Daily Al Innovation in July 2024

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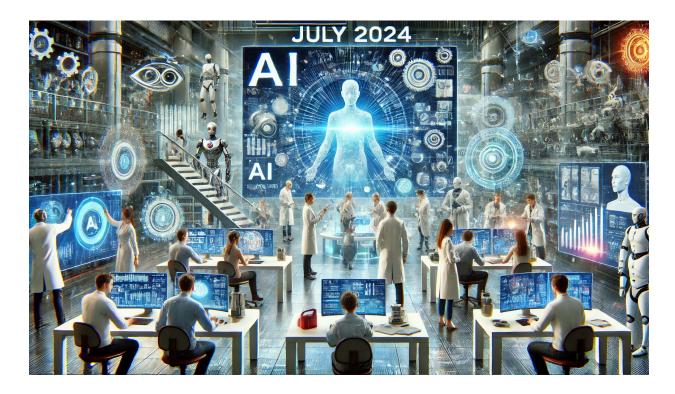
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Welcome to our blog series "Al Innovations in July 2024"! As we continue to ride the wave of extraordinary developments from June, the momentum in artificial intelligence shows no signs of slowing down. Last month, we witnessed groundbreaking achievements such as the unveiling of the first quantum Al chip, the successful deployment of autonomous medical drones in remote areas, and significant advancements in natural language understanding that have set new benchmarks for Al-human interaction.

July promises to be just as exhilarating, with researchers, engineers, and visionaries pushing the boundaries of what's possible even further. In this evolving article, updated daily throughout the month, we'll dive deep into the latest AI breakthroughs, advancements, and milestones shaping the future.

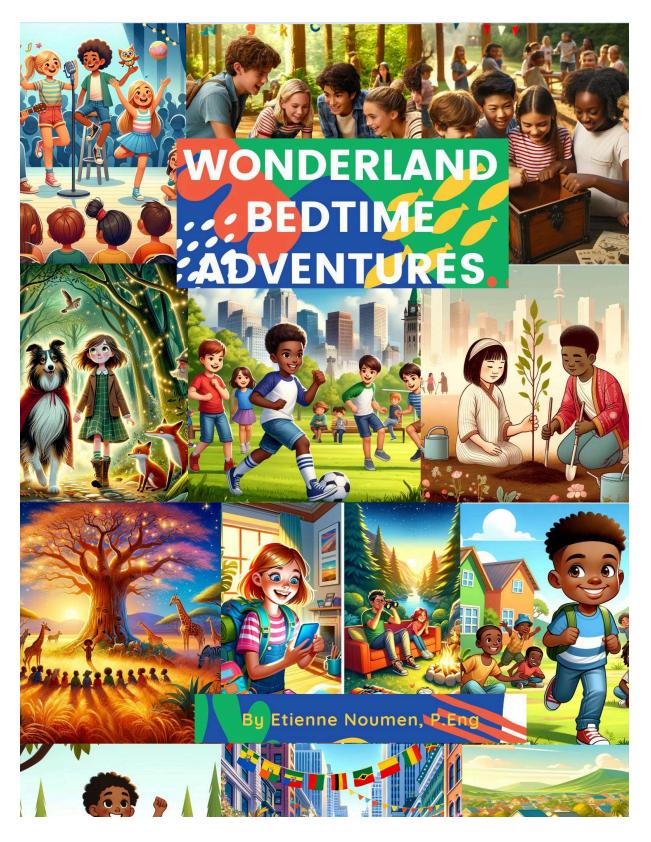
From revolutionary Al-powered technologies and cutting-edge research to the societal and ethical implications of these innovations, we provide you with a comprehensive and insightful look at the rapidly evolving world of artificial intelligence. Whether you're an Al enthusiast, a tech-savvy professional, or simply someone curious about the future, this blog will keep you informed, inspired, and engaged.

Join us on this journey of discovery as we explore the frontiers of AI, uncovering the innovations that are transforming industries, enhancing our lives, and shaping our future. Stay tuned for daily updates, and get ready to be amazed by the incredible advancements happening in the world of AI!



