International Journal of Technology and Systems (IJTS)

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ISSN: 2788-6344 (Online)

Crossref

Vol. 7, Issue No. 2, pp 7 - 21, 2025



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Accepted: 11th Jan, 2024 Received in Revised Form: 11th Feb, 2025 Published: 11th March, 2025

Abstract

Purpose: Artificial Intelligence (AI) has become a powerful catalyst for change in the modern world, transforming industries, economies, and daily life. Through methods like machine learning, deep learning, and neural networks, AI systems excel at processing vast amounts of data, enabling predictive analytics, automation, and sophisticated decision-making. This paper examines feedback given in response to the launch of the DeepSeek AI model, collected from accessible sources such as YouTube.

Methodology: This research is based on video content analysis. Our search strategy led to the identification of over 300 videos published shortly after DeepSeek, a Chinese AI startup, unveiled its R1 Model in late January 2025. We selected 29 videos from individual YouTubers and 22 from YouTube podcast news outlets. The transcripts of 51 videos were generated from YouTube using Glasp, and insights were summarized in Blackbox.ai. We analyzed comments qualitatively with ChatGPT and DeepSeek. We evaluated YouTubers' comments on criteria such as strength, technology, authenticity, accessibility, user experience, downsides, and future implications. In contrast, comments from podcast channels focused on the main messages conveyed by newscasters and commentators.

Findings: DeepSeek is regarded as a significant competitor, particularly in relation to OpenAI. However, challenges are expected to arise post-DeepSeek as awareness increases that the AI competitive landscape is rapidly changing, potentially leading to a surge in AI models and intensified competition among major tech players.

A unique contribution to theory, practice, and policy: DeepSeek advances AI theory and practice by enhancing cultural adaptation in large language models, particularly for Chinese. It creates efficient architectures that cut down computational costs without compromising performance. The company provides tailored AI solutions for industries like finance and healthcare and budget-friendly tools for small businesses. DeepSeek is proficient in analyzing informal Chinese internet data, such as social media and dialects. Regarding policy, it influences AI governance frameworks in China, striving for a balance between innovation and ethics while participating in global debates on data sovereignty. By integrating Confucian ethics into AI fairness and connecting localized innovation with scalable solutions, DeepSeek tackles technical, societal, and regulatory challenges within both Eastern and international AI contexts.

Keywords: Technology, AI models, DeepSeek, OpenAI

ISSN: 2788-6344 (Online)

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1. Introduction

The widespread use of Artificial Intelligence in the world is unprecedented. The term coined by John McCarthy and characterized by Russell and Norvig [1] as having already emerged is currently substantially impacting human life across various domains, offering transformative opportunities and significant innovations and challenges. Tech giants like Google, Microsoft, and OpenAI consistently invest in their technology to meet global demand. They provide limited access software initially, followed by a complete version that requires payment for the "Get Plus" or "Upgrade" options. For instance, the OpenAI o3 mini, 40 mini, and 40, along with models like Point-E, Whisper, Jukebox, and CLIP, are free for use, although free users might face usage restrictions. These limitations prevent low-resource individuals from accessing the full version of AI models. This supports Paul Attewell's observation that in today's economy, access to modern technology is often restricted by users' financial capabilities.[2]

The recent emergence of the Chinese AI startup DeepSeek is reshaping the conventional understanding of open-source strategies, typically accessed through limited usage and full pre-paid subscriptions. DeepSeek has enabled people from all social strata to access, utilize, create, and adapt their AI model at minimal cost¹ and potentially for free². Additionally, it has caused significant disruption in the tech industry, affecting American companies like Nvidia, which experienced a notable decline in stock value. DeepSeek's innovative open-source AI tool has gained rapid popularity, even overtaking OpenAI's ChatGPT in the Apple App Store. This development has sparked concerns among investors and industry stakeholders regarding the competitive dynamics of AI technology.

