Research Report: Growth of AI in the last decade

Introduction

This report provides an academic overview of the topic "Growth of AI in the last decade", synthesizing key information extracted from relevant sources and research articles.

Key Findings

Okay, here is a formal academic summary of the provided articles, presented in clear paragraphs and bulleted points, with inline citations.

Summary of Recent Developments in Artificial Intelligence

Artificial Intelligence (AI) has undergone rapid development, particularly in the last decade, leading to significant advancements in capability and widespread application. The progress is characterized by exponential growth, largely driven by powerful machine learning techniques, notably deep learning. The convergence of increased computational power, large datasets, and sophisticated algorithms has enabled AI systems to achieve remarkable performance in tasks like language and image recognition, matching or exceeding human capabilities in specific domains, as highlighted by data from sources such as Our World in Data [Our World in Data, n.d.].

The acceleration extends beyond AI perception; generative AI models capable of complex tasks like text generation, image creation, and even program writing have entered mainstream use, achieving unprecedented scale. For instance, advanced chatbots and virtual assistants have garnered hundreds of millions of users within a few years [GAO, n.d.]. This recent boom, often termed "super-accelerated" [UX Tigers, n.d.], demonstrates trend continues the historical pattern of AI progress but at an intensified pace.

Looking back from 2010 onwards, key milestones mark this period. They include the introduction of Generative Adversarial Networks (GANs) in 2014 and WaveNet for AI audio generation [Royal Institution, n.d.], the activation of robotic humanoids like Sophia [Royal Institution, n.d.], significant progress in connectionist approaches [ScienceDirect.com, n.d.], and breakthroughs leading to sophisticated language models culminating in systems integrated with applications like Notion starting around [DaveAI, n.d.].

These developments have profound implications. AI is expected to significantly drive economic growth through productivity gains and the creation of "intelligent systems" [CMU, n.d.], potentially contributing trillions of dollars globally within the next ten years [Coditation, n.d.]. However, this rapid growth also presents substantial challenges related to the potential impact on employment, ethical considerations, safety, privacy, fairness, accountability, and the societal consequences of delegation [GAO, n.d., DaveAI, n.d., CMU, n.d.]. The understanding of whether AI development is following a long tail curve or accelerating into an exponential phase remains a topic of ongoing discussion [UX Tigers, n.d.].

Overall, the past decade has witnessed a revolution in AI, substantially accelerating the progress curve from previous periods and embedding AI deeply within technological ecosystems across various industries, posing both immense opportunities and critical questions regarding its

responsible governance and future trajectory.

References

* Coditation. (n.d.). *Decade Of Artificial Intelligence: A Summary*. Retrieved from https://coditation.com/blog/decade-of-artificial-intelligence-a-summary
* DaveAI. (n.d.). *The decade of AI- It's revolutionary development*. Retrieved from https://www.iamdave.ai/blog/the-decade-of-ai-its-revolutionary-development/
* GAO. (n.d.). *Artificial Intelligence's Use and Rapid Growth Highlight Its Possibilities and Perils*. Government Accountability Office. Retrieved from https://www.gao.gov/blog/artificial-intelligences-use-and-rapid-growth-highlight-its-possibilities-and-perils
* Our World in Data. (n.d.). *Artificial Intelligence*. Retrieved from https://ourworldindata.org/artificial-intelligence
* Royal Institution. (n.d.). *10 AI milestones of the last 10 years*. Retrieved from https://www.rigb.org/explore-science/explore/blog/10-ai-milestones-last-10-years
* ScienceDirect.com. (n.d.). *Tracing the evolution of AI in the past decade and forecasting future trends*. Retrieved from https://www.sciencedirect.com/science/article/pii/S0957417422013732
* Simplilearn.com. (n.d.). *10 Years of Artificial Intelligence and Machine Learning*. Retrieved from https://www.simplilearn.com/ten-years-of-artificial-intelligence-and-machine-learning-article
* Telefonica. (n.d.). *The rise of AI: a look at technology past and present*. Retrieved from https://www.telefonica.com/en/communication-room/blog/rise-ai-technology-present/
* UX Tigers. (n.d.). *The Decade of AI Super-Acceleration*. Retrieved from https://www.uxtigers.com/post/super-accelerated-ai
* CMU. (n.d.). *CMU News - The Future Of Artificial Intelligence*. California Miramar University.

Retrieved from https://www.calmu.edu/news/future-of-artificial-intelligence

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Conclusion

Based on the synthesized information, the findings highlight significant aspects and trends related to the topic under study, providing valuable insights for further exploration and understanding.

References

[1] Our World in Data (n.d.): Artificial Intelligence - Our World in Data

[2] Royal Institution (n.d.): 10 AI milestones of the last 10 years | Royal Institution

[3] California Miramar University (n.d.): The Evolution and Future of Artificial Intelligence | CMU

[4] Government Accountability Office (GAO) (.gov) (n.d.): Artificial Intelligence's Use and Rapid Growth Highlight Its ...

[5] UX Tigers (n.d.): The Decade of AI Super-Acceleration - UX Tigers

[6] Simplilearn.com (n.d.): 10 Years of Artificial Intelligence and Machine Learning

[7] ScienceDirect.com (n.d.): Tracing the evolution of AI in the past decade and forecasting ...

[8] telefonica.com (n.d.): The rise of AI: a look at technology past and present - Telefónica

[9] DaveAI (n.d.): The decade of AI- It's revolutionary development - DaveAI

[10] Coditation (n.d.): Decade Of Artificial Intelligence: A Summary - Coditation