Weekly Bytes on Innovation and New Trends

OpenAI previews voice generator, acknowledging election risks

● Artificial intelligence startup OpenAI released a preview Friday of a digital voice generator that it said could produce natural-sounding speech based on a single 15-second audio sample.

● The software is called Voice Engine. It's the latest product to come out of the San Francisco startup that's also behind the popular chatbot ChatGPT and the image generator DALL-E.

● The company said in a blog post that it had tested Voice Engine in an array of possible uses, including reading assistance to children, language translation and voice restoration for cancer patients.

Over 17M developers now building on GitHub in India, fastest growing developer community in the world

● GitHub today revealed that there are over 17 million developers in India building on GitHub, representing an increase of 28% in 2024, and making India the fast-growing developer community in the world. India also has the second-highest number of GitHub Education users, second-highest number of contributors to public generative AI projects, and the second-highest number of contributions to open source projects—underscoring India's rise as a global technology leader.

● The 2024 edition of GitHub's Octoverse report shows a surge in generative AI activity in India, signalling that AI has moved beyond the hype of 2023 as Indian developers and organisations prioritise results over experimentation. India is the second largest developer community contributing to public generative AI projects on GitHub, just behind the US, with a 79% increase from last year. India also saw a 95% year-over-year (YoY) growth in contributions to these projects, placing third globally, after the US and Hong Kong (SAR).

● GitHub predicts that India will surpass the US to become the world's largest developer community by 2028. Previously, GitHub had forecasted this shift by 2027, based on linear population growth.

57% of Organizations Suffer API-related Breaches; Fraud, Bot Attacks, and Generative AI Applications Exploit API Vulnerabilities as Traditional Defenses Fail

● Traceable AI recently released its second annual research report—the **2025 Global State of API Security**. The findings demonstrate that organizations are failing to protect their APIs despite persistent breaches and increased awareness of security risks. This comprehensive study, incorporating insights from over 1,500 IT and cybersecurity experts across the US, UK, and EMEA, reveals fundamental weaknesses in API security strategies and tracks how these issues have shifted since our inaugural report.

● Key findings examine the most pressing API security issues organizations face today: increasing bot attacks and fraud, risks from third-party APIs, and the new security implications of generative AI applications.

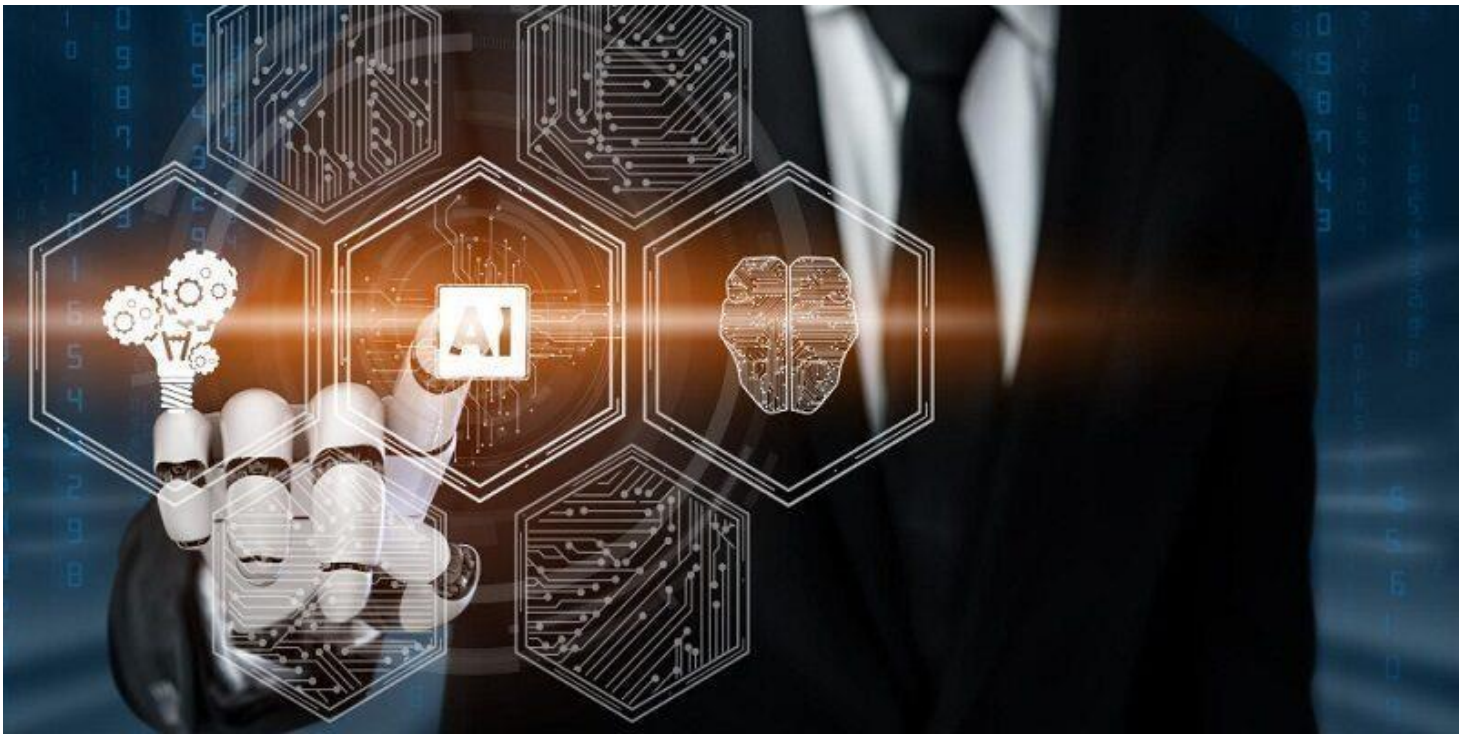
Wipro, Microsoft and SAP Collaborate to Accelerate RISE with SAP Migration at Near Zero Cost