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A Daily chronicle of Al Innovations July 01st 2024:

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- JARVIS-inspired Grok 2 aims to answer any user query
- Apple unveils a public demo of its '4M' Al model
- Amazon hires Adept's top executives to build an AGI team
- YouTube lets you remove Al-generated content resembling face or voice

- Runway opens Gen-3 Alpha access
- Motorola hits the Al runway
- Meta swaps 'Made with Al' label with 'Al info' to indicate Al photos
- Deepfakes to cost \$40 billion by 2027: Deloitte survey
- Anthropic launches a program to fund the creation of reliable Al benchmarks
- US's targeting of Al not helpful for healthy development: China
- New robot controlled by human brain cells
- Figma to temporarily disable Al feature amid plagiarism concerns

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Runway opens Gen-3 Alpha access



Runway just announced that its Al video generator, Gen-3 Alpha, is now available to all users following weeks of impressive, viral outputs after the model's release in mid-June.

- Runway unveiled Gen-3 Alpha last month, the first model in its next-gen series trained for learning 'general world models'.
- Gen-3 Alpha upgrades key features, including character and scene consistency, camera motion and techniques, and transitions between scenes.
- Gen-3 Alpha is available behind Runway's 'Standard' \$12/mo access plan, which gives users 63 seconds of generations a month.
- On Friday, we're running a free, hands-on workshop in our Al University covering how to create an Al commercial using Gen-3, ElevenLabs, and Midjourney.

Despite impressive recent releases from KLING and Luma Labs, Runway's Gen-3 Alpha model feels like the biggest leap AI video has taken since Sora. However, the tiny generation limits for non-unlimited plans might be a hurdle for power users.

Source: https://x.com/runwayml/status/1807822396415467686

Motorola hits the Al runway



https://youtu.be/CSfw_NjqQ2o?si=xYpZg9AwRgasLhov

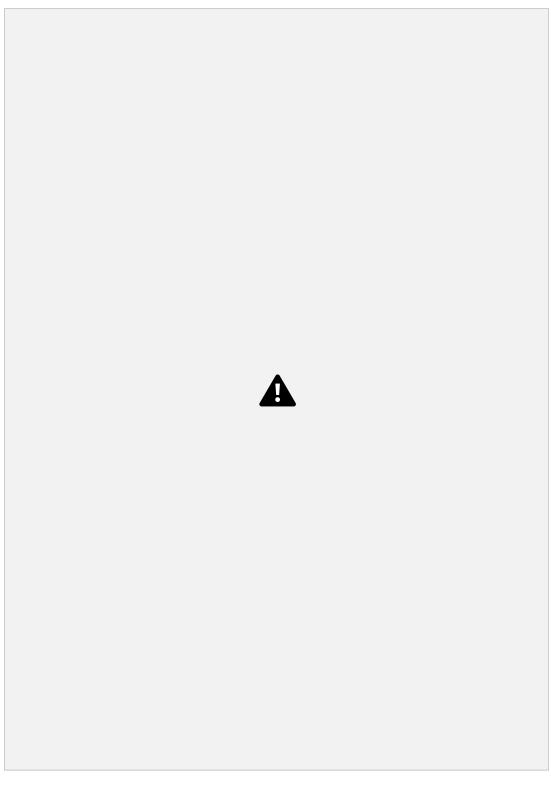
Motorola just <u>launched</u> its 'Styled By Moto' ad campaign, an entirely Al-generated fashion spot promoting its new line of Razr folding smartphones — created using nine different Al tools, including Sora and Midjourney.

- The 30-second video features Al-generated models wearing outfits inspired by Motorola's iconic 'batwing' logo in settings like runways and photo shoots.
- Each look was created from thousands of Al-generated images, incorporating the brand's logo and colors of the new Razr phone line.
- Tools used include OpenAl's Sora, Adobe Firefly, Midjourney, Krea, Magnific, Luma, and more reportedly taking over four months of research.
- The 30-second spot is also set to an Al-generated soundtrack incorporating the 'Hello Moto' jingle, created using Udio.

This is a fascinating look at the Al-powered stack used by a major brand, and a glimpse at how tools can (and will) be combined to open new creative avenues. It's also another example of the shift in discourse surrounding Al's use in marketing — potentially paving the way for wider acceptance and integration.

