



Industrial Revolution 5.0 : Deep dive into Evolution and Impact of Artificial Intelligence

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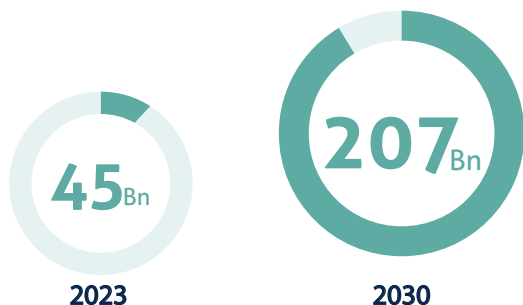
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executive summary



Executive Summary

- Artificial Intelligence (AI) applications are increasingly recognized as crucial tools for driving innovation and transformation. Indian and Global organizations acknowledge the substantial potential offered by AI, prompting considerations for fundamental changes in business operations to stay relevant.



The Global GenAI market projected to grow to ~\$207 billion by 2030 signifies the increasing significance and widespread adoption of Generative AI technologies.

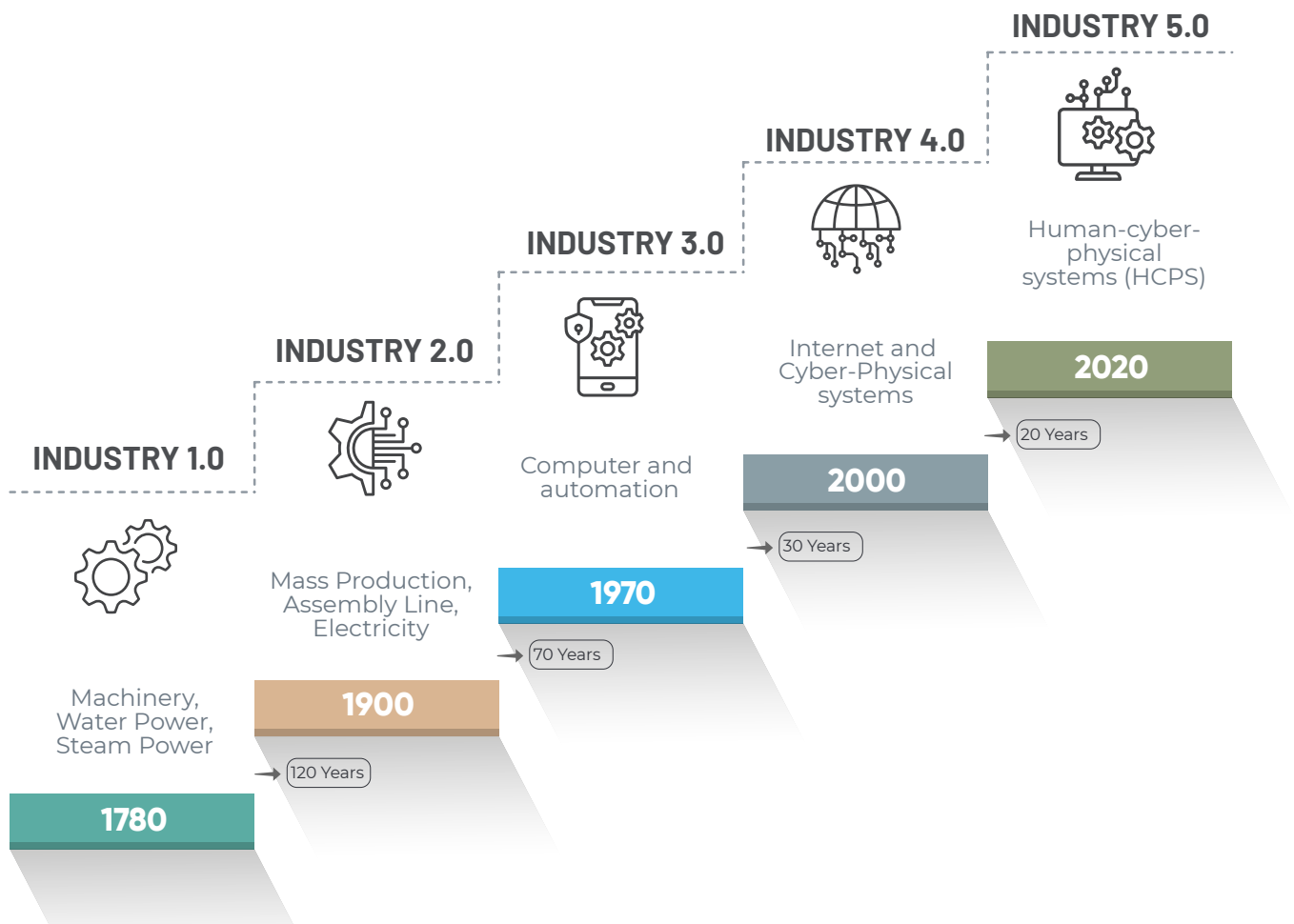
- India holds the leadership in AI skill penetration, as indicated by the AI Index Report. It positions the country at the forefront of technological advancements.
- India itself is undergoing a shift towards next-generation technologies such as Smart Cities, Smart Utilities, and IoT platforms. Realizing the full potential of these advancements can be optimized through leveraging AI applications.
- The Government of India is actively working towards positioning the country as an AI R&D hub. Initiatives to promote investments in AI technology companies and applications are being spearheaded by entities like NITI Aayog, NASSCOM, educational institutions, Indian IT firms, and technology and engineering enterprises.
- PE/VC investments in these technologies to date is estimated at around USD 30 Billion, with USA taking the elephant share of these investments. PE/VC investments in India are approaching almost a Billion USD. Size of the investment round are slowly but gradually increasing. Funding trends in Generative AI reveal a substantial surge in deals and valuations over the past years, underscoring the growing confidence and interest from investors.
- Sector-wise applications demonstrate the versatility of AI, impacting agriculture, healthcare, manufacturing, banking, retail, education, legal services, utilities, transportation, tourism, sports, media, and entertainment. Each sector experiences a unique set of benefits, from improved efficiency in manufacturing to personalized experiences in healthcare and enhanced customer interactions in retail.
- Howsoever, the advent of AI also introduces significant challenges, including complex ethical dilemmas, requiring decisions on behavior in morally ambiguous situations. Rapid technological advancements have the risk of outpacing regulatory frameworks. Bias in AI systems, stemming from biased data, leads to unfair predictions and decisions, perpetuating societal inequalities. The lack of transparency in AI development fosters mistrust, posing difficulties in debugging and maintaining systems, with potential repercussions for safety and security.
- To conclude, there is no iota of doubt that AI will surely influence the ecosystem of the 5th industrial revolution and will impact the “balance of power” among industry participants in key industries. Howsoever, both the Government and the Private sector will have to tread carefully, to ensure that we don’t over do the possibilities of predicting human behavior, to ensure that we alleviate the risk of pitfalls and disorder that our societies can get exposed to, due to malfunctioning, ill operations of AI technologies.



AI & GenAI Background



Artificial Intelligence: Shaping the Landscape of the Fifth Industrial Revolution



- Human history has been witness to 5 industrial revolutions till date:
- The fifth industrial revolution will bring the human back to the center of operation through a human-cyber-physical system for value creation.
- In the **fifth industrial revolution**, AI is shaping the Human Cyber Physical Ecosystem through advancements in autonomous systems, robotics, IoT, augmented and virtual reality, big data analytics, and cybersecurity.
- This integration facilitates smart infrastructure in areas like healthcare, transportation, utilities, and several other industrial sectors.
- AI can contribute to personalized medicine, predictive analytics, and improved diagnostics, revolutionizing the healthcare sector.
- However, as AI becomes pervasive, ethical considerations, including bias in algorithms and privacy concerns, are critical in discussions surrounding the societal impact of these technological advancements.

AI & GenAI Background

Artificial Intelligence (AI):

- **Definition:**

AI refers to computer systems that mimic human intelligence to perform tasks like problem-solving, decision-making, and language understanding.

- **Focus:**

AI is broad and can include tasks like image recognition, language translation, and game playing.

- **Purpose:**

Enhance efficiency, automate repetitive tasks, and make intelligent decisions based on data.

