healthcare to finance and significant investments in AI research and development. As AI technology continues to evolve, it is expected to drive further economic growth and innovation. The ongoing support from the Chinese government for AI initiatives and the increasing adoption of AI solutions in both public and private sectors are likely to sustain this positive trend.

#### **Market Insights**

The recent rally in Chinese shares underscores the critical role of technology in shaping the future of global markets. Investors are advised to watch the AI sector closely, as its rapid growth presents numerous opportunities for long-term gains. Integrating AI into various facets of business and society is poised to transform industries, making it a pivotal area for strategic investment. This development marks a significant milestone for the Chinese stock market and reinforces the crucial role of AI in driving economic progress. As AI firms continue to take charge, their impact on market dynamics and the broader economy will be closely monitored by investors and analysts alike.



# AWS URGES PUBLIC SECTOR TO EMBRACE AI FOR ENHANCED EFFICIENCY AND INNOVATION

Amazon Web Services (AWS) is actively encouraging the public sector to adopt artificial intelligence (AI) to drive efficiency and innovation in their service delivery. The company stresses that by integrating AI, into their processes, public sector organizations can automate routine tasks, allowing for more responsive and efficient operations. This shift will enable data-driven decision-making, optimal use of resources and lead to significant improvements in the quality of services provided to the public, by these organisations.

AWS further stresses that by automating repetitive tasks and leveraging data analytics, Al can help public sector organizations streamline their processes, making them more efficient and responsive to the needs of citizens. Al technologies focus on enhancing decision-making processes within the public sector. By analysing large volumes of data, Al provides valuable insights that aids policymakers and administrators in making informed decisions. This capability is essential for addressing complex issues and improving public services.

AWS showcases various real-world applications through their products where AI has already made a positive impact. From healthcare to transportation, AI solutions are being implemented to tackle diverse challenges, demonstrating the versatility and effectiveness of this technology in different sectors.

AWS emphasizes on the importance of collaboration between the public sector and technology providers. AWS supports this through comprehensive training programmes, resources, and tools that are designed to help public sector organizations harness the full potential of AI.

The importance of ethical AI practices is crucial for gaining public trust cannot ruled out. Considering this fact AWS has been stressing on the importance of transparency, accountability, and fairness in its AI applications. By adhering to these principles, public sector organizations can leverage the full potential of AI, while at the same time ensuring that ethical standards are maintained.

AWS's initiative is to encourage the public sector so that it embraces AI, which will drive efficiency, innovation, and improved service delivery, among citizens. Through strategic collaboration and focus on ethical practices, AI can significantly enhance the operations of organisations in the public sector, thereby benefiting both the organizations and the citizens they serve.



#### **NEW AI INNOVATIONS AND INVESTMENTS BY CISCO**

At Cisco Live 2024, an exclusive programme that is designed to honour its Live customers and partners globally, Cisco made a path breaking announcement by introducing a series of Al-powered innovations and committed a \$1 billion global investment fund to enhance digital resilience and security. These new technologies are designed to significantly advance the connectivity and protection of organizations globally, thereby driving both growth and inclusivity.

Cisco's newly introduced AI-enriched networking, security, and observability solutions provide comprehensive visibility and actionable insights. These tools ensure robust protection and streamlined operations across various digital infrastructures, in the process empowering organizations to not only optimize their resources but also to improve their service delivery. The \$1 billion investment fund will support the development and deployment of secure AI solutions. This investment is aimed at fostering customer readiness, enhancing compute infrastructure, and advancing AI model development. Cisco's commitment reflects its dedication to driving AI innovation and supporting the industry's readiness to adopt these advanced technologies.

At the Cisco Live, the company emphasized on the importance of collaboration between public sector entities, industry leaders, and technology providers. By fostering partnerships between these stakeholders, Cisco aims to ensure the successful implementation of AI solutions. The company offers extensive support through training programmes, resources, and tools that are designed to help organizations leverage the full potential of AI, in an effective manner.

Among the key product announcements were the Cisco Nexus HyperFabric AI clusters and new capabilities for the Cisco Networking Cloud, which offer unparalleled digital experience. The company also unveiled enhanced security features, including AI-fortified Cisco Security Cloud capabilities, thereby further underscoring its commitment to providing cutting-edge solutions.



#### META'S COMMITMENT TO RESPONSIBLE AI DEVELOPMENT

In an era where artificial intelligence (AI) is reshaping our digital landscape, Meta is making significant strides to develop AI technologies that prioritize transparency and responsibility, particularly its users in Europe. With a focus on enhancing user experiences across the continent, the company is attempting to ensure that its AI systems are culturally and geographically relevant. This involves training AI models using diverse datasets that reflect Europe's unique linguistic and cultural landscape.

