

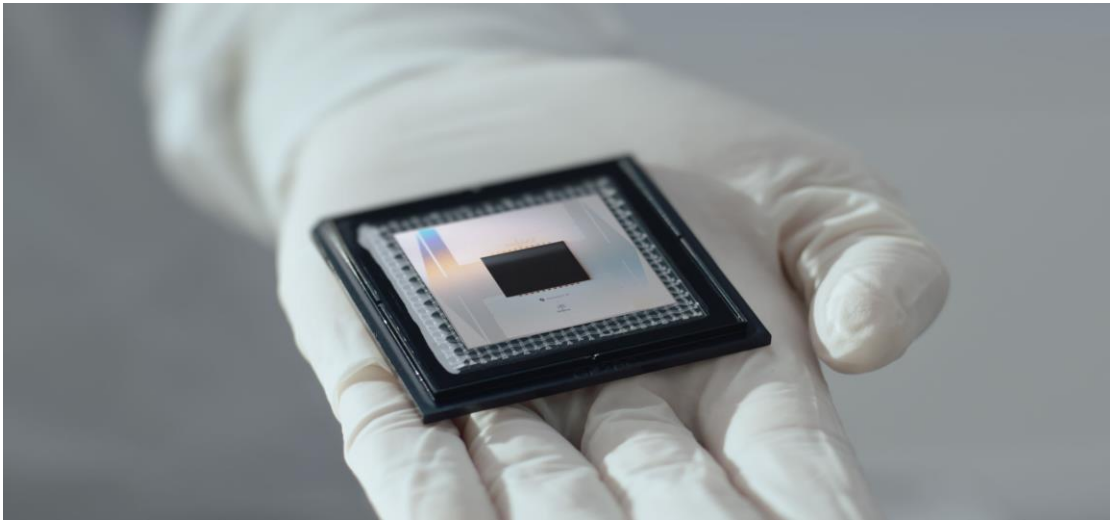
Department of Data Science
Weekly Data Science Bytes

SOAR: INDIA'S NEW PUSH FOR AI-DRIVEN EDUCATION AND SKILLING



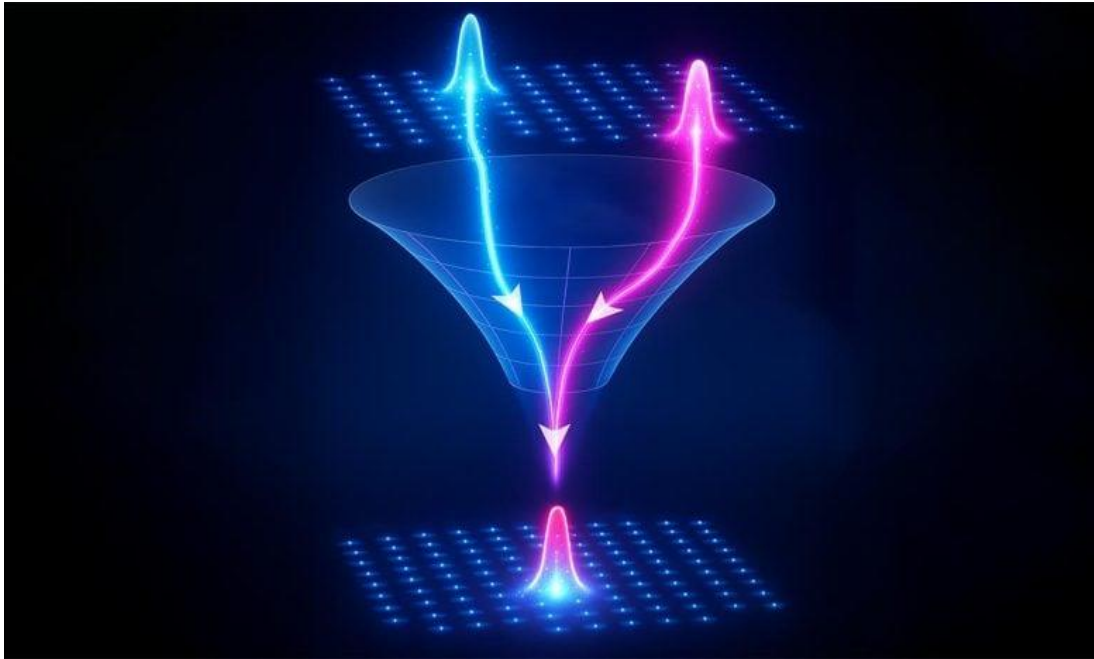
- India is taking a major step toward building an AI-ready generation through the Skilling for AI Readiness (SOAR) programme, launched by the Ministry of Skill Development and Entrepreneurship (MSDE) in July 2025. The initiative, which coincides with the ten-year milestone of the Skill India Mission, aims to integrate artificial intelligence learning into India's school education and training ecosystem, preparing both students and teachers for a rapidly evolving digital world.
- SOAR focuses on school students from classes six to twelve and educators across India, offering three targeted 15-hour modules for students and a 45-hour module for teachers. These courses introduce foundational AI and machine learning concepts, along with data literacy and the ethical use of technology. By familiarising learners with AI from an early age, the programme seeks to nurture curiosity, promote responsible innovation, and equip the next generation with the skills needed for the future workplace.

