

Future AI Trends & Resources for Staying Updated

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Agenda

- **Summary of Previous discussions**
- **Future Trends**
 - **Multimodality**
 - **Low code no code**
 - **Artificial General Intelligence (AGI)**
 - **Robotics**
- **Resources**
 - **News Letters**
 - **Youtube channels**
 - **Podcast**
 - **Top AI Influencers**
 - **Other Resources**
- **SADH**

Summary of Previous discussions

- Intuition behind Transformers
- Introduction to Large Language models
- Prompt Engineering
- LangChain
- Retrieval Augmented Generation (RAG) for LLMs
- LLM Fine-tuning with LoRA

Future Trends

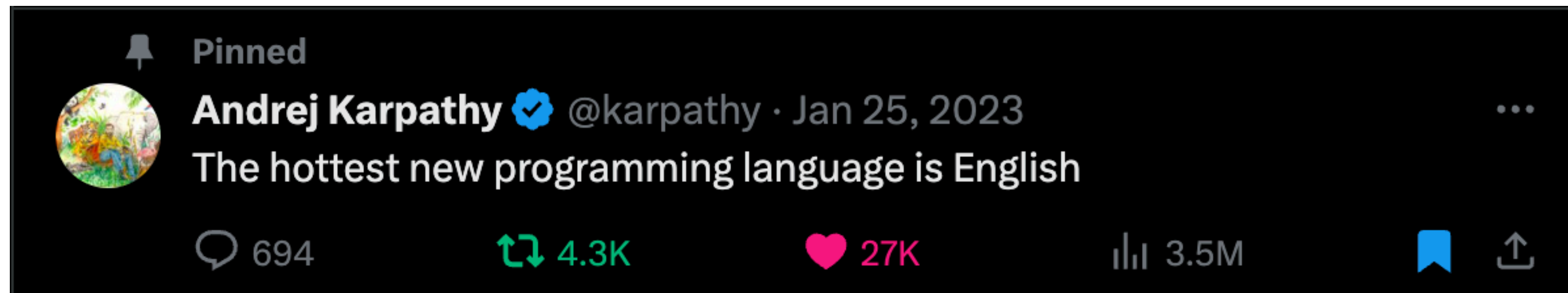
Multimodality

- ChatGPT can now see, hear, and speak
- Meta's Smart Glasses
- The Dawn of LMMs: Preliminary Explorations with GPT-4V(ision)
- Awesome-Multimodal-Large-Language-Models
 - LLaVa (Large Language and Vision Assistant)
 - CogVLM
 - Qwen-VL
 - BakLLaVA
 - FUYU

Future Trends

Low Code No Code

- Next Generation Programming Language by VP of AWS
- Google's New AlphaCode 2



- Make ChatGPT your coding companion

Future Trends

Artificial General Intelligence(AGI)

- Sam Altman’s Definition of AGI
- Meta is developing open source AGI, says Zuckerberg
- Self Improvement is a way to AGI
- Importance of adding Search to Neural Networks
- Levels of AGI: Operationalizing Progress on the Path to AGI
- Sparks of Artificial General Intelligence: Early experiments with GPT-4

Levels of AGI

Performance (rows) x Generality (columns)	Narrow <i>clearly scoped task or set of tasks</i>	General <i>wide range of non-physical tasks, including metacognitive abilities like learning new skills</i>
Level 0: No AI	Narrow Non-AI calculator software; compiler	General Non-AI human-in-the-loop computing, e.g., Amazon Mechanical Turk
Level 1: Emerging <i>equal to or somewhat better than an unskilled human</i>	Emerging Narrow AI GOFAI (Boden, 2014); simple rule-based systems, e.g., SHRDLU (Winograd, 1971)	Emerging AGI ChatGPT (OpenAI, 2023), Bard (Anil et al., 2023), Llama 2 (Touvron et al., 2023), Gemini (Pichai and Hassabis, 2023)
Level 2: Competent <i>at least 50th percentile of skilled adults</i>	Competent Narrow AI toxicity detectors such as Jigsaw (Das et al., 2022); Smart Speakers such as Siri (Apple), Alexa (Amazon), or Google Assistant (Google); VQA systems such as PaLI (Chen et al., 2023); Watson (IBM); SOTA LLMs for a subset of tasks (e.g., short essay writing, simple coding)	Competent AGI not yet achieved
Level 3: Expert <i>at least 90th percentile of skilled adults</i>	Expert Narrow AI spelling & grammar checkers such as Grammarly (Grammarly, 2023); generative image models such as Imagen (Saharia et al., 2022) or Dall-E 2 (Ramesh et al., 2022)	Expert AGI not yet achieved
Level 4: Virtuoso <i>at least 99th percentile of skilled adults</i>	Virtuoso Narrow AI Deep Blue (Campbell et al., 2002), AlphaGo (Silver et al., 2016, 2017)	Virtuoso AGI not yet achieved
Level 5: Superhuman <i>outperforms 100% of humans</i>	Superhuman Narrow AI AlphaFold (Jumper et al., 2021 ; Varadi et al., 2021), AlphaZero (Silver et al., 2018), StockFish (Stockfish, 2023)	Artificial Superintelligence (ASI) not yet achieved

Future Trends

Robotics

- PaLM-E: An Embodied Multimodal Language Model
- Optimus - Gen 2
 - A post by Jim Fan
- Open X-Embodiment: Robotic Learning Datasets and RT-X Models
- Stanford's Mobile ALOHA

Resources

Newsletters

- **Ahead of AI**
- **AI Tidbits**
- **Elvis's Blog**
- **NLP Newsletter** | **DAIR.AI**
- **The Rundown AI**
- **Ben's Bites**
- **Future Tools**
- **Superhuman**
- **Deep Learning Weekly**
- **Alpha Signal**

You can read & also listen to them on <https://substack.com/> (Also available as App)

Resources

Podcast

Last Week in AI

Weekly summaries and discussion about the most interesting developments in AI, deep learning, robotics, and more!

Listen on:



[Last Week in AI](#)

Resources

YouTube Channels

- [1littlecoder](#)
- [Yannic Kilcher](#)
- [Sophia Yang](#)
- [Andrej Karpathy](#)
- [Sebastian Raschka](#)
- [Fireship](#)
- [Umar Jamil](#)

Resources

Top AI Influencers | People I follow

- Sebastian Raschka
- Chip Huyen
- Sahar Mor
- Elvis
- Bindu Reddy
- Soumith Chintala
- Jim Fan
- Rowan Cheung
- Philipp Schmid
- Jerry Liu
- Sam Altman
- Andrej Karpathy
- Harrison Chase
- Tomaz Bratanic

Resources

Other Resources

- [LocalLLaMA from Reddit](#)
- [Github Trending](#)
- [labml.ai](#)
- For Hugging Face Models:
 - [Tom Jobbins | TheBloke](#)
 - [Teknium](#)

SADH

Sarath's AI Discussion Hour | SADH in Sanskrit means “to accomplish”

- Books & Courses speak about the past; Newsletters, AI influencers & Research papers speak about tomorrow.
- A 1-hour discussion session follows reading from previous resources.
 - Rules
 - Draw motivation from Socratic Dialogue
 - Get your facts rights!
 - Never interrupt when people are talking.
- Every major revolution has brought us closer to humanness.
 - **Attention | Focus | Consciousness >> Information | Knowledge | Skill**

Thanks You

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