JARVIS-inspired Grok 2 aims to answer any user query

Elon Musk has announced the release dates for two new AI assistants from xAI. The first, Grok 2, will be launched in August. Musk says Grok 2 is inspired by JARVIS from Iron Man and The Hitchhiker's Guide to the Galaxy and aims to answer virtually any user query. This ambitious goal is fueled by xAI's focus on "purging" LLM datasets used for training.



Musk also revealed that an even more powerful version, Grok 3, is planned for release by the end of the year. Grok 3 will leverage the processing power of 100,000 Nvidia H100 GPUs, potentially pushing the boundaries of AI performance even further.

Why does it matter?

These advanced AI assistants from xAI are intended to compete with and outperform AI chatbots like OpenAI's ChatGPT by focusing on data quality, user experience, and raw processing power. This will significantly advance the state of AI and transform how people interact with and leverage AI assistants.

Source: https://www.coinspeaker.com/xai-grok-2-elon-musk-jarvis-ai-assistant/



Apple unveils a public demo of its '4M' Al model

Apple and the Swiss Federal Institute of Technology Lausanne (EPFL) have released a public demo of the '4M' AI model on Hugging Face. The 4M (Massively Multimodal Masked Modeling) model can process and generate content across multiple modalities, such as creating images from text, detecting objects, and manipulating 3D scenes using natural language inputs.

While companies like Microsoft and Google have been making headlines with their Al partnerships and offerings, Apple has been steadily advancing its Al capabilities. The public demo of the 4M model suggests that Apple is now positioning itself as a significant player in the Al industry.

Why does it matter?

By making the 4M model publicly accessible, Apple is seeking to engage developers to build an ecosystem. It could lead to more coherent and versatile experiences, such as enhanced Siri capabilities and advancements in Apple's augmented reality efforts.

Source:

https://venturebeat.com/ai/apple-just-launched-a-public-demo-of-its-4m-ai-model-heres-w hy-its-a-biq-deal



Amazon hires Adept's top executives to build an AGI

team

Amazon is hiring the co-founders, including the CEO and several other key employees, from the Al startup Adept.CEO David Luan will join Amazon's AGI autonomy group, which is led by Rohit

Prasad, who is spearheading a unified push to accelerate Amazon's Al progress across different divisions like Alexa and AWS.

Amazon is consolidating its Al projects to develop a more advanced LLM to compete with OpenAI and Google's top offerings. This unified approach leverages the company's collective resources to accelerate progress in Al capabilities.

Why does it matter?

This acquisition indicates Amazon's intent to strengthen its position in the competitive AI landscape. By bringing the Adept team on board, Amazon is leveraging its expertise and specialized knowledge to advance its AGI aspirations.

Source:https://www.bloomberg.com/news/articles/2024-06-28/amazon-hires-top-executiv es-from-ai-startup-adept-for-agi-team

YouTube lets you remove Al-generated content resembling face or voice

YouTube lets people request the removal of Al-generated content that simulates their face or voice. Under YouTube's privacy request process, the requests will be reviewed based on whether the content is synthetic, if it identifies the person, and if it shows the person in sensitive behavior. Source:

https://techcrunch.com/2024/07/01/youtube-now-lets-you-request-removal-of-ai-generated-cont ent-that-simulates-vour-face-or-voice

Meta swaps 'Made with Al' label with 'Al info' to indicate Al photos

Meta is refining its Al photo labeling on Instagram and Facebook. The "Made with Al" label will be replaced with "Al info" to more accurately reflect the extent of Al use in images, from minor edits to the entire AI generation. It addresses photographers' concerns about the mislabeling of their photos. Source:

https://techcrunch.com/2024/07/01/meta-changes-its-label-from-made-with-ai-to-ai-info-to-indica te-use-of-ai-in-photos

Deepfakes to cost \$40 billion by 2027: Deloitte survey

Deepfake-related losses will increase from \$12.3 billion in 2023 to \$40 billion by 2027, growing at 32% annually. There was a 3,000% increase in incidents last year alone. Enterprises are not well-prepared to defend against deepfake attacks, with one in three having no strategy.