● Wipro recently announced a strategic collaboration with Microsoft and SAP. The initiative is designed to help clients significantly improve the speed and effectiveness of RISE with SAP migrations on the Microsoft Cloud.

● Through the collaboration, Wipro will be able to offer clients a strategic roadmap and best practices to fully harness the potential of RISE with SAP, enhancing digital operations, overall efficiency, and improved customer experiences.

● The joint effort also includes financial incentives that allow clients to achieve a 'Near Zero Cost Migration' on their way to becoming an intelligent enterprise.

ServiceNow Unveils New Research on Government Organizations Setting the Pace for AI-Driven Transformation



● ServiceNow recently released **The State of AI-Powered Transformation in Government**, a global research study on the pace of AI transformation in the public sector.

● According to the research, many government organizations have yet to reap the full benefits of digital technology and relatively few are leveraging innovation to advance their diverse missions.

● The report outlines best practices implemented by Pacesetters that can be replicated in other government organizations to improve outcomes.

KiyaAI's Bharatmeta to make Ayodhya's sacred sites accessible worldwide via Metaverse

● KiyaAI is set to revolutionise spiritual tourism through its metaverse platform, Bharatmeta. Ahead of Diwali, the company has partnered with the Ayodhya Development Authority to develop 3D virtual experiences of prominent spiritual and cultural sites, including the Ram Janmabhoomi temple, Hanuman Garhi, and the various ghats along the Sarayu River.

● This initiative aims to make Ayodhya's sacred landmarks accessible to a global audience by early 2025.

In Swift Robotics: Pioneering India's Global Presence in Robotics

● July 2024, history was made when Prime Minister Narendra Modi embarked on a pivotal visit to Austria, accompanied by a select group of Indian industry representatives.

● Among these was Sunny, a visionary entrepreneur and founder of Swift Robotics, a company pioneering in India's fast-growing robotics sector.

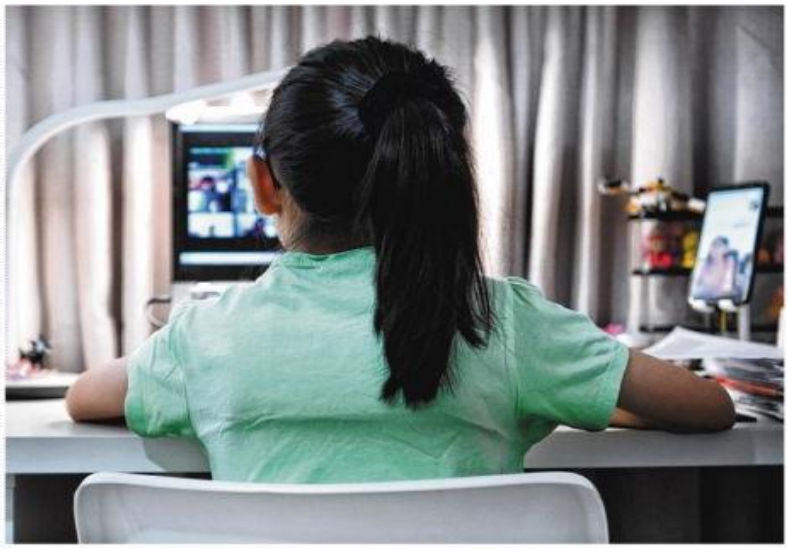
● His participation in this landmark event marked a defining moment for both Indo-Austrian relations and the narrative of Indian technological prowess on the global front.