Google Quantum AI Shows 13,000× Speedup Over World's Fastest Supercomputer in Physics Simulation



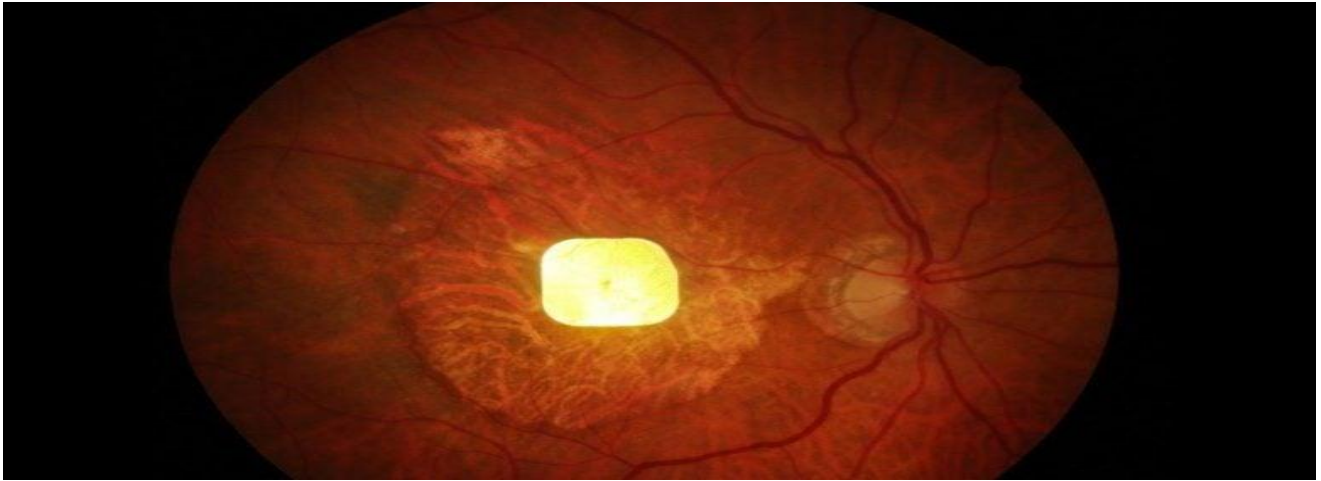
- Google Quantum AI's 65-qubit processor performed a complex physics simulation 13,000 times faster than the Frontier supercomputer, marking measurable progress toward practical quantum advantage.
- The experiment used a new "Quantum Echoes" algorithm to measure interference effects called OTOC(2), revealing quantum behavior that classical machines cannot efficiently reproduce.
- The team linked the work to real-world applications, including extending nuclear magnetic resonance (NMR) spectroscopy and advancing Google's dual-track roadmap for hardware and software breakthroughs in quantum computing.