Generative Artificial Intelligence (Generative AI):

- **Definition:**

Generative AI is a subset of AI focused on creating new content, such as images, text, or music, rather than just analyzing existing data.

- **Focus:**

Generative AI emphasizes creativity and the ability to produce novel, human-like outputs.

- **Purpose:**

Foster creativity, enable autonomous content generation, and provide innovative solutions in areas like art, design, and content creation.

Purpose of Generative AI in various industries:

- **Creative Content Generation:**

Generative AI can produce artistic content, such as paintings, music, and literature, expanding the creative possibilities in fields traditionally associated with human expression.

- **Data Augmentation:**

In machine learning, Generative AI can be used to augment datasets by generating additional synthetic data, enhancing the robustness and diversity of training sets.

- **Innovative Design:**

In industries like product design and architecture, Generative AI can assist in creating unique and innovative designs based on specified parameters and constraints.

- **Human-Machine Collaboration:**

Generative AI can collaborate with human users to co-create content, providing tools for artists, writers, and designers to enhance their creative processes.

- **Personalized Content:**

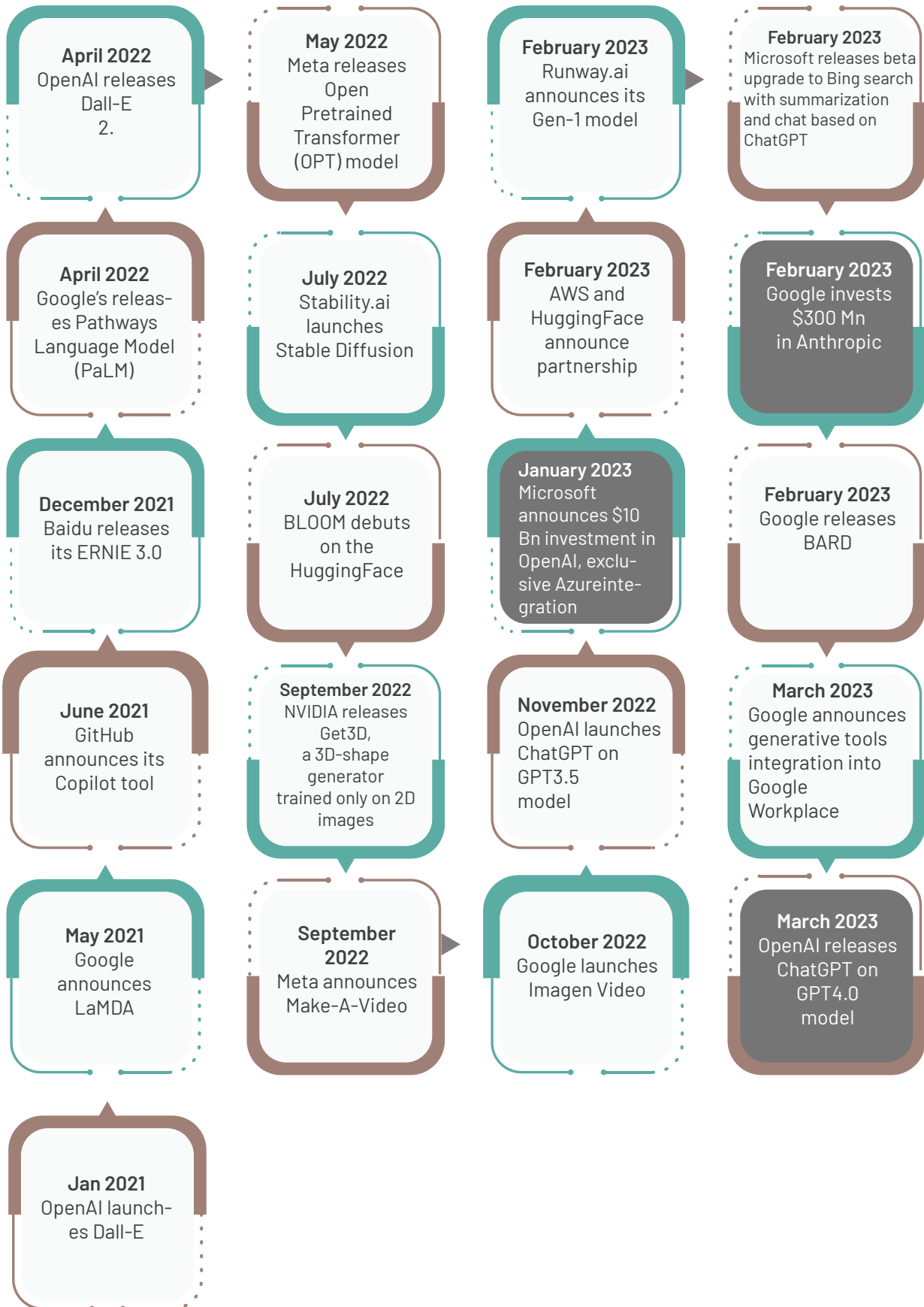
It enables the generation of personalized content recommendations, advertisements, and user experiences, tailoring products and services to individual preferences.

- **Simulation and Training:**

Generative AI can create realistic simulations for training purposes, such as training autonomous vehicles in virtual environments before real-world deployment.