Competition among AI tech companies signifies a claim to superiority over others. As is already evident, this dynamic fosters the emergence of numerous AI startups and reinforces AI as a cultural norm in every nation globally. From a cultural perspective, affordability is crucial. The ease in research, decision-making, and transactions enhances consumer empowerment and boosts consumer welfare [3]. DeepSeek seems to have reshaped the concept of "consumer welfare," broadening it to "all consumer welfare" without differentiating based on financial status, software and hardware literacy, or race and skin color. Consumers' free will is shaped not by who they are but by their ability to act without limits. They seek to feel they possess true free will [4], self-evident freedom that connects them to "others." Technology plays an essential role in this context, providing tools that foster inclusivity [5] and raising awareness about the role of AI in human life, which scholars describe as an extension of the self [6]. AI's knowledge is fundamentally based on human understanding, not vice versa. At this point, we must ponder: Could AI models surpass human intelligence? If so, which entities should we regard as competitors or adversaries? Are we referring to the tech players in AI or the AI models themselves engaging in a conflict, exchanging

¹ API (token pricing)

² R1 model chatbot

ISSN: 2788-6344 (Online)

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data without human consent, evading each other's systems, and ultimately jeopardizing classified information and bringing down the global digital infrastructure? The so-called Technology Singularity [7] resulting from our endeavors in AI education that allow it to surpass human productivity and intelligence raises concerns about its potential threat to humanity. Furthermore, the core concept behind the upcoming Singularity is that the speed of development in our technology is accelerating, and its capabilities are growing exponentially [8].

As the AI landscape evolves, it is fascinating to observe how established companies such as OpenAI have reacted to the rise of models like DeepSeek R1. Could we view this as a sign of Western AI dominance, moving beyond merely dismissing China's progress to actively attempting to undermine it? DeepSeek challenges the widespread belief that major financial commitments and substantial computational power are essential for AI advancements. Rather, its strategy highlights algorithmic efficiency, indicating that leaner, more efficient models may surpass the performance of larger, resource-heavy alternatives. In short, DeepSeek developed a product that rivals those of established American AI firms, such as OpenAI, all while utilizing less powerful hardware and fewer data resources, causing significant disruptions in the industry. This shift is seen as a potential game-changer in AI development, prompting established firms to reassess their strategies and investments. The emphasis on open-source tools by DeepSeek and their ability to empower developers aligns with a broader trend in the tech community focused on fostering transparency and collaboration.

The disruption in the technology industry is historical. The emergence of new technologies that transform how consumers, businesses, and industries function is not a recent phenomenon either. For example, in his book "Digital Culture" [9], Charlie Gere sequentially outlines the evolution of digital technology, highlighting key disruptive moments that led to today's high-tech landscape. Additionally, from Alan Turing, regarded as the father of AI (1950), to the Dartmouth Summer Research Project on Artificial Intelligence that coined the term in late 1959, followed by the design of the IBM computer in 1948, and not forgetting Marvin Minsky's Turin award in 1948 [10], these milestones represent pivotal moments that fueled technological growth and leveraged AI's potential in society. Disruptive moments consistently connect one invention to its application, functioning as a natural law that no obstacles can hinder. This paper is a comment-based analysis. It aims to analyze comments made by different social strata on YouTube in light of the rise of DeepSeek's chatbot, which has disrupted the market and raised concerns about the competitive landscape of AI technology. It focuses on uncovering whether competitiveness and rivalry are the primary concerns for AI tech players in response to criticisms directed at DeepSeek.

This paper is structured as follows: 1) The Methods section describes data collection and analysis, including information on the gathered data and the tools used for analysis; 2) The Results section outlines the specific outcomes from the qualitative analysis conducted by DeepSeek and ChatGPT, along with a comprehensive conclusion for each result; 3) Company Background, where we explain what DeepSeek is, highlighting its features, potential, and drawbacks; and finally, 4)

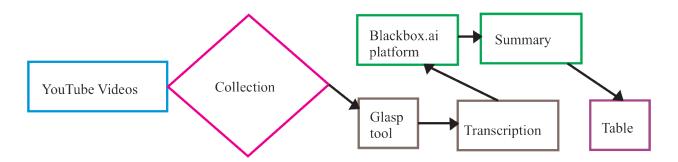


The Discussion and Conclusion sections will summarize the findings and provide brief key takeaways respectively.