Self-Organizing Light Could Transform Computing Communications



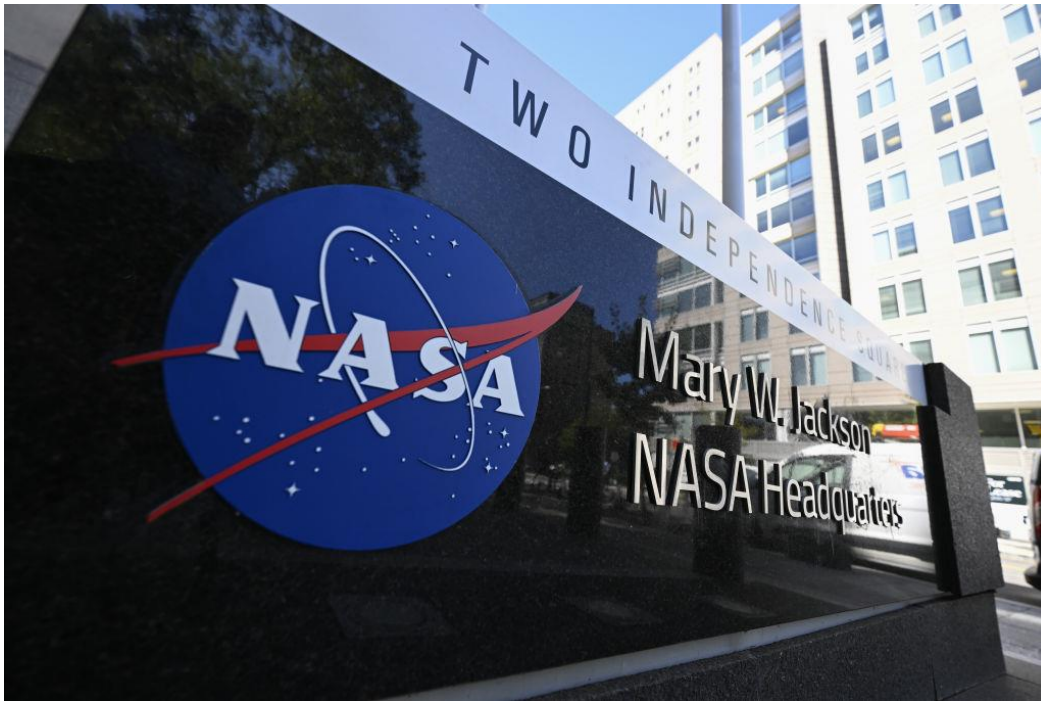
- Researchers at the Ming Hsieh Department of Electrical and Computer Engineering have achieved a major advance in photonics with the creation of the first optical device based on the emerging concept of optical thermodynamics.
- Their study, published in *Nature Photonics*, presents a completely new method for directing light within nonlinear systems (systems that operate without switches, external control, or digital input). In this setup, light doesn't need to be steered or adjusted—it naturally travels through the device, following the basic laws of thermodynamics.

Solar-Powered Eye Implant Restores Reading Vision



- People who had lost their sight have regained the ability to read after receiving a groundbreaking electronic eye implant combined with augmented-reality glasses, according to a clinical trial led by researchers from UCL and Moorfields Eye Hospital.
- Findings from the European study, published in *The New England Journal of Medicine*, revealed that 84% of participants were able to recognize letters, numbers, and words using prosthetic vision in an eye that had previously gone blind. Their vision loss was caused by an advanced, untreatable form of dry age-related macular degeneration (AMD) known as geographic atrophy.

MUSK, NASA CHIEF DUFFY JOSTLE OVER SPACE AGENCY LEADERSHIP



- NASA chief Sean Duffy and billionaire Elon Musk on Tuesday traded barbs online over who should lead the space agency, a day after Duffy invited companies to compete with Musk's SpaceX for a moon landing mission.
- The spat involving the U.S. space program and the SpaceX CEO, which have extensive financial ties, spilled into public view after Musk responded on social media platform X to reports Duffy wants to fold the National Aeronautics and Space Administration into the Transportation Department. Duffy is also the Transportation Secretary.
- "The person responsible for America's space program can't have a 2 digit IQ," Musk wrote.

Europe firms agree satellite merger to counter Starlink



- European aerospace groups unveiled an initial deal on Thursday to pool their loss-making satellite manufacturing activities, combining forces after months of negotiations to counter the runaway growth of rivals led by Elon Musk's Starlink.
- The keenly awaited deal between Airbus Thales, and Leonardo, aims to forge a new venture starting from 2027, subject to approval by European regulators who have resisted such moves in the past.
- The unnamed new entity will employ 25,000 people across Europe with annual revenues of 6.5 billion euros (\$7.58 billion), based on 2024 figures, the companies said in a statement.
- Airbus will hold 35%, while Thales and Leonardo will each hold 32.5%, the statement said, adding it would operate under joint control "with a balanced governance structure"