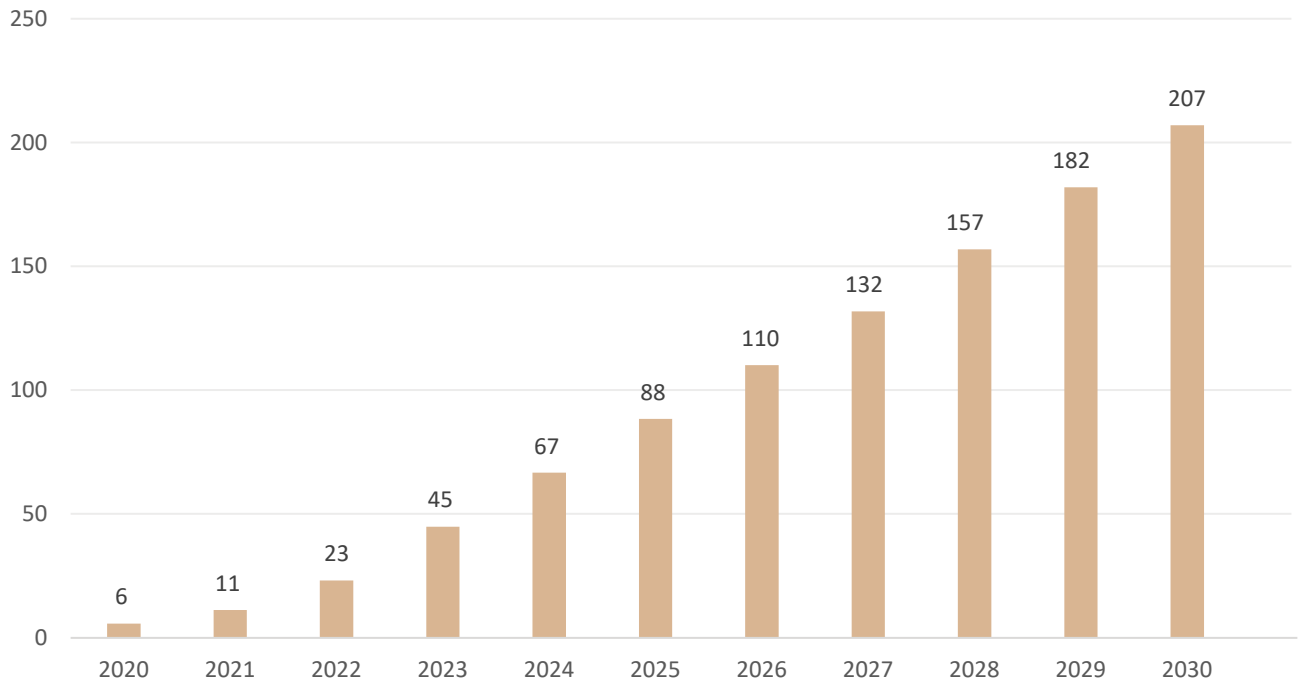
AI & Generative AI Background

Evolution of Artificial Intelligence

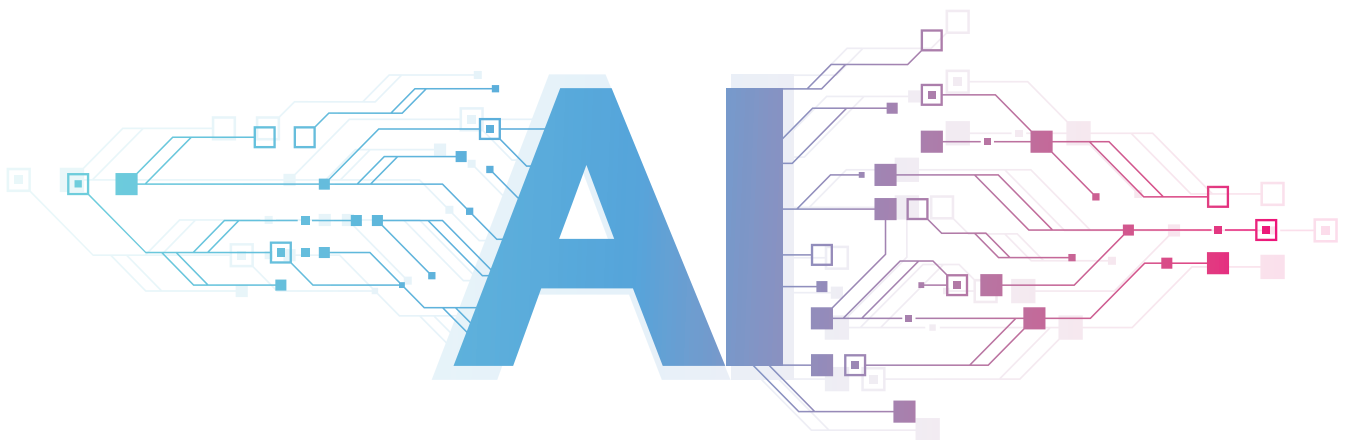


Global Generative AI Market Size

Global GenAI Market Size (USD Bn)

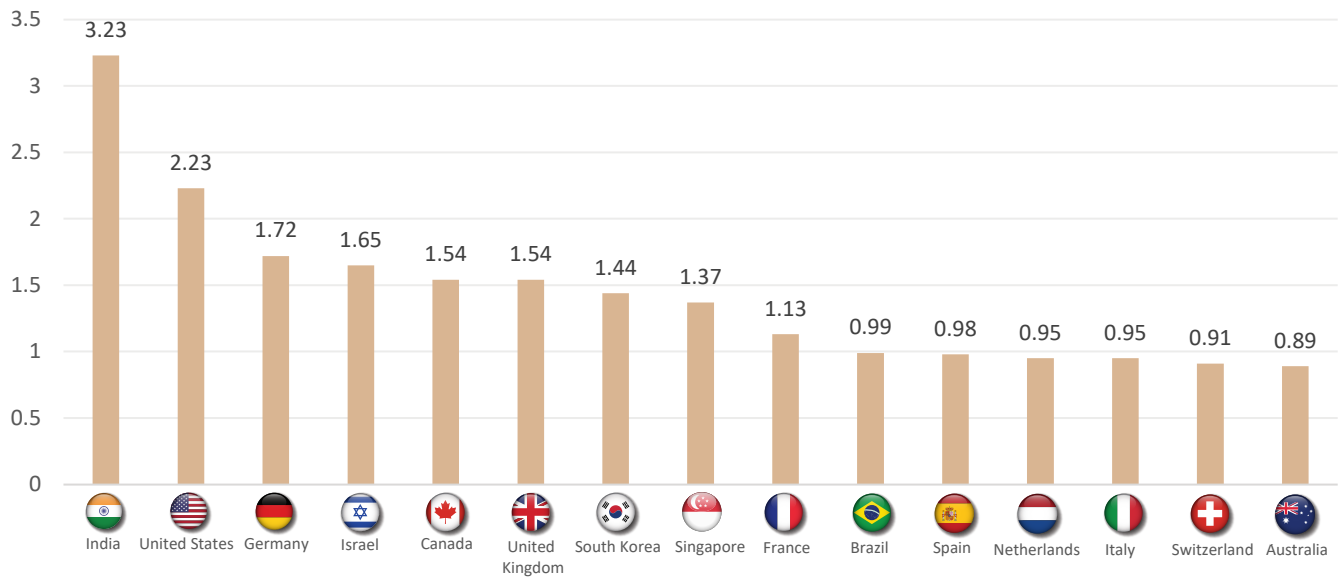


- The Global GenAI market is expected to reach \$207 billion by 2030.
- The data illustrates a compelling growth pattern in the GenAI market, indicating a substantial increase in market size over the years to come. Such growth is indicative of a strong market demand for artificial intelligence technologies and applications, suggesting potential opportunities for businesses and investors in the GenAI sector.



AI Skill Penetration

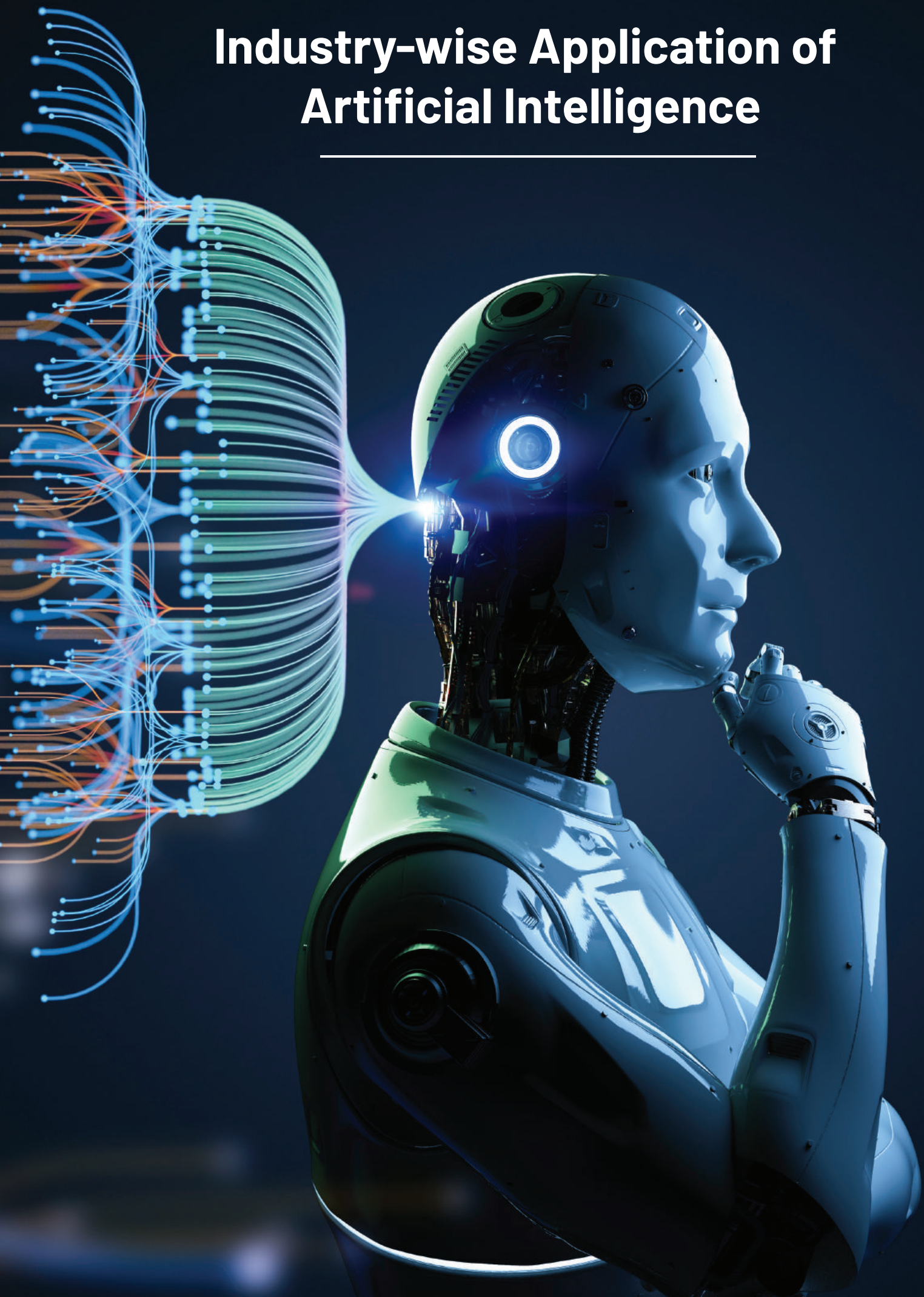
Relative AI skill penetration rate



- The report marks India first (3.23) in the AI skill penetration rates, followed by the United States (2.23) and Germany (1.72). The AI skill penetration rate is a metric created by LinkedIn that measures the prevalence of various AI-related skills across occupations.



