#### **AI News**

#### **Editorial:**

Welcome to the latest issue of AI News Magazine, where we dive deep into the cosmos of artificial intelligence to bring you the most groundbreaking developments and tireless research efforts.

Our current issue provides an in-depth look at the work from the Santa Fe Institute, studying the abstraction abilities of state-of-the-art AI models like GPT-4. Despite laudable advances, it appears that appreciable gaps still separate these models from human cognition. However, rather than viewing this as a shortcoming, we see it as an exciting opportunity for continued growth.

Microsoft researchers are making significant strides in training smaller AI models with the launch of their Orca 2. Using an innovative 'Cautious Reasoning' technique, Orca 2 demonstrates outstanding reasoning abilities, better than many of its larger counterparts. We're thrilled at the potential applications as the team plans to open source Orca 2.

We take a look at the Linux Copilot project—an innovation leveraging GPTs to interact with your Linux desktop. Despite being in its nascent stage, the project holds tremendous promise and we can't wait to see what more the future holds in store.

We're also proud to introduce the latest AI model, Claude 2.1, offering improved capabilities and integration, expected to revolutionize business operations and document RPGs.

In other news, 01.AI, under Kai-Fu Lee, has made waves by releasing an LLM that outperforms larger models like Meta's Llama2-70B. Lee's ambitious vision challenges the notion that quality in AI technology is reserved for select giants.

Whilst touching on the global events shaping AI, we cannot ignore the recent OpenAI drama which came to its conclusion. We're relieved to note that things are settling down with Sam Altman reclaiming his position as CEO and the board that ousted him now dismissed. The breathtaking whirl of events caused minor delays in our previous issue and, in turn, a slightly leaner issue this time around. Moreover, it's Thanksgiving week —

a collective sigh of relief in keeping with the holiday spirit, as we all took a break from the whirl of AI goings-on to savor a slice of pumpkin pie!

As always, we extend our deepest gratitude for your continued engagement and support. Enjoy the read!

### Researchers Evaluate Abstraction Abilities of Text and Multimodal Versions of GPT-4

2023-11-21

Researchers from the Santa Fe Institute have found that despite advances in large language models (LLMs) like GPT-4, significant gaps remain in their ability to perform human-like reasoning and abstraction. The study used a benchmark called



ConceptARC to test understanding of basic concepts, with GPT-4 achieving only 33% accuracy compared to 91% for humans. Even with improved prompting strategies, fundamental differences likely persist between human and artificial intelligence.

Read more...

### Orca 2 has splashed!

2023-11-21

Microsoft researchers have developed a technique, "Cautious Reasoning", enabling smaller AI models to match the reasoning capabilities of larger ones. The method, built on the LLaMA architecture, trains smaller models to learn effective reasoning strategies rather than just mimicking outputs. The new AI

model, Orca 2, outperformed other models of similar size in tests, demonstrating impressive reasoning abilities. The team plans to open source Orca 2, potentially sparking a new wave of efficient AI applications.

Read more...



# Linux Copilot: Interacting with Linux Desktop via GPTs

2023-11-21

The Linux Copilot project uses Generative Pretrained Transformers (GPTs) to perform tasks on a Linux desktop. It creates an authenticated API server that listens for requests from your GPT and performs actions such as screensaver locking/



unlocking, opening URLs, copying content to clipboard, and file operations. The project is still in development with plans to add more features and improve context awareness.

Read more...

### **Introducing Claude 2.1**

2023-11-21

Claude 2.1, the latest AI model, offers a 200K token context window, reduced hallucination rates, and a new beta feature: tool use. The model can process large amounts of data, provide more accurate outputs, and integrate



with existing processes and APIs. It also offers improved cost efficiency and is available over API in the Console. The advancements aim to solve concrete business problems and deploy AI across operations with greater trust and reliability.

Read more at Anthropic...

### AI startup 01.AI releases open-source LLM that beats Meta's Llama 2

2023-11-24

Chinese AI startup 01.AI, led by Kai-Fu Lee, has achieved a \$1 billion valuation in under eight months. The company's open-source AI model, Yi-34B, outperforms larger models like Meta's Llama2-70B and Falcon-180B, thanks to high-



quality data used in training. The models are available for non-commercial and research purposes under the Apache 2.0 license. Lee aims to compete with OpenAI's GPT-4 with 01.AI's next model.

Read more at THE DECODER...

## Putin says West cannot have AI monopoly so Russia must up its game

2023-11-25

Russian President Vladimir Putin has announced plans to approve a new, more ambitious strategy for the development of artificial intelligence (AI) in Russia. Despite setbacks due to the Ukraine war and Western sanctions, Putin emphasized



the need for Russia to compete in the global AI sphere, currently dominated by China and the U.S. The new strategy will include expanded research, improved access to supercomputers, and enhanced AI education.

Read more at Reuters...