

The 7 Expectations on AI in 2024

The previous year witnessed significant strides in generative AI, with terms like ChatGPT and Bard gaining widespread recognition. Major investments were made in AI startups, such as Microsoft's \$10 billion contribution to OpenAI and Amazon's \$4 billion investment in Anthropic, among others. Contrary to the notion of reaching the peak of AI development, Stanford scholars argue otherwise. They anticipate larger multimodal models, new capabilities, and a heightened focus on discussions about appropriate use and regulation of this technology. The Stanford HAI faculty and senior fellows have outlined seven predictions for the future in this domain.



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1. Transformation of White Collar's Work



- This shift is poised to impact knowledge workers, including **creative professionals, lawyers, and finance experts**, who have been relatively untouched by previous technological revolutions.
- The transformation is expected to bring notable changes to these roles by enhancing capabilities without fully automating them. The ultimate goal is to improve job functions and empower workers to achieve tasks that were previously beyond their reach.

3. More AI Capabilities



- In 2024, there is an anticipated evolution in AI capabilities, moving beyond simple interactions to **performing tasks** such as making reservations and planning trips. The focus is expected to **shift towards multimedia**.
- While there has been a significant emphasis on language and image models, the increasing processing power is anticipated to enable the **development of video models**.
- This is particularly intriguing as videos capture events without the intentional curation found in text and photos, offering AI models a more comprehensive understanding of various scenarios.

5. More AI-Related Legislative



- AI policy developments in 2024 are anticipated to be significant, building on the progress made in 2023.
- The introduction of the **bipartisan CREATE AI Act** in Congress, aiming to provide **broadier access** to AI resources for **students and researchers**, received widespread support.
- In late October, President Biden's Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence underscored the administration's commitment to fostering a robust **AI ecosystem with responsible governance**.
- Further legislative action in 2024 is believed to **increase investment** in the public sector to maintain America's leadership in AI technology.

2. Proliferation of Deep Fake



- The significant advancements in multimodal models, particularly in **video generation**, may lead to increased deep fakes, where individuals appear to say things they never did.
- The year is expected to witness the emergence of new start-ups and companies releasing **larger AI models with enhanced capabilities**.
- There is a need for **vigilance** regarding current issues, particularly **disinformation and deep fakes**, which are expected to persist and potentially increase in 2024.

4. Shortage of Graphics Processing Unit (GPU)



- Concerns arise about a **global shortage of GPU processors**, which is crucial for AI operations.
- The growing trend of major companies bringing AI capabilities in-house is expected to drive up the demand for GPUs.
- The primary GPU manufacturer, **NVIDIA**, may face capacity challenges due to this increased demand.
- Nonetheless, this situation is anticipated to **drive the development** of more **cost-effective and user-friendly** hardware solutions by innovators.

6. Application of New Policies



- There is a need for clear articulation of **permissible actions and limitations regarding AI**.
- In 2023, Springer Publishing declared that while large language models could aid in drafting articles, they would not be allowed as co-authors due to concerns about accountability.
- This decision acknowledges the **evolving nature of AI policies**. Institutions and organizations should **set guidelines**, acknowledging the necessity for **continuous assessment and future refinements**.

7. Companies Need to Navigate Complicated Regulations



- By mid-2024, California and Colorado will enforce regulations on **automated decision-making in consumer privacy**, allowing **consumers to opt-out** from impactful AI applications such as hiring and insurance.
- Companies must now consider the **practical implications of mass opt-outs**, particularly in labor-intensive processes like hiring. This poses a significant challenge when numerous individuals opt-out.