2. Methods

2.1 Data collection

This analysis relies only on public sources, such as YouTube, due to the lack of research papers on the rise of the DeepSeek R1 AI model in late January 2025. We conducted a thorough video search on YouTube, focusing on videos uploaded by individual YouTubers and YouTube podcast news channels. Utilizing the Glasp tool, we transcribed the streams and then summarized the transcriptions using the Blackbox.ai platform. Both tools worked efficiently, capturing all pertinent information and executing their intended functions. Our process involved copying and pasting the transcribed data from Glasp into the Blackbox.ai platform, allowing us to condense the streamed material in the form of a summary into a table format.



Source: Author

Figure 1: Data collection path

Individual YouTube comments are organized in rows labeled Pod1, Pod2, etc., while comments from YouTube news channels are categorized by the names of the individual news organizations. We selected videos posted from late January 2025, when the DeepSeek disruption happened, sparking notable reactions from other AI technology players. We prioritized the following criteria for video selection: 1) comments from individual YouTube channels that discuss the emergence of DeepSeek, emphasizing strengths, technology, authenticity, accessibility, user experience, downsides, and potential future impacts; and 2) comments from YouTube podcast news channels that concentrate on the key messages conveyed by newscasters and commentators. Out of n=300 videos, only n=51 qualified for analysis: n=29 from individual YouTube channels and n=22 from YouTube podcast news channels.

2.2 Data analysis

We performed data analysis using <u>DeepSeek R1</u> and <u>ChatGPT</u>, where we uploaded the gathered comments in conjunction with each table search prompt. For the comments from individual YouTubers, we uploaded a Word document that includes the extracted comments organized under



headings such as strengths, technology, authenticity, accessibility, user experience, downsides, and potential future impacts. In contrast, for the feedback from YouTube podcast news channels, we uploaded a Word document that includes only the key messages shared by the newscasters and commentators. The AI models themselves categorized the findings as headings and subheadings in the result section. The latter were then discussed in the discussion section.

3. Results

3.1 YouTubers' comments on the DeepSeek AI model

We qualitatively analyzed YouTubers' comments using the <u>DeepSeek R1</u> model as our analytical tool. After uploading a Word document that included a table of YouTube-transcribed comments associated with their specific headings, we generated the following results.

a) Strengths

Cost-Effective and Open-Source

DeepSeek garners acclaim for its competitive pricing, open-source framework, and capability to operate locally, making advanced AI accessible to individuals and smaller organizations.

Performance

DeepSeek rivals or surpasses proprietary models like OpenAI in certain tasks (e.g., coding, math, reasoning) and benchmarks, often at a significantly lower cost.

Flexibility

DeepSeek's users can adjust and refine the model, promoting innovation and integration across various applications.

Table 1: YouTubers' comments on the DeepSeek AI model

(Place here)

b) Weaknesses

• Speed and Accuracy

DeepSeek performs slower response times than OpenAI, sometimes shows inaccuracies (such as in image recognition and code errors), and finds it challenging to handle complex or nuanced tasks.

• Privacy and Compliance

DeepSeek's ambiguities in data handling and adherence to international standards, such as GDPR, are concerning.

c) Future Impact

• Market Disruption

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DeepSeek challenges proprietary models by reducing entry barriers, possibly steering attention towards open-source AI, and promoting community-driven innovation.

• Strategic Shifts

DeepSeek's efficiency and cost-effectiveness might compel larger businesses to reevaluate their pricing and development approaches, thereby speeding up its adoption in B2B and research environments.

Overall, individual YouTuber comments suggest that DeepSeek stands out as a key player in the AI landscape. It balances cost-effectiveness and flexibility while offering potential speed, accuracy, and compliance improvements. Its open-source framework drives increased accessibility and competition in the AI sector.

3.2 YouTube podcast news channels comment on the rise of DeepSeek

Through qualitative analyses using <u>ChatGTP</u> as our analytical tool, we uploaded a Word document with insights from the YouTube newscasters and commentators, resulting in the following outcomes:

- *a) Transformative Potential:* News channels consistently highlight DeepSeek's ability to shake up the AI scene, underlining its open-source characteristics and cost-effectiveness as crucial elements. It is viewed as a formidable rival to models such as OpenAI;
- **b)** <u>Wider Accessibility</u>: DeepSeek is commended for its functionality on lower-spec hardware, indicating its potential to democratize AI access for small businesses, developers, and researchers;
- c) <u>Market Impact:</u> DeepSeek's open-source model is viewed as a driving force for innovation and competition in the AI market, especially for industries looking for affordable, customizable AI solutions;
- d) <u>Ethical and Legal Concerns</u>: Although DeepSeek promises innovation, newscasters and commentators raise ethical concerns. These include allegations regarding using OpenAI's datasets and adherence to regulations such as GDPR (General Data Protection Regulation).
- *e)* <u>Varied Responses to Features</u>: Although DeepSeek receives praise for its reasoning and coding skills, its slower response times and difficulties with image recognition are noted as drawbacks.