A core component of Meta's strategy is ensuring transparency. By openly communicating its methodologies and data usage policies, the company aims to build trust with its users. This includes strict adherence to data privacy standards, ensuring that private messages and data from minors are not utilized in training AI models. Instead, Meta leverages public content to refine its AI systems, emphasizing on ethical and responsible practices.

Meta is also actively collaborating with regulators, in Europe, to navigate the complex landscape of data protection laws, in the continent. Recent challenges from the Irish Data Protection Commission have underscored the importance of regulatory compliance in Al development. Meta is also working diligently to address these challenges and align its practices with local regulations, ensuring that its Al technologies can be safely and effectively integrated, especially in Europe.

To further enhance user control, Meta is exploring innovative ways to empower individuals with more choices over use of their data. This approach not only aligns with regulatory requirements but also reinforces Meta's commitment to user-centric AI development. As Meta continues to innovate, its focus remains on creating AI technologies that are not only advanced and efficient but is also ethically sound and is aligned with the values and expectations of users in Europe. By prioritizing transparency, user control, and regulatory compliance, Meta is setting a new standard for responsible AI development, especially in Europe.



#### AI TRANSFORMING FOOTBALL WITH VAR

The integration of advanced AI technology into football is set to revolutionize the game. The latest iteration of the Video Assistant Referee (VAR) system incorporates cuttingedge AI and real-time location-tracking chips thereby significantly enhancing decision-making.

Since its controversial debut in 2016, VAR has sparked a debate among football enthusiasts due to inconsistencies and delays, which have affected decision making. However, the upgraded version promises to be quicker and more precise, putting to rest previous concerns. The upgraded version is a result of the use of semi-automated technology that makes use of algorithms and data from multiple cameras, capturing 29 data points on each player's body, and that too at 50 times per second. This data enables real-time tracking of movement of players and ball positioning, which is critical in making crucial decisions like offsides and if the football has crossed the goal line.

The notable feature is the chip embedded in the ball, which transmits data at 500 hertz, allowing for ultra-fast and accurate detection of its interactions. This advancement was first showcased during the 2022 FIFA World Cup.

Despite these technological advancements, the human element remains integral. Referees will still rely on their judgment for subjective decisions, such as player intent, ensuring a balanced approach between technology and human expertise. The future of officiating a football match could involve even more sophisticated tools, like virtual-reality contact lenses for referees, thereby enhancing their ability to make informed decisions in real time.

As Al continues to transform football, the world most popular sport, the commitment to improving the accuracy and speed of VAR is set to enhance the overall fairness and excitement of the game, promising it reach to greater heights and reach new corners of the globe.



# NEWS FROM INDIA

#### **CATALYZING AI READINESS IN INDIA**

United Nations Educational, Scientific and Cultural Organization (UNESCO), in collaboration with the Government of India, recently hosted the National Stakeholder Workshop on the Ethics of Artificial Intelligence (AI) in New Delhi. This event marked the launch of the AI Readiness Assessment Methodology (RAM) in India, that is designed to evaluate the country's AI capabilities across various dimensions, including legal, social, cultural and technical aspects.

The workshop brought together 120 government officials from across India, including representatives from all Ministries of the Government of India, NITI Aayog and industry partners such as NASSCOM. Officials from 28 states and 8 Union Territories also attended, the workshop, thereby ensuring a broad representation of perspectives.

The workshop featured comprehensive sessions on AI fundamentals, ethical considerations, UNESCO's role in AI ethics, and the current AI policy landscape in India. Keynote speakers, at the workshop, included Tim Curtis, Director of the UNESCO South Asia Regional Office in New Delhi, Shri Abhishek Singh, Additional Secretary from the Ministry of Electronics and Information Technology, and Shri Ajay Kumar Sood, Principal Scientific Adviser to the Prime Minister of India.

UNESCO's RAM aims to guide India in developing robust AI frameworks that incorporate ethical principles, thereby ensuring that AI development benefits the society while upholding values of fairness, transparency, and human dignity. This initiative aligns with India's broader AI strategy, including the India AI mission, which focuses on fostering the development and adoption of AI technologies in a responsible manner.

The collaboration between UNESCO and the Government of India underscores a shared commitment to leveraging AI for social good, emphasizing on inclusive and ethical governance. This initiative is expected to drive the creation of policies that promote equitable and sustainable AI adoption, addressing global challenges and advancing social progress.