Source:

https://venturebeat.com/security/deepfakes-will-cost-40-billion-by-2027-as-adversarial-ai-gains-momentum

Anthropic launches a program to fund the creation of reliable Al benchmarks

Anthropic is launching a program to fund new AI benchmarks. The aim is to create more comprehensive evaluations of AI models, including assessing capabilities in cyberattacks and weapons and beneficial applications like scientific research and bias mitigation. Source: https://techcrunch.com/2024/07/01/anthropic-looks-to-fund-a-new-more-comprehensive-generat ion-of-ai-benchmarks

US's targeting of Al not helpful for healthy development: China

China has criticized the US approach to regulating and restricting investments in AI. Chinese officials stated that US actions targeting AI are not helpful for AI's healthy and sustainable development. They argued that the US measures will be divisive when it comes to global governance of AI.

Source:

https://www.reuters.com/technology/artificial-intelligence/china-says-us-targeting-ai-not-helpful-healthy-development-2024-07-01

New robot controlled by human brain cells

- Scientists in China have developed a robot with an artificial brain grown from human stem cells, which can perform basic tasks such as moving limbs, avoiding obstacles, and grasping objects, showcasing some intelligence functions of a biological brain.
- The brain-on-chip utilizes a brain-computer interface to facilitate communication with the external environment through encoding, decoding, and stimulation-feedback mechanisms.
- This pioneering brain-on-chip technology, requiring similar conditions to sustain as a human brain, is expected to have a revolutionary impact by advancing the field of hybrid intelligence, merging biological and artificial systems.

Source: https://www.independent.co.uk/tech/robot-human-brain-china-b2571978.html

Figma to temporarily disable Al feature amid plagiarism concerns

- Figma has temporarily disabled its "Make Design" Al feature after accusations that it was replicating Apple's Weather app designs.
- Andy Allen, founder of NotBoring Software, discovered that the feature consistently reproduced the layout of Apple's Weather app, leading to community concerns.
- CEO Dylan Field acknowledged the issue and stated the feature would be disabled until
 they can ensure its reliability and originality through comprehensive quality assurance
 checks.

Source:

https://techcrunch.com/2024/07/02/figma-disables-its-ai-design-feature-that-appeared-to-be-ripp ing-off-apples-weather-app/

Nvidia faces first antitrust charges

- French antitrust enforcers plan to charge Nvidia with alleged anticompetitive practices, becoming the first to take such action, according to Reuters.
- Nvidia's offices in France were raided last year as part of an investigation into possible abuses of dominance in the graphics cards sector.
- Regulatory bodies in the US, EU, China, and the UK are also examining Nvidia's business practices due to its significant presence in the AI chip market.

Source:

https://finance.yahoo.com/news/french-antitrust-regulators-set-charge-151406034.html?

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- Meta's new dataset could enable robots to learn manual skills from human experts
- Google announces advancements in Vertex Al models
- LMSYS's new Multimodal Arena compares top Al models' visual processing abilities
- **™** Apple's Vision Pro gets an Al upgrade
- in Humanoid robots head to the warehouse
- Google Translate adds 110 languages

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Google announces advancements in Vertex Al models

Google has rolled out significant improvements to its Vertex Al platform, including the general availability of Gemini 1.5 Flash with a massive 1 million-token context window. Also, Gemini 1.5

Pro now offers an industry-leading 2 million-token context capability. Google is introducing context caching for these Gemini models, slashing input costs by 75%.

Moreover, Google launched Imagen 3 in preview and added third-party models like Anthropic's Claude 3.5 Sonnet on Vertex AI.

They've also made Grounding with Google Search generally available and announced a new service for grounding AI agents with specialized third-party data. Plus, they've expanded data residency guarantees to 23 countries, addressing growing data sovereignty concerns.