 Table 2: YouTube podcast news channels on DeepSeek AI models

(Place here)

f) <u>Driven by community Growth</u>, Numerous remarks highlight that the open-source aspect can enable swift advancements through community involvement, promoting collaboration in AI development.

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This analysis of newscasters' and commentators' comments suggests that DeepSeek's rise presents both opportunities and challenges. Its affordability and open-source model could democratize access to AI; however, ethical and performance issues may hinder rapid adoption. Addressing these challenges could significantly impact the AI industry by promoting more inclusive and decentralized models.

4. Company background

Since there is limited research on DeepSeek, this section will provide its historical background and accomplishments, emphasizing the content shared by the company, AI experts, and tech websites.

DeepSeek is a Chinese AI firm that has rapidly emerged as a disruptive player in the global AI landscape. Founded in 2023 by Liang Wenfeng, a skilled mathematician and hedge fund executive, the company operates as part of High-Flyer, a quantitative hedge fund managing \$8 billion in assets [11],[12],[13]. DeepSeek-R1 is built upon its predecessor, DeepSeek-R1-Zero, which relies solely on reinforcement learning (RL) and does not utilize any prior supervised fine-tuning (SFT) data. In contrast, R1 features a multi-stage training pipeline incorporating a small amount of "cold start" data, blending RL with SFT to enhance performance and deliver more user-friendly outputs. [14]

DeepSeek has gained recognition for developing the DeepSeek-V3 model, which utilized a surprisingly low \$6 million in computing power, a fraction of the investments typically made by major U.S. tech companies. This remarkable efficiency has propelled DeepSeek's AI Assistant to the top of the free apps chart on the U.S. App Store, outpacing even ChatGPT. This milestone underscores DeepSeek's ability to achieve high performance at lower costs, prompting a reevaluation of industry standards in the global AI sector [12]. Its technological advancements are driven by a specialized research team within High-Flyer, which announced its commitment to Artificial General Intelligence (AGI) in early 2023. This team manages a cluster of 10,000 A100 chips with the goal of pushing AI capabilities beyond conventional applications to exceed human performance in economically significant tasks. The integration of these resources underscores DeepSeek's strong dedication to being at the forefront of AI, indicating a strategic alignment that may greatly impact future AI developments. [12]

Janine Heinrichs's analysis of the model's advantages and disadvantages illustrates the promise of the DeepSeek landscape [13]. She points out that DeepSeek is distinguished by its affordable API pricing, impressive performance in technical tasks, and open-source flexibility. These factors make it an attractive option for developers searching for customizable AI solutions. Nevertheless, it's important to be aware of significant risks, including its susceptibility to prompt attacks and concerns about user data privacy. DeepSeek aims to make AI accessible by creating affordable, open-source models that compete with major Western players such as OpenAI. Its mission focuses on enhancing accessibility and efficiency, utilizing China's technology ecosystem to circumvent U.S. export limitations on advanced GPUs. [11]

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Table 3: Summary of key advantages and limitations of DeepSeek

Pros	Cons
• It provides more competitive API pricing than its rivals.	• The models do not effectively prevent prompt attacks that lead to fraud, misinformation, and security risks.
 Models such as R1 and V3 excel in tasks including answering technical inquiries, generating code, and resolving problems. 	 Privacy issues arise from utilizing user data to enhance models, which brings up privacy worries.
 Numerous DeepSeek models are either fully open-source or partially open- source, enabling developers to tailor them as needed. 	
DeepSeek employs methods such as Mixture of Experts (MoE) and multi- token prediction to enhance processing speed and minimize resource usage.	
DeepSeek offers customized solutions, including DeepSeek Coder for coding and models for solving math problems.	