# NEWS FROM INDIA

# RBI ENHANCES AI AND ML CAPABILITIES TO STRENGTHEN THE FINANCIAL SECTOR

The Reserve Bank of India (RBI) is making significant strides to enhance its AI and machine learning (ML) capabilities to strengthen the financial sector, in the country. RBI Governor Shaktikanta Das highlighted the central bank's commitment to leveraging these advanced technologies to improve the supervision and regulation of financial institutions during the FIBAC 2023 Conference, organized by FICCI and IBA.

Speaking at the function, the RBI Governor emphasized on the need for financial institutions, including banks and NBFCs, to regularly recalibrate their AI and ML models to adapt to the rapidly evolving financial landscape. He stressed on the importance of ensuring that these models are robust and are periodically tested, so that they maintain their efficacy and reliability. The goal is to use these technologies to gain deeper insights into banking operations and enhance the overall decision-making process.

Furthermore, the RBI Governor underscored the critical role played by AI in enhancing customer service and cybersecurity. By analyzing vast amounts of data, financial institutions can in a much better manner anticipate and address customer needs and also identify and mitigate potential risks. The use of AI in cybersecurity is particularly crucial, as it helps in early detection of fraudulent activities and safeguards sensitive customer information.

The RBI is also collaborating with global consultancy firms like McKinsey and Accenture to develop Al-driven supervisory systems. These partnerships aim to integrate Al and ML tools into the RBI's regulatory framework, thereby enhancing the Central Bank's ability to monitor financial transactions in real time and ensure compliance with regulatory standards.

The RBI's proactive approach to adopting AI and ML technologies is set to transform the Indian financial sector, making it more resilient, efficient, and customer-centric. This initiative reflects the RBI's commitment to harnessing the power of technology to foster a secure and robust financial ecosystem.



## NEW DEVELOPMENTS

#### **INNOVATIVE AI APPLICATIONS IN MEDICINE**

Artificial Intelligence (AI) is making significant strides in the medical field, enhancing diagnostics, treatment, and patient care. Here are five innovative examples that demonstrate AI's transformative impact:

- **Diagnostic Assistance:** All systems are revolutionizing medical imaging by analyzing X-rays, MRIs, and CT scans with remarkable accuracy. These systems can detect conditions such as cancers, fractures, and cardiovascular diseases, often identifying anomalies that might be overlooked by the human eye. For instance, Al algorithms in mammography have been shown to reduce false positives and negatives, thereby improving early cancer detection rates.
- Robot-Assisted Surgery: It has been seen that AI-powered surgical robots, like the da
   Vinci Surgical System, are enhancing the precision and control that surgeons have
   during complex procedures. These robots provide minimally invasive options, leading
   to reduced recovery times, lower risk of infection, and less post-operative pain.
   Thorough employment of robot assisted surgery surgeons can perform intricate tasks
   through small incisions with greater accuracy, making surgeries safer and more
   efficient.
- **Personalized Treatment Plans:** All is being utilized to develop personalized treatment plans based on a patient's genetic makeup, lifestyle, and other health data. This approach, often termed precision medicine, allows for tailored therapies that are more effective and have fewer side effects. All models can predict how different patients will respond to various treatments, optimizing care plans.
- **Natural Language Processing (NLP):** Al-driven NLP tools streamline administrative tasks by automating the extraction of relevant information from unstructured data sources like clinical notes and research papers. These tools help in coding, billing, and managing electronic health records (EHRs), ensuring accurate and efficient data handling, which improves overall healthcare delivery.
- Predictive Analytics and Preventive Care: All models are being used to predict disease
  outbreaks and patient health deterioration before they occur. For instance, All can
  analyze trends from wearable health devices and patient history to forecast potential
  health issues, enabling proactive interventions. This predictive capability is crucial in
  managing chronic diseases and preventing hospital readmissions.

These innovations illustrate how AI is enhancing medical practices, making healthcare more precise, efficient, and patient-centric. The continuous integration of AI in medicine promises to improve outcomes further and transform the healthcare landscape.



## NEW DEVELOPMENTS

#### **FUJITSU LAUNCHES GENERATIVE AI FRAMEWORK FOR ENTERPRISES**

Fujitsu Limited, a Japanese technology company specializing in consumer and industrial electronics, announced the launch of the world's first enterprise-wide generative Al framework technology that is designed to meet the dynamic needs of modern businesses. This new framework is part of Fujitsu's Kozuchi lineup and incorporates innovative features such as Knowledge Graph Extended Retrieval-Augmented Generation (RAG), which enhances information retrieval and generation by using comprehensive knowledge graphs. Additionally, the framework includes Generative Al Amalgamation Technology that integrates multiple generative Al models for seamless collaboration, enhancing the versatility and robustness of Al applications within enterprises.