Industry-wise Application of Artificial Intelligence



Industry-wise Application of Artificial Intelligence



Agriculture

Applications

Precision farming, crop & soil monitoring through Image Processing and Machine Learning, predictive analytics for yield optimization, automated harvesting.

Impact

Increased efficiency, reduced resource wastage, optimized crop yields.

Illustrative Startups



Manufacturing

Applications

Predictive maintenance, quality control, supply chain optimization, robotic automation.

Impact

Improved production efficiency, reduced downtime, enhanced product quality.

Illustrative Startups



Healthcare

Applications

Diagnostics, personalized medicine, drug discovery, virtual health assistants.

Impact

Improved patient outcomes, personalized treatment plans, enhanced operational efficiency and reducing physician's error.

Illustrative Startups



Banking

Applications

Fraud detection, customer service chatbots, credit scoring, algorithmic trading.

Impact

Enhanced security, improved customer experience, data-driven decision-making.

Illustrative Startups



Industry-wise Application of Artificial Intelligence



Retail

Applications

Personalized marketing, demand forecasting, supply chain optimization, chatbots for customer service.

Impact

Improved customer experience, optimized inventory management, increased sales.

Illustrative Startups



Education

Applications

Personalized learning platforms, automated grading, virtual tutors, educational chatbots.

Impact

Tailored learning experiences, efficient administrative tasks, improved student outcomes.

Illustrative Startups



Legal Services

Applications

Document review, legal research, contract analysis, predictive analytics for case outcomes.

Impact

Increased efficiency in legal processes, reduced costs, improved accuracy.

Illustrative Startups



Utilities

Applications

Predictive maintenance for infrastructure, grid optimization, energy consumption forecasting.

Impact

Improved reliability, reduced downtime, optimized resource allocation.

Illustrative Startups



Industry-wise Application of Artificial Intelligence



Transportation

Applications

Autonomous vehicles, predictive maintenance for fleets, route optimization, traffic management.

Impact

Improved safety, reduced congestion, optimized logistics.

Illustrative Startups



Tourism

Applications

Personalized travel recommendations, dynamic pricing, chatbots for customer support, language translation.

Impact

Enhanced customer experience, improved operational efficiency, increased bookings.

Illustrative Startups



Sports

Applications

Analyze player performance, track movements, Injury Prevention, sports betting and fantasy sports

Impact

Data-Driven Coaching, Improved Player Health, informed betting decisions.

Illustrative Startups



Media and Entertainment

Applications

Content Creation, Editing and VFX, Music Creation, Intelligent NPCs (Non-Playable Characters) in Gaming, Automated Journalism, Facial Recognition, Object and Scene Recognition, Personalized Advertising, Virtual and Augmented Reality (VR/AR)

Impact

Enhanced Creativity, Cost Reduction, Personalization

Illustrative Startups



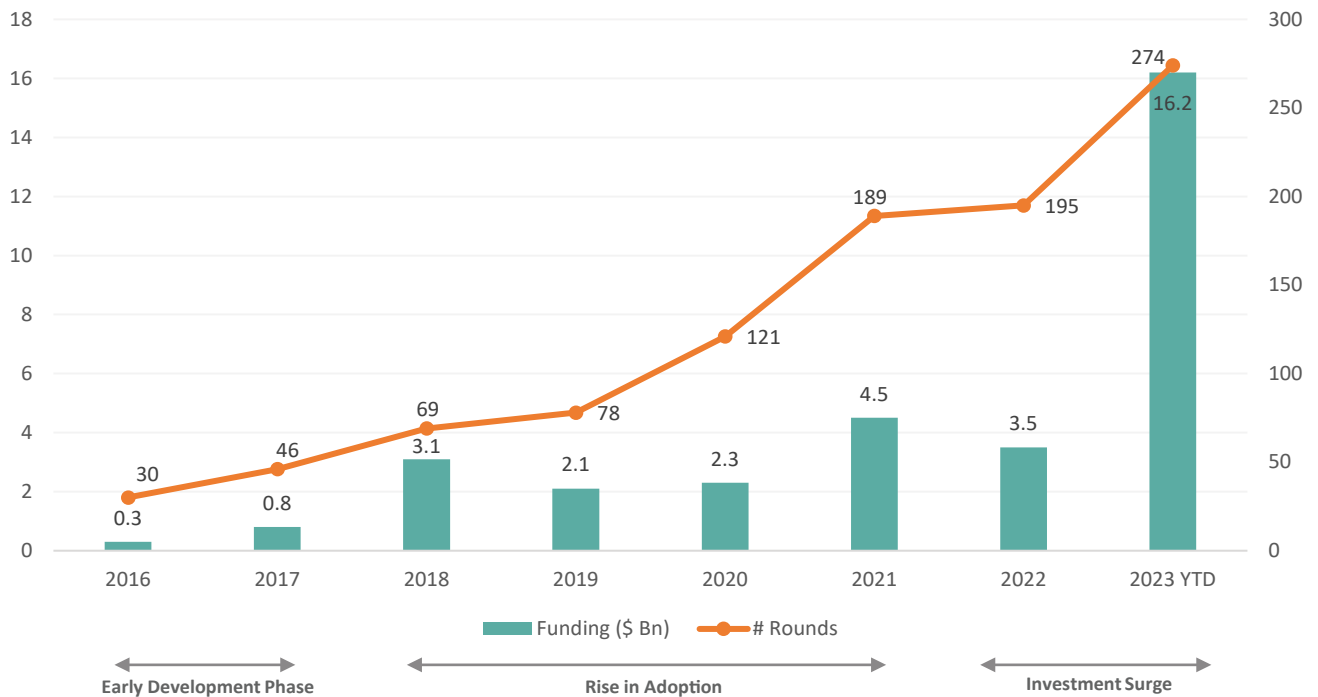
Funding Trends In Generative AI



Funding Trends In Generative AI

Investment in Generative AI has seen CAGR of ~32% over the last 5 years and United States has been at the forefront of this trend.

Y-o-Y Funding Trend



Early Development Phase:

- In its initial stages, Generative AI enterprises were in the early throes of evolution.
- Functioning solely as a conceptual framework, practical use cases were nonexistent.
- Investor participation was confined, primarily revolving around seed rounds.