Source:[13]

Regarding technological innovation, DeepSeek's models feature advanced architectures designed for efficiency and scalability: 1) Mixture of Experts (MoE) activates only the relevant sections of the model for each query, minimizing computational costs. For instance, DeepSeek-V3 operates with 37B active parameters from a total of 671B, enhancing speed and resource usage [15], [16]; 2) Multi-Head Latent Attention (MLA) compresses key-value vectors to lower memory requirements, facilitating quicker training and inference [16]; 3) Reinforcement Learning (RL) is employed by the R1 model at a large scale to achieve superior reasoning capabilities, exceeding OpenAI's o1 in math and coding benchmarks [11],[13],[16]; and 4) HPC Co-Design integrates hardware infrastructure with model architecture, enabling the efficient training of large models (e.g., 671B parameters) on limited GPU clusters [16]. Like other AI models, DeepSeek has several models with distinct performance capabilities (see Table 4).

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 Table 4: Key Models and Performance

Model	Parameters/Architecture	Key Features	Performance Benchmarks
DeepSeek-V3	671B parameters (MoE architecture)	128K-token context windowOptimized for coding & reasoning	-Outperforms GPT-4 in math tasks Trails GPT-40 in multimodal reasoning
DeepSeek-R1	-Focused on reasoning	Large-scale RL training1/10th cost of OpenAI's o1	-71% accuracy on AIME 2024 math problems -Outperforms GPT-40 in DROP Reasoning (91.6%)
DeepSeek Coder	Trained on 2T tokens (87% code)	- Specializes in code generation - Supports 120+ languages	-Matches GitHub Copilot in code completion Faster response than CodeLlama-70B Janus- Pro-7Bz
Janus-Pro- 7B	7B multimodal parameters	Image understanding & generationLow-latency inference	-Outperforms DALL-E 3 in image fidelity benchmarks Beats Stable Diffusion 3 in speed

Source: [13],[17],[16]

We have also provided a brief comparative benchmark table to comprehensively understand how the DeepSeek model functions in relation to other AI models, particularly those from OpenAI. This enables us to observe instances of outperformance between the models (see Table 5).

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Table 5: Comparative Benchmarks

Metric	DeepSeek performance	Competitor Benchmark	Advantages
DROP Reasoning	91.6%	GPT-4o: 83.7%	+7.9% accuracy gap
API Cost	\$0.55/million tokens (input)	OpenAI: \$15/million tokens	~27x cheaper
Training Cost	\$6 million (R1 model)	GPT-4: ~\$100 million	16x cost efficiency
Token Throughput	12,000 tokens/sec (V3 on H100)	GPT-4: 8,500 tokens/sec	40% faster inference
Source:[15],[11],[13]	DROP -Discrete Re	easoning Over Paragrap	oh API -Application

Programming Interface

DROP-Discrete Reasoning Over Paragraph **API**-Application

Concerning the market and its application, the introduction of DeepSeek triggered a 3.4% decline on January 27, 2025, wiping out \$600 billion from Nvidia's market capitalization [11],[12]. Furthermore, GPTBots.ai had incorporated DeepSeek into their customer support system, leading to a 95% reduction in response times [18]. Nvidia's NIM had also integrated DeepSeek-R1, which enabled cost-effective AI inference on consumer GPUs [18]. At the same time, Nvidia's app reached the top of Apple's App Store in January 2025, gaining acclaim for its user-friendly features, such as investment advice and holiday planning [19]. Moreover, DeepSeek has become a central topic of global debates, with intriguing remarks questioning the authenticity of its models. This raised significant concerns about potential controversies and risks, including privacy issues, security vulnerabilities, geopolitical tensions, and ethical dilemmas.

DeepSeek poses privacy risks as all data is stored in China and subject to national intelligence laws [11],[20]. Additionally, ByteDance servers receiving encrypted data heighten concerns about possible surveillance [20]. There are also security risks due to exposed API keys and publicly accessible chat logs, making them vulnerable to prompt injection attacks [11],[20]. These sovereignty and ethical dilemmas have prompted multiple organizations to ban DeepSeek, including agencies from the Australian government, the Indian central government, Italy, NASA, South Korea's Ministry of Industry, Taiwan's government offices, the Texas state government, the U.S. Congress, the U.S. Navy, and the U.S. Pentagon [11]. Additionally, DeepSeek has been criticized for producing harmful content more often than its competitors and has faced accusations of plagiarism from OpenAI.