Source: https://startupnews.fyi/2024/10/25/swift-robotics-pioneering-indias-global-presence-in-robotics-and-innovation

Education in a tech-transformed world: What and how we learn must evolve

It is misguided to believe that learning content in schools is unimportant as everything can be found on the Internet or by using AI tools

Liew Wei Li



With smarter technology, do we still need teachers? Absolutely. Teachers observe the whole child in order to design purposeful learning experiences, and they provide the human touch which technology cannot offer.

The ubiquity of technology propels critical competencies, such as resilience, critical thinking, collaboration and information skills, from "good-to-have" to "need-to-have". ST FILE PHOTO

In the 1950s, school was defined by the perimeter fence. Knowledge was acquired from the teacher's scribblings of concepts on the chalkboard, as well as from textbooks. In the following decades, school was broadened to include excursions; exposure to sports, arts and music programmes; community service; and even overseas exchanges.

With the advancement of technology, learning also took on more diverse forms. Some of us can recall watching Educational TV as students. I taught using overhead projectors and transparencies.

Now, school is no longer limited by time or space. Every student can access quality, curriculum-aligned learning resources for any subject, at any level, on the Singapore Student Learning Space (SLS). Every student can connect to anyone and any online resource, anywhere in the world, at any time.

While technology extends and expands the ways in which students learn, the pervasiveness of accessible technology in work and life means that what and how our students learn must evolve.

In a technology-driven age, some may say that learning content in schools is unimportant as everything can be found on the Internet or by using artificial intelligence (AI) tools. This view is misguided.

Some content is still needed for two reasons. First, content and skills are intertwined; one cannot be developed without the other. Research has shown that critical thinking cannot exist in a vacuum. Bransford et al. and De Corte's respective research on constructivist and situated learning found that students need to tap a sound knowledge base acquired from learning different subjects in schools to distil, discern and problem-solve in various situations.

Second, we cannot be referring to or checking facts all the time when we work or make everyday decisions. Some things must be at our fingertips for us to be productive. We must have a quick way to verify content retrieved by AI tools.

BALANCING CONTENT AND SKILLS

So the questions become: with finite resources, time and capacities, how do we balance between content and skills in our education system, and how does technology tilt the scales?

The ubiquity of technology propels critical competencies, such as resilience, civic literacy, cross-cultural skills, critical thinking, inventive thinking, collaboration and information skills, from "good-to-have" to "need-to-have".

While we have fared well, and should continue to focus on content mastery, we should put more emphasis on the development of dispositions and competencies that will put students in good stead long after they leave formal education.

Students and adults alike need to hone good judgment, as well as anticipate, define, and solve novel problems. They have to gather and link ideas from across domains, create new value and bring them to fruition in teams.

This is why the Ministry of Education (MOE) reviews the curriculum regularly to update knowledge and skills for the future, and remove the less relevant to free up more time and space for 21st century competencies (21CC) development, to hone students' ability to cope with complexity, ambiguity and change.

The removal of mid-year examinations – for primary and secondary schools, as well as junior college and Millennia Institute – aims to ensure that there is space in the school experience to develop and deepen these critical competencies.

Our curriculum changes also reflect this – with more opportunities for group work in daily lessons and interdisciplinary learning through applied learning programmes and project work. We must remember not to miss the forest for the trees, such as avoiding subjects of interest or challenging projects just to get the "perfect score". This short-term approach short-circuits the potentially rich learning process in our education system.

To recognise the importance of 21CC, schools provide a qualitative description for each student in the holistic development profile every semester and in the school graduation certificate after completing secondary school or pre-university education. This gives students and parents a sense of what students have learnt and attained in terms of values, dispositions and competencies in addition to subject grades.

TEACHERS INDISPENSABLE

With smarter technology, do we still need teachers? Absolutely. Teachers observe the whole child in order to design purposeful learning experiences, and they provide the human touch which technology cannot offer.

Our experience is that students need a variety of blended pedagogies, including education technology, to learn effectively. They learn better when examples or contexts used are familiar to them, and when teachers use technology to engage all students simultaneously. They are more motivated to learn when they know their teachers care for them and they have a personal connection.

Teachers evaluate their students' needs holistically and customise interventions accordingly. This ranges from teaching the student self-management skills to providing leadership responsibilities. Students still need a human "interface" to learn well, particularly when they are young or if they come from homes with less support, and to develop good character.

As new breakthroughs are made and technology advances, Singapore's school curriculum will continue to evolve. Will it meet our lifetime's needs? Of course not. The half-life of knowledge is shortening, our lifespans are lengthening, and the future is unknowable. We must continue to learn throughout our life.

Ultimately, the values, dispositions, fundamental concepts and skills inculcated in our students will give them a strong foundation to learn for life, augmented by technology.

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Source:https://www.linkedin.com/posts/greg-port_as-the-influence-of-technology-in-every-aspect-activity-7050456620799045632-4XC3