Rise in Adoption:

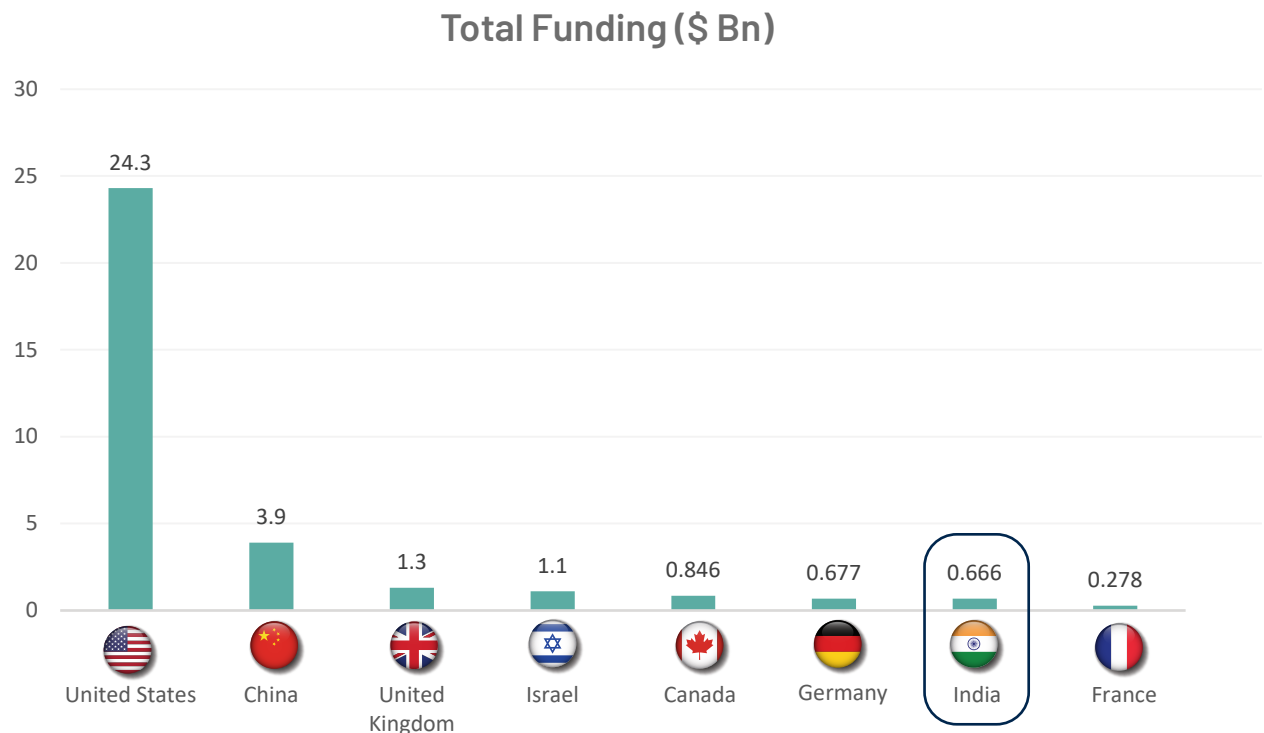
- Shifting from concept to practical applications.
- This period witnessed the introduction of commercial applications in Generative AI.
- The surge in applications heightened investor confidence, resulting in a significant surge in deals from 46 in 2017 to 189 in 2021.

Investment Surge:

- The unveiling of Chat GPT showcased the extraordinary capabilities of Generative AI.
- Growing investor interest propelled funding sizes and valuations to unprecedented peaks.

Funding Trends In Generative AI

Funding by Geography























Note: Funding includes only Equity Funding. It excludes Debt, Grant, Post-IPO and ICO funding.

- The global landscape of GenAI funding presents a dynamic scenario, with the United States emerging as the predominant leader. As of the latest data, the United States leads the pack with a staggering \$24.3 billion in GenAI funding, underscoring its robust commitment to advancing AI technologies.
- China, while significantly trailing the United States, showcases substantial growth in AI investment, totaling \$3.9 billion. This reflects China's strategic efforts to bolster its AI capabilities and compete on a global scale.
- The United Kingdom and Israel secure positions among the top GenAI funding contributors, with funding amounts of \$1.3 billion and \$1.1 billion, respectively. These nations highlight the international collaboration and innovation in AI research and development.
- Canada, Germany, India, and France also feature in the AI funding landscape, with funding ranging from \$0.278 billion to \$0.846 billion. These countries exhibit varying levels of investment, indicative of their commitment to AI-driven advancements.