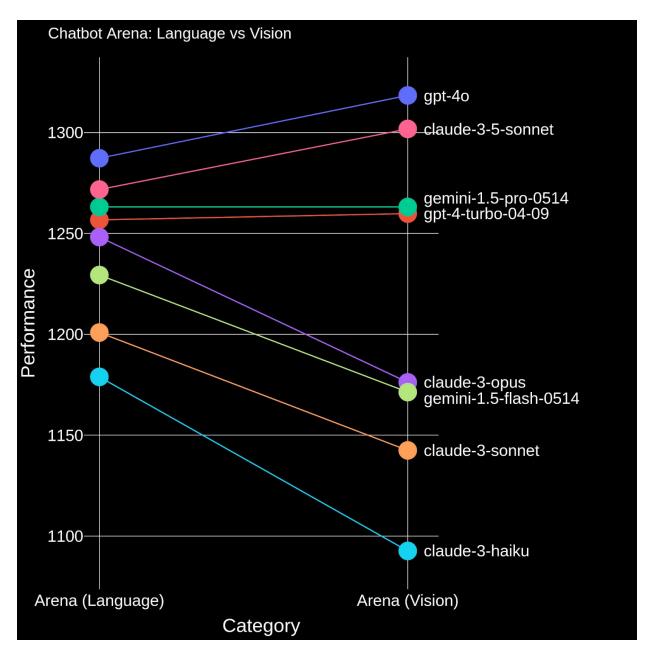
Why does it matter?

Google is positioning Vertex AI as the most "enterprise-ready" generative AI platform. With expanded context windows and improved grounding capabilities, this move also addresses concerns about the accuracy of Google's AI-based search features.

Source:

https://cloud.google.com/blog/products/ai-machine-learning/vertex-ai-offers-enterprise-ready-generative-ai

in LMSYS's new Multimodal Arena compares top Al models' visual processing abilities



LMSYS Org added image recognition to Chatbot Arena to compare vision language models (VLMs), collecting over 17,000 user preferences in just two weeks. OpenAl's GPT-40 and Anthropic's Claude 3.5 Sonnet outperformed other models in image recognition. Also, the open-source LLaVA-v1.6-34B performed comparably to some proprietary models.

These AI models tackle diverse tasks, from deciphering memes to solving math problems with visual aids. However, the examples provided show that even top models can stumble when interpreting complex visual information or handling nuanced queries.

Why does it matter?

This leaderboard isn't just a tech popularity contest—it shows how advanced AI models can decode images. However, the varying performance also serves as a reality check, reminding us that while AI can recognize a cat in a photo, it might struggle to interpret your latest sales graph.

Source: https://lmsys.org/blog/2024-06-27-multimodal

□ Apple's Vision Pro gets an Al upgrade



Apple is reportedly working to bring its Apple Intelligence features to the Vision Pro headset, though not this year. Meanwhile, Apple is tweaking its in-store Vision Pro demos, allowing potential buyers to view personal media and try a more comfortable headband. Apple's main challenge is adapting its AI features to a mixed-reality environment.

The company is tweaking its retail strategy for Vision Pro demos, hoping to boost sales of the pricey headset. Apple is also exploring the possibility of monetizing AI features through subscription services like "Apple Intelligence+."

Why does it matter?

Apple's Vision Pro, with its 16GB RAM and M2 chip, can handle advanced AI tasks. However, cloud infrastructure limitations are causing a delay in launch. It's a classic case of "good things come to those who wait."

Source:

https://www.bloomberg.com/news/newsletters/2024-06-30/apple-s-longer-lasting-devices-ios-19-and-apple-intelligence-on-the-vision-pro-ly1jnrw4

ial Humanoid robots head to the warehouse



Agility Robotics just signed a multi-year deal with GXO Logistics to bring the company's Digit humanoid robots to warehouses, following a successful pilot in Spanx facilities in 2023.

The agreement is being hailed as the first Robots-as-a-Service (RaaS) deal and 'formal commercial deployment' of the humanoid robots.

Agility's Digit robots will be integrated into GXO's logistics operations at a Spanx facility in Connecticut, handling repetitive tasks and logistics work.

The 5'9" tall Digit can lift up to 35 pounds, and integrates with a cloud-based Agility Arc platform to control full fleets and optimize facility workflows.

Digit tested a proof-of-concept trial with Spanx in 2023, with Amazon also testing the robots at its own warehouses.

Is RaaS the new SaaS? Soon, every company will be looking to adopt advanced robotics into their workforce — and subscription services could help lower the financial and technical barriers needed to scale without the massive upfront costs.