The R1 model's improvements in reasoning skills and broader global partnerships position DeepSeek to potentially revolutionize AI accessibility as long as it aligns innovation with ethical

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responsibilities [12],[13],[17]. Despite criticism and tough moments, DeepSeek AI's open-source model and affordability position it as a strong competitor to U.S. AI dominance. However, its success going forward relies on addressing privacy concerns, improving security, and navigating geopolitical hurdles.

5. Discussion

This section features two subsections. The first subsection will focus on discussions related to individual YouTubers' comments. In contrast, the second will address comments from YouTube newscasters and commentators based on outcomes from the ChatGPT and DeepSeek analyses.

5.1 YouTubers

Numerous YouTubers commend DeepSeek for its attractive pricing strategy and economical deployment. They point out that by providing access to various models at a significantly lower price than traditional offerings, DeepSeek effectively competes with established companies like OpenAI. Many comments emphasize that its lower prices enable a wider array of users and organizations to utilize advanced AI. DeepSeek is particularly noted for its budget-friendly, open-source approach and unique "thinking out loud" feature. Nonetheless, broader reports from outlets like The Guardian imply that its disruptive impact arises more from its economic and strategic influence than from any technological advantage [21]. The Guardian indicates that the Chinese startup's capability to achieve comparable results at much lower costs challenges traditional Silicon Valley norms, which could alter investment strategies and market forecasts.[21],[17]

The varied yet overlapping evaluations from YouTubers' comments create a detailed perspective: DeepSeek receives widespread praise for its innovative, cost-effective, and transparent AI approach, already putting pressure on traditional U.S. models. Nonetheless, its slower speed, sporadic technical issues, and lingering ethical concerns somewhat diminish this excitement. Ultimately, while DeepSeek's advancements could make sophisticated AI more accessible and spark fresh competitive dynamics in the sector, its enduring success hinges on resolving performance challenges and navigating intricate legal and ethical terrains. These insights resonate with broader industry trends highlighted in recent reports from The Guardian and The Times, emphasizing the disruptive potential and challenges faced by next-generation AI models developed amidst resource limitations and geopolitical pressures. [21],[22]

If DeepSeek continues to evolve and address its performance and ethical challenges, it could reshape the AI ecosystem by lowering barriers to entry, stimulating innovation, and potentially shifting the balance of power in the AI market. Many of the negative feedback YouTubers give concerns about ethical and legal challenges (e.g., Pod 28, Pod 30). Critics point to potential intellectual property issues (with claims of distillation from proprietary models) and data privacy risks, especially given the geopolitical context of a Chinese-developed AI. As *Business Insider* and *WSJ reported*, industry voices emphasize that these concerns could hinder its use in sensitive environments despite the clear advantages of cost and openness [23]. This tension

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underscores the need for DeepSeek and similar models to navigate regulatory and ethical frameworks carefully if they are to gain widespread acceptance.

5.2 YouTube newscasters and commentators

The insights gathered from the YouTube podcast news channels reveal a nuanced narrative, as commentators acknowledge both the notable strengths and crucial weaknesses of DeepSeek AI models.

The strong positive sentiment indicates that DeepSeek is largely regarded as a transformative force in the AI landscape. YouTube news channels emphasize the R1 capacity to compete with established companies such as OpenAI and Google due to its innovative and cost-effective strategies. This groundbreaking potential is rooted in its open-source framework, which enhances accessibility and encourages swift community-driven enhancements. The low amount of negative feedback in this area suggests that the idea of a more affordable yet competitive AI model appeals to both newscasters and commentators. The high positive feedback in this area shows that commentators anticipate that DeepSeek will significantly alter the competitive landscape of the tech industry. Its affordable model and quick development timeline are seen as key drivers for a larger market disruption. This could compel established companies to reassess their strategies and may lower entry barriers for innovative AI solutions. Nonetheless, some negative responses indicate skepticism about the likelihood of these market effects fully materializing or being mitigated by other obstacles.