PE/VC deals In India in AI space



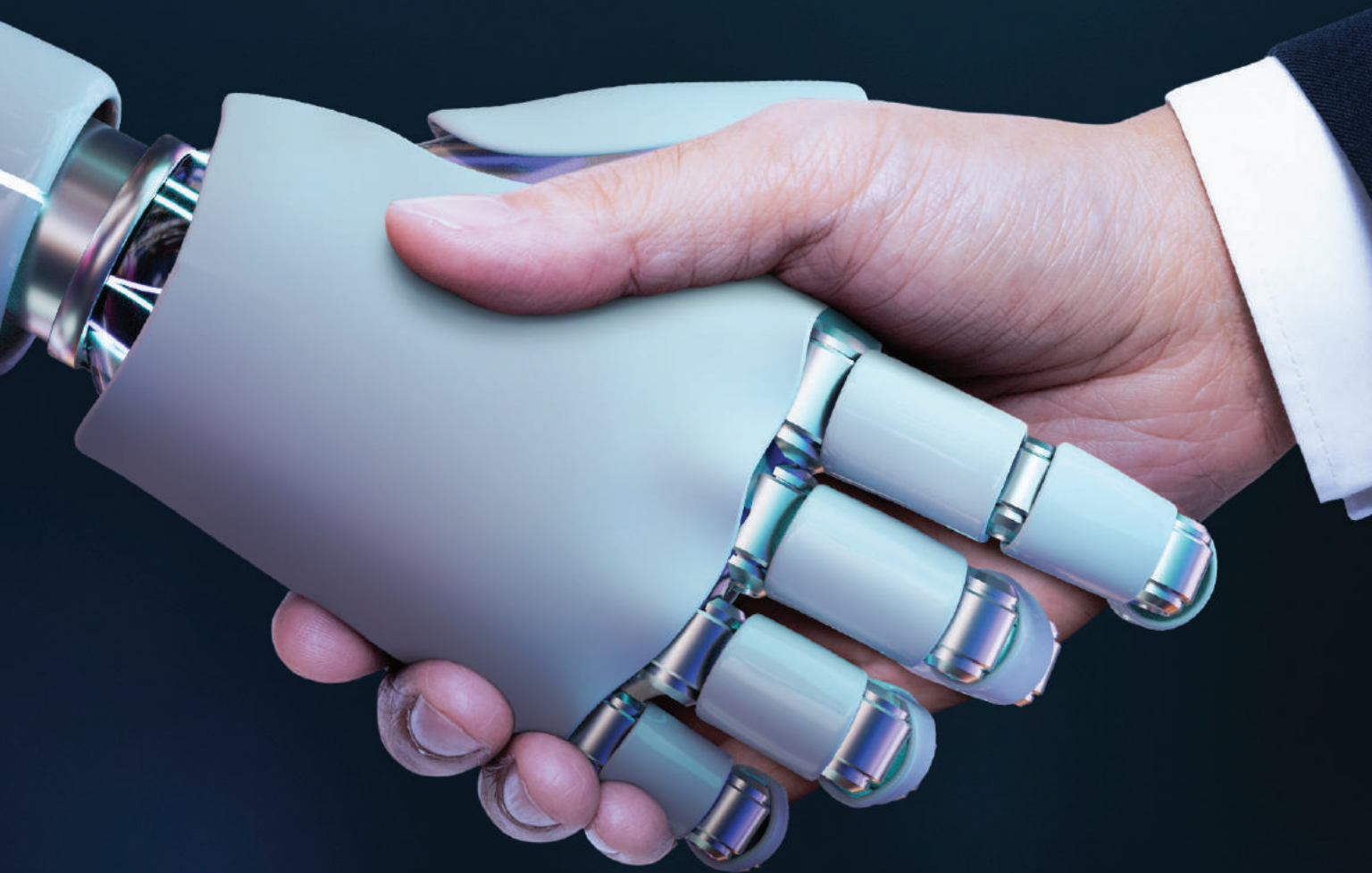
PE / VC deals in India in AI space

Sr. No.	Date	Company	Sector	Amount (US\$M)	Amount (INR Cr)	Investors	Post Money Valuation (INR Cr)
1	NA	 BLEND AI	Image Generation & Editing	3.1	NA	Surge Ventures, Surge, PointOne Capital	NA
2	NA	 Contlo	Text & Chatbots	4.3	NA	Titan Capital, Better Capital, Arjun Vaidya, Varun Alagh, Kae Capital	NA
3	01-03-2022	 CONVIN	SaaS - Analytics - Sales	2.1	16.0	Sparrow Capital, Good Capital, Kalaari Capital, Others	75.5
4	NA	 DhiWise	Code & Data	10.0	NA	Accel, India Quotient, Dholakia Ventures	NA
5	01-08-2020	 entropik	Computer Vision, Artificial Intelligence	8.0	59.9	Bharat Innovation Fund, Alpha Wave Global, IDFC Parampara Capital	300.1
6	01-10-2021	 fego	SaaS - Programming Tools - APIs & SDKs - Open Finance	1.5	11.4	QED Investors, Eximius Ventures, Saison Capital, Speciale Invest, 3ONE4 Capital, Others	51.6
7	01-07-2019	 gnani.ai	Artificial Intelligence - Speech Recognition	1.8	12.4	Samsung Ventures	67.5
8	NA	 Kombai	Code & Data	4.5	NA	Foundation Capital, Stellaris Venture Partners	NA
9	01-03-2023	 LIGHT METR CS	Computer Vision, Artificial Intelligence - Dash Cams	8.5	69.7	Peak XV Partners	466.3
10	01-08-2022	 LIGHT METR CS	Computer Vision, Artificial Intelligence - Dash Cams	1.8	14.3	Beenext	316.1
11	NA	 LimeChat	Text & Chatbots	5.0	NA	Stellaris Venture Partners, Google, IFC, Pi Ventures	NA
12	01-10-2022	 LUMIQ	Artificial Intelligence - Data Analytics - Financial Services	5.8	47.9	Season Two Ventures, Info Edge, Others	321.2
13	01-03-2021	 LUMIQ	Artificial Intelligence - Data Analytics - Financial Services	2.1	15.0	Info Edge, Others	60.0
14	NA	 MURF.A	Audio & Video	12.0	NA	Matrix Partners, Elevation Capital	NA
15	01-01-2023	 Myelin Foundry	Artificial Intelligence	3.0	24.7	Others	90.2
16	01-05-2022	 NEURALBARABE	Computer Vision, Artificial Intelligence - Content Creation	1.5	11.6	RAAY Global Investments, Exfinity Fund, Nexus Venture Partners, Others	56.0
17	NA	 OBSERVE.AI	Code & Data	214.0	NA	Zoom, Bossanova Investimentos, Y Combinator, Menlo Ventures	NA
18	01-11-2020	 OnlineSales.ai	SaaS - Advertising & Marketing	2.0	15.0	LogX Ventures, Core91 VC, IvyCap Ventures, Peak XV Partners, Others	200.0
19	01-07-2019	 ORBO	Computer Vision, Artificial Intelligence - Facial Recognition	1.6	11.0	Kettleborough VC, Dominor Investment, FounderBank Capital, YourNest, Others	56.6
20	NA	 Pixis	Code & Data	124.0	NA	General Atlantic, Celesta Capital, Chiratae Ventures, SoftBank Vision Fund	NA











PE / VC deals in India in AI space

Sr. No.	Date	Company	Sector	Amount (US\$M)	Amount (INR Cr)	Investors	Post Money Valuation (INR Cr)
21	01-03-2022	 qure.ai	Computer Vision, Analytics - Radiology	40.0	300.0	MassMutual Ventures, TEAMFund, HealthQuad, Others	1,275.1
22	01-02-2020	 qure.ai	Computer Vision, Analytics - Radiology	16.0	115.0	MassMutual Ventures, Peak XV Partners	379.1
23	NA	 Rephrase.ai	Audio & Video	12.0	NA	STechstars, Silver Lake, 8VC, Red Ventures, AV8 Ventures	NA
24	01-08-2022	 Ripik.AI	SaaS - Artificial Intelligence	4.1	32.7	VH Capital, Accel India, Others	161.8
25	NA	 Scolenut	Text & Chatbots	3.5	NA	Titan Capital, Saama Capital, Angel List India, Amit Singhal, First Principles	NA
26	NA	 senseforth.ai	Text & Chatbots	16.0	NA	Tenity, Fractal Analytics	NA
27	01-11-2022	 silverpush	Artificial Intelligence - Advertising	11.7	95.0	JM Financial, Others	474.9
28	01-07-2021	 skit.ai	Artificial Intelligence - Speech Recognition - Vernacular	25.0	183.3	Veda VC, IAN Fund, Haystack Investment, Exfinity Fund, WestBridge, Kalaari Capital, Others	629.0
29	01-04-2020	 skit.ai	Artificial Intelligence - Speech Recognition - Vernacular	5.1	38.6	IAN Fund, Haystack Investment, Exfinity Fund, Kalaari Capital, Others	108.2
30	01-01-2022	 Smiles.ai	Clinics (Dental)	23.0	172.7	Alpha Wave Global, Chiratae Ventures, Peak XV Partners, Others	359.0
31	01-08-2022	 SPOTDRAFT	Artificial Intelligence - CLM	26.0	208.0	Riverwalk Holdings, 021 Capital, Arkam Ventures, Prosus Ventures, Premjilinvest, Others	522.6
32	01-01-2022	 SPOTDRAFT	Artificial Intelligence - CLM	6.6	48.8	Riverwalk Holdings, Arkam Ventures, Premjilinvest, Others	243.8
33	01-02-2020	 SPOTDRAFT	Artificial Intelligence - CLM	2.1	14.8	021 Capital, Others	96.0
34	01-02-2019	 SPOTDRAFT	Artificial Intelligence - CLM	1.9	13.3	Boldcap Ventures, 021 Capital, Hunch Ventures, Others	56.5
35	NA	 spyne	Image Generation & Editing	7.0	NA	Accel, AngelList India, Storm Ventures, Abhishek Deo, Pentathlon Ventures	NA
36	01-12-2021	 upliance.ai	Smart Cooking Device	1.6	12.3	Rukam Capital, Rainmatter Capital, Others	60.1
37	01-08-2019	 vPhrase <small>Insights from data, in words.</small>	Artificial Intelligence - Analytics	2.0	14.0	Bharat Innovation Fund, Alpha Wave Global	48.0
38	01-07-2020	 Wobot.ai	SaaS - Computer Vision - Security	2.7	20.3	Peak XV Partners, Others	76.9
39	NA	 Zocket	Image Generation & Editing	3.0	NA	Kalaari Capital, Kettleborough VC, Jasminder Gulati	NA

Most Active Investors in AI Sector













Most Active Investors: VC-Seed

Sr. No.	Investor Name	Country	Investments in Feed*	Notable Investments in Feed*
1	 Y Combinator	United States	137	OpenAI (\$11.3B), Observe.AI (\$214M), Replit (\$202M)
2	 a16z	United States	8	OpenAI (\$11.3B), Genesis Therapeutics (\$280M), Replit (\$202M)
3	 Craft Ventures	United States	8	Voiceflow (\$38.5M), Grata (\$35.0M), CopyAI (\$13.9M)
4	 Village Global	United States	8	Forethought (\$92.2M), Gretel (\$65.5M), Lang (\$15.0M)
5	 500 Global	United States	8	Otter.ai (\$70.0M), SpotDraft (\$44.7M), Unbounce (\$39.2M)
6	 Alumni Ventures	United States	6	Unlearn (\$85.0M), Grata (\$35.0M), Synthesis (\$24.4M)
7	 Soma Capital	United States	6	Dover (\$20.1M), Durable (\$12.5M), Rosebud (\$8.8M)
8	 AIX Ventures	United States	6	Atomic AI (\$42.0M), Perplexity (\$28.8M), Ideaogram (\$16.5M)
9	 BoxGroup	United States	6	Warp (\$73.0M), Casetext (\$67.8M), Magical (\$41.0M)
10	 Liquid 2 Ventures	United States	5	Observe.AI (\$214M), Tavus (\$6.2M), Giga ML (\$3.6M)











Note: *Feed=Generative AI. The number in bracket refers to the total funding raised by the company

Most Active Investors: VC-Early Stage

Sr. No.	Investor Name	Country	Investments in Feed*	Notable Investments in Feed*
1	 Khosla Ventures	United States	12	OpenAI (\$11.3B), ThoughtSpot (\$674M), Replit (\$202M)
2	 Insight Partners	United States	11	Lightricks (\$335M), PicsArt (\$195M), Jasper (\$143M)
3	 Lightspeed Venture Partners	United States	9	ThoughtSpot (\$674M), Moveworks (\$315M), Typeface (\$206M)
4	 Sequoia Capital	United States	7	OpenAI (\$11.3B), Insilico (\$400M), Notion (\$353M)
5	 Greylock	United States	7	Adept (\$415M), Cresta (\$151M), Tome (\$81.0M)
6	 Accel	United States	6	Notion (\$353M), Ada (\$200M), Synthesia (\$157M)
7	 8VC	United States	6	AI21 Labs (\$283M), Forethought (\$92.2M), Unlearn (\$85.0M)
8	 New Enterprise Associates	United States	6	Forethought (\$92.2M), Sanalabs (\$85.0M), Waymark (\$45.0M)
9	 Google Ventures	United States	6	Typeface (\$206M), Synthesia (\$157M), Warp (\$73.0M)
10	 Menlo Ventures	United States	6	Anthropic (\$1.8B), Genesis Therapeutics (\$280M), Observe.AI (\$214M)











Note: *Feed=Generative AI. The number in bracket refers to the total funding raised by the company. Early Stage refers to series A and Series B rounds.