Another significant feature is the Generative AI Auditing Technology, which ensures that AI models meet regulatory and ethical standards, providing transparency and accountability in AI operations. This technology is particularly crucial for businesses that need to comply with stringent data privacy and ethical guidelines. Fujitsu's generative AI framework aims to revolutionize enterprise AI applications by improving operational efficiency, data handling, and decision-making processes. The framework's emphasis on reliability and compliance addresses growing concerns about AI's role in business operations, ensuring that AI technologies are both innovative and trustworthy.

With this launch, Fujitsu continues to lead the AI industry by providing solutions that not only push technological boundaries but also adhere to regulatory requirements. This framework represents a significant advancement in how businesses can leverage AI to achieve their goals while maintaining high standards of compliance and reliability. The enterprise-wide generative AI framework is poised to set new standards in the industry, helping businesses navigate the complexities of AI deployment and management more effectively.

#### **GENERATIVE AI TAKES CENTER STAGE AT SAP SAPPHIRE 2024**

At SAP Sapphire 2024, the transformative potential of generative AI took centre stage, emphasizing its role in revolutionizing business operations. (SAP Sapphire is one of the most significant annual events in the tech and business world, organized by SAP, a global leader in enterprise application software). At the SAP Sapphire, SAP CEO Christian Klein and Chief Marketing Officer Julia White showcased new advancements in RISE with SAP and GROW with SAP, highlighting enhanced tools and integrations with AWS and Google Cloud. A pivotal announcement, at the event, was the introduction of the Joule copilot, which promises to become the new front-end for SAP applications, significantly boosting productivity by integrating AI seamlessly into business processes. Klein reinforced SAP's commitment to responsible AI, aligning with UNESCO's principles and focusing on delivering tangible results to help businesses thrive in the AI era. The event's theme, "Bring Out Your Best," underscored SAP's dedication to harnessing AI to drive efficiency and innovation across industries. This theme reflects SAP's strategic vision of leveraging AI technologies to enhance operational workflows and foster a culture of innovation.

# NEW DEVELOPMENTS

The new AI capabilities in SAP's offerings are designed to streamline complex business processes, making them more efficient and effective. For instance, the integration of generative AI in SAP applications aims to automate routine tasks, provide insightful data analysis, and offer predictive solutions that can pre-empt potential issues.

This shift towards AI-centric solutions is poised to redefine how businesses interact with technology, making advanced AI tools accessible and practical for everyday business use. SAP Sapphire 2024 demonstrated SAP's proactive approach to leading the AI transformation, ensuring that businesses are equipped with the tools needed to navigate the evolving technological landscape successfully.

# HITACHI AND MICROSOFT FORGE STRATEGIC PARTNERSHIP TO DRIVE INNOVATION WITH GENERATIVE AI

Hitachi Ltd and Microsoft Corp. have announced a three-year, multibillion-dollar agreement aimed at propelling business and social innovation through the use of generative AI. This collaboration will leverage Microsoft's cutting-edge cloud and AI technologies, such as Azure OpenAI Service, Dynamics 365, and GitHub Copilot, to enhance Hitachi's Lumada solutions. By integrating these advanced technologies, Hitachi aims to significantly improve operational efficiency and productivity across its global workforce of 270,000 employees. Furthermore, this partnership will enable Hitachi to drive innovative solutions across various industries, including energy and mobility, promoting digital transformation and sustainable development.

One key provision of this agreement is to provide training to over 50,000 Hitachi professionals in advanced AI skills, so as to ensure that the workforce is equipped to harness the full potential of these new technologies. This training initiative underscores the commitment of both the companies to foster a culture of continuous learning and development, which is essential for navigating the rapidly evolving technological landscape.

This collaboration also emphasizes on the responsible use of AI, aligning with ethical guidelines to ensure that the deployment of AI technologies contributes positively to the society. By focusing on responsible AI, Hitachi and Microsoft aim to set a standard for the ethical implementation of AI in business and social contexts.

This partnership marks a significant step in Hitachi's digital transformation journey, positioning the company to leverage the full capabilities of generative AI to solve complex business challenges and create new opportunities for innovation. It also reflects Microsoft's ongoing efforts to empower organizations with advanced AI tools that drive meaningful change and support sustainable growth.







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