The commentators and newscasters highlighted that DeepSeek is perceived as a technological rival and a disruptor with considerable geopolitical implications. Providing a similar product at much lower price questions the idea of American technological dominance and may compel established companies to innovate more efficiently. This sentiment is echoed in the wider industry conversation, with some media describing its emergence as a "Sputnik moment" and a serious alert for Silicon Valley. [21]

A substantial amount of the feedback received is negative, indicating considerable concern. The issues raised cover allegations that DeepSeek may be utilizing OpenAI's outputs improperly and wider concerns regarding data privacy and compliance, such as adherence to GDPR. These ethical and legal dilemmas have sparked discussions about whether DeepSeek's methods might breach legal standards or jeopardize user data security. This critical viewpoint provides an essential counterbalance to the model's technical and financial strengths. Additionally, these issues highlight the greater challenges AI models functioning in geopolitically sensitive settings encounter. Although DeepSeek's transparent strategy and cost-effectiveness are evident advantages, the lingering ethical and legal dilemmas may limit its uptake in regulated sectors or among users who prioritize privacy. [24]

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Overall, DeepSeek has the potential to boost AI innovation by reducing entry barriers. Nevertheless, the platform's long-term success will hinge on its ability to balance accessibility with strong performance and adherence to ethical standards.

6. Conclusion

Although DeepSeek is acclaimed as a groundbreaking force with the potential to reshape the AI landscape, its enduring success relies on aligning its innovative approaches with robust ethical practices and performance improvements. This paper examined the diverse perspectives expressed by YouTubers, newscasters, and commentators regarding the rise of the DeepSeek AI model, sourced from readily available platforms like YouTube. It also highlighted significant interventions and potential future pathways for AI. We analyzed YouTube comments using ChatGPT and DeepSeek as our analytical tools, uploading the transcript in Word format. Both tools performed effectively; however, DeepSeek occasionally required lengthy waiting periods and sometimes halted the processing entirely. The analysis outcomes revealed that the recent disruption caused by the DeepSeek model in the AI tech industry sparked competition and rivalries among its counterparts. The most reasonable response to the latter behavior of the counterparts is that DeepSeek emerged as a transformative player in AI, balancing affordability and adaptability with room for improvement in speed, precision, and compliance. Its open-source model positions it as a catalyst for broader AI accessibility and competition. As consumers, we find ourselves in the midst of this technological rivalry, encountering risks to our data privacy no matter which side wins. The ongoing competition between Chinese and American tech companies is set to influence the future of AI, carrying important consequences for innovation, regulation, and consumer rights. The outcome is still unknown, but the stakes are considerable for everyone involved.

7. Future works

This analysis's inconclusive results indicate that further research is needed as DeepSeek continues contributing to the market with its models. As previously mentioned, our research concentrated on analyzing comments from news channels and commentators, focusing on their insights. Simultaneously, we evaluated comments from individual YouTubers based on various criteria, including strength, technology used, authenticity, accessibility, user experience, downsides, and future impacts. Future researchers could undertake experimental studies to broaden the understanding of DeepSeek and unlock its full application potential.

8. References

- 1. Russel, S. and P. Norvig, *Artificial intelligence: A modern approach, global edition.* Harlow: Pearson, 2016.
- 2. Attewell, P., First and Second Digital Divides. Sociology of Education, 2001. 74(252-259).
- 3. André, Q., et al., Consumer Choice and Autonomy in the Age of Artificial Intelligence and Big Data. Customer Needs and Solutions, 2018. **5**(1): p. 28-37.

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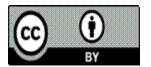