Most Active Investors: VC-Late Stage

Sr. No.	Investor Name	Country	Investments in Feed*	Notable Investments in Feed*
1	 Sapphire ventures	United States	5	Anthropic (\$1.8B), Thoughtspot (\$674M), Aleph Alpha (\$534M)
2	 SoftBank Vision Fund	United Kingdom	5	XtalPi (\$785M), Exscientia (\$429M), Globality (\$321M)
3	 G Squared	United States	1	OpenAI (\$11.3B), Notion (\$353M), PicsArt (\$195M)
4	 Geodesic Capital	United States	1	ThoughtSpot (\$674M), Forethought (\$92.2M), Otter.ai (\$70.0M)
5	 Iconiq Capital	United States	1	Notion (\$353M), Moveworks (\$315M), Soul Machines (\$135M)
6	 Wikus Ventures	United States	1	OpenAI (\$11.3B), Anthropic (\$1.8B)
7	 Goldman Sachs Investment Partners	United States	1	Lightricks (\$335M)
8	 K2 Global	Singapore	1	OpenAI (\$11.3B)
9	 Hopu Investments	China	1	SenseTime (\$2.8B)
10	 IRVING INVESTORS Irving Investors	United States	1	AbSci (\$223M)

Note : *Feed = Blockchain Technology-China & Taiwan. The number in bracket refers to the total funding raised by the company. Late Stage refers to series C & beyond rounds.

Most Active Investors: VC- PE

Sr. No.	Investor Name	Country	Investments in Feed*	Notable Investments in Feed*
1	 Silver Lake	United States	3	SemseTime (\$2.8B), ThoughtSpot (\$674M), Rephrase.ai (\$13.9M)
2	 Eurazeo	France	3	Corti (\$93.0M), Aqemia (\$30.2M), Swapp (\$18.5M)
3	 Warburg Pincus	United States	2	Insillico (\$400M), MDCIone (\$104M)
4	 Baring Private Equity Partners	India	2	VideoVerse (\$61.9M), Magnifi (\$4.1M)
5	 Lightspeed India	India	2	Pepper Content (\$18.9M), Rephrase.ai (\$13.9M)
6	 British International Investment	United Kingdom	1	Keplay (\$1.3M)
7	 Sorenson Capital	United States	1	Synthesis (\$24.4M)
8	 DTCP	Germany	1	Cohere (\$435M)
9	 Calao Finance	France	1	Allure Systems (\$3.6M)
10	 NextStage AM	France	1	Yseop (\$12.6M)

Note : *Feed = Generative AI. The number in bracket refers to the total funding raised by the company.

Pitfalls Of AI



Pitfalls Of AI

- **Ethical Challenges**

AI can raise complex ethical challenges, such as driverless vehicles on the same roads and streets with human drivers, robotic surgery, and urban planning (especially regarding under-represented groups in the population). Deciding how AI systems should behave in morally ambiguous situations is a challenge.

- **Regulatory and Legal Challenges**

We always develop new technologies faster than our ability to recognize where regulation is needed or to enact that regulation. This is a challenge for government and the private sector to display common concern and progress.

- **Bias and Fairness**

AI systems learn from collecting data, and data is often biased. If an AI system is biased, it most likely leads to biased predictions (which is basically what AI's output is) and that leads to biased decisions. There is a multiplier effect here, perpetuating and growing inequalities.

- **Algorithmic Bias**

Algorithms themselves can introduce bias, and therefore be more hidden than data biases. Nefarious by nature.

- **Lack of Transparency**

Producers of AI can be strongly tempted to fight transparency, and that can lead to mistrust and difficulties in debugging and maintaining AI systems.

- **Privacy Concerns**

We all know that vast amounts of personal data are out there – data on healthcare, finances, job history, ancestry, insurance, and so on. That, plus algorithmic biases, makes for big trouble.

- **Safety and Security**

In critical domains – especially newly emerging ones like autonomous vehicles or healthcare, where algorithm-based decisions clash with human value-based decision-making – safety and even deference must rule the day. In many cases, it might not.

Pitfalls Of AI

- **Energy Consumption**

Training large AI models can consume huge amounts of energy; we've already seen that in the cryptocurrency universe. When fusion energy takes hold, this will be a non-issue, but we're 20 years away from that.

- **Data Privacy and Ownership**

Who owns and controls data? What liabilities will pop up?

- **Job Loss or Displacement**

As AI advances, we are rightfully concerned for our jobs. But as with all major workplace revolutions – the PC is most relevant – while some jobs will be lost, far more jobs will be created. They'll be different, they'll be in other places, and they'll merge, but they'll be there. We just have to get used to looking for them.

- **Explainability**

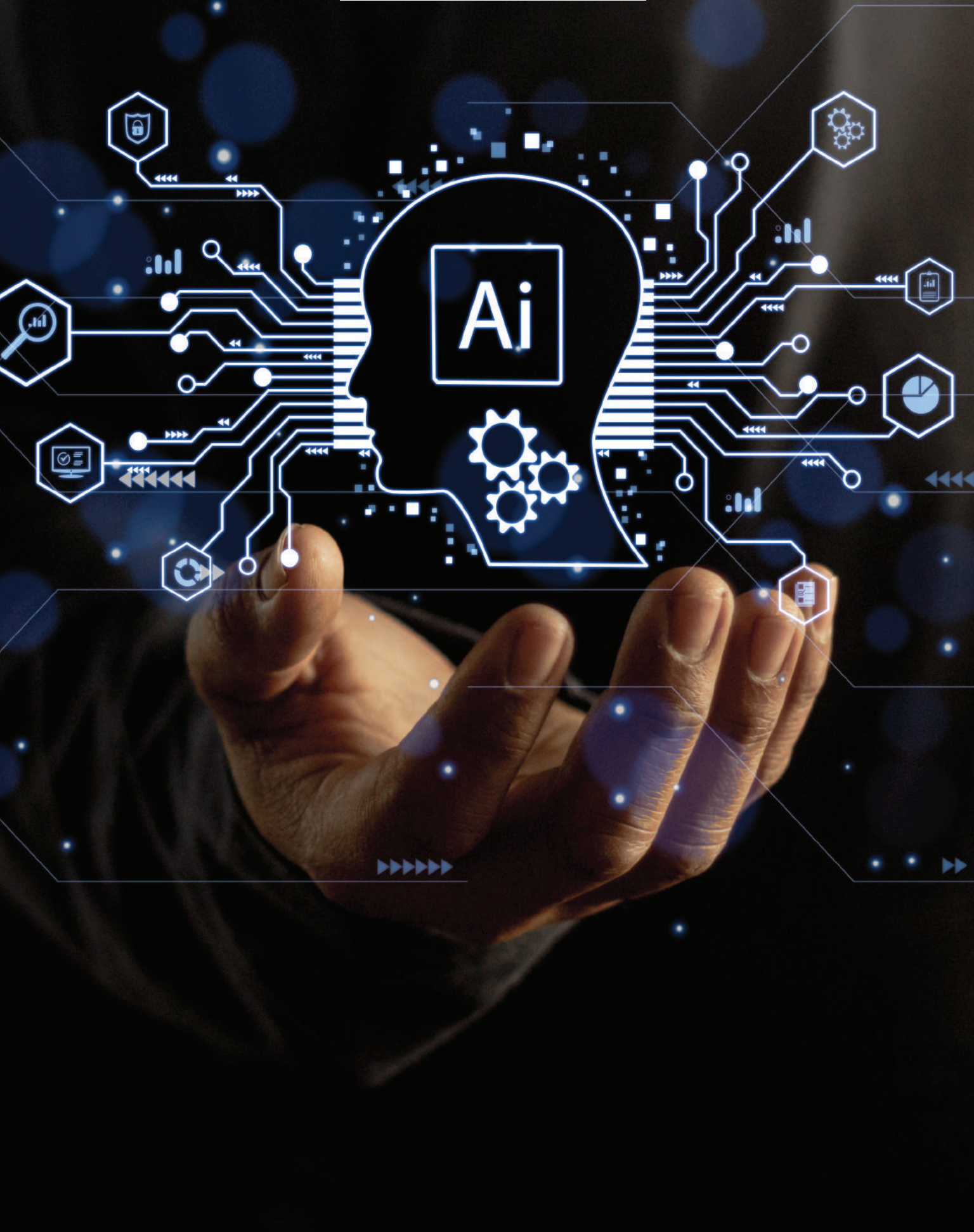
AI makes stuff up. It starts with one word and then predicts – based on biased data – what the next word should be ad infinitum. That's what's called a dumb system. But when you ask AI to explain how it arrived at its answer, it can't. That requires intelligence, and it exposes AI as an impostor in the field of intelligence.