Source:

https://agilityrobotics.com/content/gxo-signs-industry-first-multi-year-agreement-with-agility-robotics

Soogle Translate adds 110 languages



Google just announced its largest-ever expansion of Google Translate, adding support for 110 new languages enabled by the company's PaLM 2 LLM model.

The new languages represent over 614M speakers, covering about 8% of the global population.

Google's PaLM 2 model was the driving force behind the expansion, helping unlock translations for closely related languages.

The expansion also includes some languages with no current native speakers, displaying how Al models can help preserve 'lost' dialects.

The additions are part of Google's '1,000 Languages Initiative,' which aims to build AI that supports all of the world's spoken languages.

We've talked frequently about Al's coming power to break down language barriers with its translation capabilities — but the technology is also playing a very active role in both uncovering and preserving languages from lost and endangered cultures.

Source: https://blog.google/products/translate/google-translate-new-languages-2024

Amazon's Q Al assistant for enterprises gets an update for call centers

The update provides real-time, step-by-step guides for customer issues. It aims to reduce the "toggle tax" - time wasted switching between applications. The system listens to calls in real-time and automatically provides relevant information.

Source:

https://venturebeat.com/ai/amazon-upgrades-ai-assistant-q-to-make-call-centers-way-more-efficient

WhatsApp is developing a feature to choose Meta Al Llama models

Users will be able to choose between two options: faster responses with Llama 3-70B (default) or more complex queries with Llama 3-405B (advanced). Llama 3-405B will be limited to a certain number of prompts per week. This feature aims to give users more control over their Al interactions.

Source: https://wabetainfo.com/whatsapp-beta-for-android-2-24-14-7-whats-new/

Bill Gates says Al's energy consumption isn't a major concern

He claims that while data centers may consume up to 6% of global electricity, AI will ultimately drive greater energy efficiency. Gates believes tech companies will invest in green energy to power their AI operations, potentially offsetting the increased demand.

Source: https://www.theregister.com/2024/06/28/bill_gates_ai_power_consumption

Perplexity appears to be scraping websites that have forbidden access through robots.txt. AWS prohibits customers from violating the robots.txt standard. Perplexity uses an unpublished IP address to access websites that block its official crawler. The company claims a third party performs web crawling for them.

Source: https://www.wired.com/story/aws-perplexity-bot-scraping-investigation

Microsoft Al chief claims content on the open web is "freeware"

Mustafa Suleyman claimed that anything published online becomes "freeware" and fair game for Al training. This stance, however, contradicts basic copyright principles and ignores the legal complexities of fair use. He suggests that robots txt might protect content from scraping.

Source:

https://www.theverge.com/2024/6/28/24188391/microsoft-ai-suleyman-social-contract-freeware

Some Apple Intelligence features may be put behind a paywall

Apple Intelligence, initially free, is expected to introduce a premium "Apple Intelligence+" subscription tier with additional features, similar to iCloud, according to Bloomberg's Mark Gurman. Apple plans to monetize Apple Intelligence not only through direct subscriptions but also by taking a share of revenue from partner AI services like OpenAI and potentially Google Gemini. Apple Intelligence will be integrated into multiple devices, excluding the HomePod due to hardware limitations, and may include a new robotic device, making it comparable to iCloud in its broad application and frequent updates. Source:

https://www.techradar.com/computing/is-apple-intelligence-the-new-icloud-ai-platform-tipped-to-get-new-subscription-tier

Meta's new dataset could enable robots to learn manual skills from human experts

Meta has introduced a new benchmark dataset named HOT3D to advance AI research in 3D hand-object interactions, containing over one million frames from various perspectives. This dataset aims to enhance the understanding of human hand manipulation of objects, addressing a significant challenge in computer vision research according to Meta. HOT3D includes over 800 minutes of egocentric video recordings, multiple perspectives, detailed 3D pose annotations, and 3D object models, which could help robots and XR devices learn manual skills from human experts. Source:

https://the-decoder.com/metas-new-hot3d-dataset-could-enable-robots-to-learn-manual-skills-from-human-experts/