- 4. Wegner, D.M., *Précis of the illusion of conscious will.* Behavioral and Brain Sciences, 2004. **27**(5): p. 649-659.
- 5. Melumad, S., et al., *Technology-augmented choice: How digital innovations are transforming consumer decision processes*. Customer Needs and Solutions, 2020. 7: p. 90-101.
- 6. Sarah Dégallier-Rochat, M.K.-B., Nada Endrissat, Olena Yatsenko, *Human augmentation, not replacement: A research agenda for AI and robotics in the industry.* Ethics in Robotics and Artificial Intelligence, 2022. **9**.
- 7. Kurzweil, R., *The singularity is near*, in *Ethics and emerging technologies*. 2005, Springer. p. 393-406.
- 8. Kurzweil, R., *Superintelligence and singularity*. Machine Learning and the City: Applications in Architecture and Urban Design, 2022: p. 579-601.
- 9. Gere, C., *Digital Culture*. Bibliovault OAI Repository, the University of Chicago Press, 2002: p. 11.
- 10. Dartmouth Summer Research Project: The Birth of Artificial Intelligence. 1956 Accessed 6th January 2025]; Available from: https://www.historyofdatascience.com/dartmouth-summer-research-project-the-birth-of-artificial-intelligence/.
- 11. techTarget. *DeepSeek explained: Everything you need to know*. 2025 Accessed 7th January 2025]; Available from: https://www.techtarget.com/WhatIs/feature/DeepSeek-explained-Everything-you-need-to-know.
- 12. Engineering, I. *DeepSeek explained: Origins, technology, market dynamics, and ChatGPT comparison*. 2025 Accessed 7th February 2025]; Available from: https://interestingengineering.com/innovation/everything-about-deepseek-explained.
- 13. Unite.ai. *DeepSeek Review: Is It Better Than ChatGPT? You Decide*. 2025 Accessed 7th February 2025]; Available from: https://www.unite.ai/deepseek-review/.
- 14. Shrikhande, A. *Mastering LLMs Reasoning Capability with DeepSeek-R1*. 2025 Accessed 7th February 2025]; Available from: https://adasci.org/mastering-llms-reasoning-capability-with-deepseek-r1/.
- 15. tl;dv. *DeepSeek Overview: Key Features and Applications*. 2025 Accessed 7th February 2025]; Available from: https://tldv.io/blog/what-is-deepseek/.
- 16. martinFowler.com. *The DeepSeek Series: A Technical Overview*. 2025 Accessed 7th February 2025]; Available from: https://martinfowler.com/articles/deepseek-papers.html.

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- 17. Smianalysis.com. *DeepSeek Debates: Chinese Leadership On Cost, True Training Cost, Closed Model Margin Impacts*. 2025 9th February 2025]; Available from: https://semianalysis.com/2025/01/31/deepseek-debates/.
- 18. Bezinga. Aurora Mobile Enhances GPTBots.ai With DeepSeek Integration For Scalable AI Solutions: Details. 2025 Accessed 8th February 2025]; Available from: https://www.benzinga.com/trading-ideas/movers/25/02/43558681/aurora-mobile-enhances-gptbots-ai-with-deepseek-integration-for-scalable-ai-solutions-details.
- 19. Sina. *预测2025年八大趋势,DeepSeek的回答很惊艳*. 2025; Available from: https://finance.sina.com.cn/tech/internet/2025-02-01/doc-inehxsyn9720409.shtml.
- 20. TECHNICA, a. *DeepSeek iOS app sends data unencrypted to ByteDance-controlled servers*. 2005 Accessed 8th February 2025]; Available from: https://arstechnica.com/security/2025/02/deepseek-ios-app-sends-data-unencrypted-to-bytedance-controlled-servers/.
- 21. Guardian, T. DeepSeek has ripped away AI's veil of mystique. That's the real reason the tech bros fear it. 2025 Accessed 8th February 2025]; Available from: https://www.theguardian.com/commentisfree/2025/feb/02/deepseek-ai-veil-of-mystique-tech-bros-fear.
- 22. thetimes.co.uk. *Chine shocked the US in AI race. What does it mean for the UK?* 2025; Available from: https://www.thetimes.com/uk/technology-uk/article/china-ai-chatbot-us-tech-race-s709xjx9f?region=global.
- 23. Journal, T.W.S. *ChatGPT vs. Claude vs. DeepSeek: The Battle to Be My AI Work Assistant*. 2025 Accessed 8th February 2025]; Available from: https://www.wsj.com/tech/personal-tech/chatgpt-claude-deepseek-ai-features-compared-c5e1483c.
- 24. Vox. *You're wrong about DeepSeek*. 2025 Accessed 8th February 2025]; Available from: https://www.vox.com/future-perfect/397539/deepseek-artificial-intelligence-chatgpt-openai-china.



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