- **Hype and Expectations**

We are overestimating what AI can do now, but underestimating what it will be able to do five years from now. Managing our expectations and using AI appropriately is the challenge.



Conclusion



Conclusion

- Artificial Intelligence (AI) applications are increasingly recognized as crucial tools for driving innovation and transformation. Global organizations acknowledge the substantial potential offered by AI, prompting considerations for fundamental changes in business operations to stay relevant. The Global GenAI market projected to grow to ~\$207 billion by 2030 signifies the increasing significance and widespread adoption of generative AI technologies.
- India holds the leadership in AI skill penetration, as indicated by the AI Index Report. It positions the country at the forefront of technological advancements.
- India itself is undergoing a shift towards next-generation technologies such as Smart Cities, Smart Utilities, and IoT platforms. Realizing the full potential of these advancements can be optimized through leveraging AI applications.
- The Government of India is actively working towards positioning the country as an AI R&D hub. Initiatives to promote investments in AI technology companies and applications are being spearheaded by entities like NITI Aayog, NASSCOM, educational institutions, Indian IT firms, and technology and engineering enterprises.
- PE/VC investments in these technologies to date is estimated at around USD 30 Billion, with USA taking the elephant share of these investments. PE/VC investments in these technologies in India are approaching almost a Billion USD. Size of the investment round are slowly but gradually increasing. Funding trends in Generative AI reveal a substantial surge in deals and valuations over the past years, underscoring the growing confidence and interest from investors.
- Sector-wise applications demonstrate the versatility of AI, impacting agriculture, healthcare, manufacturing, banking, retail, education, legal services, utilities, transportation, tourism, sports, media, and entertainment. Each sector experiences a unique set of benefits, from improved efficiency in manufacturing to personalized experiences in healthcare and enhanced customer interactions in retail.
- Howsoever, the advent of AI also introduces significant challenges, including complex ethical dilemmas, requiring decisions on behavior in morally ambiguous situations. Rapid technological advancements have the risk of outpacing regulatory frameworks. Bias in AI systems, stemming from biased data, leads to unfair predictions and decisions, perpetuating societal inequalities. The lack of transparency in AI development fosters mistrust, posing difficulties in debugging and maintaining systems, with potential repercussions for safety and security.
- To conclude, there is no iota of doubt that AI will surely influence the ecosystem of the 5th industrial revolution and will impact the “balance of power” among industry participants in key industries. Howsoever, both the Government and the Private sector will have to tread carefully, to ensure that we don't over do the possibilities of predicting human behavior, to ensure that we alleviate the risk of pitfalls and disorder that our societies can get exposed to, due to malfunctioning, ill operations of AI technologies.

Services

Valuation

- Business & Equity Valuation
- Valuation of Brands, Goodwill, Other Intangible Assets & Intellectual Property
- Valuation of Financial Securities, Instruments & Derivatives
- Valuation of Industrial Assets and Plant & Machinery
- Valuation of Real Estate
- Valuation of Infrastructure Assets & Specialized Assets
- Purchase Price Allocations (PPA) for Mergers & Acquisition (M&A)
- Impairment Studies for Tangible Assets
- Impairment Studies for Cash Generating Units, Intangible Assets & Goodwill
- Mines, Mineral Advisory and Valuation
- Valuation of ESOPs and Sweat Equity
- Valuation for Tax, Transfer Pricing and Company Law Matters
- Fairness Opinions
- Valuation under Insolvency & Bankruptcy Code (IBC)
- Determination of Swap Ratio under Mergers and Demergers
- Valuation of Inventory / Stocks and Debtors / Receivables
- Litigation and Dispute Valuation Services

Restructuring

- Turnaround Advisory and Business Transformation
- Outside NCLT – Restructuring Services
- Insolvency Professional services under IBC, 2016
- Interim Management Services
- Process Improvement and Financial Restructuring
- CRO (Chief Restructuring Officer) Services
- Priority and Interim Funding
- Process Advisors
- Pre-Pack and Cross Border Insolvency
- Advisor to Committee of Creditors
- Preparation of Resolution Plan and Information Memorandum
- Independent Bid Evaluation and vetting of Resolution Plans
- Operational Turnaround Advisory

Transaction Tax

Deal Tax Advisory (Strategic, IBC, PE/VC)

- Tax Due-Diligence
- Tax Structuring
- Deal Negotiation Review
- Transaction Documentation Review
- Post-Deal Integration

Corporate Restructuring

- Group Restructuring
- Financial/Capital Restructuring

Succession Planning

Holistic Implementation Support

- | | |
|-----------------------|-----------------------|
| • Merger/Amalgamation | • Share Buyback |
| • Demerger/Spin-off | • Business Transfers |
| • Capital Reduction | • Liquidation/Wind-up |

Investment Banking (Category 1 Merchant Bank)

- M&A Advisory:
 - Sell Side & Buy Side
 - Domestic & Cross Border
- Partner Search, Joint Ventures & Strategic Alliances
- Government Disinvestment & Privatization
- Fund Raising - Equity, Mezzanine, Structured Finance & Debt (Corporate & Project Finance)
- Distressed Investment Banking - One-Time Settlement, Priority and Interim Funding, Rescue Financing, and Buyouts
- Capital Market Advisory

Transaction Services (Due Diligence)

- Buy side due diligence; Closing due diligence
- Review of vendor due diligence report from buyer's perspective
- Vendor due diligence; Vendor assistance
- Advice on transaction documents - share purchase (SPA), business transfer (BTA), IBC related
- Assistance in deal negotiation
- Project / business risk assessment which includes review of key technical aspects of the project / business
- Setting up and managing dataroom

Risk Advisory

Business Risk Advisory Services

- Internal Audit Outsourcing & Co-sourcing
- Business Process Improvement Studies
- Implementing ERM Framework
- SOX / IFC Controls Advisory
- Agency for Specialized Monitoring (ASM)
- Automated Segregation of Duties Review
- Compliance Monitoring Framework
- Digital Transformation
- Third Party Risk Assessment
- IA Staff Augmentation Support Services

Information Technology Risk Advisory Services

- Cyber Vulnerability Management
- ISO Advisory & Certification Assistance
- Data Privacy & Protection
- Cyber Threat Management
- Compliance Advisory
- Business Continuity Planning

Process Risk Advisory Services

- Techno Economic Feasibility Studies & Viability Assessment
- Lender's & Investor's/Independent Engineer Services
- Chartered Engineers Opinion & Certification

Dispute & Litigation Support

- Valuation Services
- Damages & Loss of Profit Analysis
- Independent Expert testimony
- Anti-trust & Competition Advisory
- Post-Acquisition Disputes, Joint Venture & Shareholder Disputes
- Civil & Construction Disputes, Real Estate Disputes
- Intellectual Property Rights Dispute



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