Artificial Intelligence and its Impact on World of Work

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An Autonomous Body of Ministry of Labour and Employment, Government of India

Overview

> "Loss of jobs is AI's most feared disruption, but history has shown that work does not disappear due to technology, only its nature changes. We need to invest in skilling & re-skilling our people for AI-driven future."
>
> ***-Prime Minister of India at France AI Summit, 2025***

- Technological progress brings productivity and innovation, but also disruption and job displacement, echoing patterns from past industrial revolutions.
- It could boost global GDP by 7% and India's GDP by $438 billion by 2030, transforming sectors through generative and adaptive technologies.
- While AI enhances efficiency and job creation, it also poses risks of inequality, displacement, and wage compression, especially in low-skill sectors.
- The AI market is projected to surpass $1 trillion by 2031, driven by massive investment across banking, retail, manufacturing, and professional services.
- Younger generations (18–34) show 84% trust and high adoption of AI, signaling a future workforce increasingly shaped by AI literacy and readiness.

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Objectives

To study the impact of Artificial Intelligence on workers across different economic sectors.

To evaluate the responses of educational system in the qualification & requalification of the workforce for this new scenario.

To examine the evolution of public services and its impact on labour market in context of integration with Artificial Intelligence

Methodological Framework

The study adopts a mixed-method approach combining quantitative and qualitative analysis based entirely on secondary literature.

It draws from academic research, government reports, and global institutions such as ILO, OECD, and WEF to explore AI's impact on the world of work.

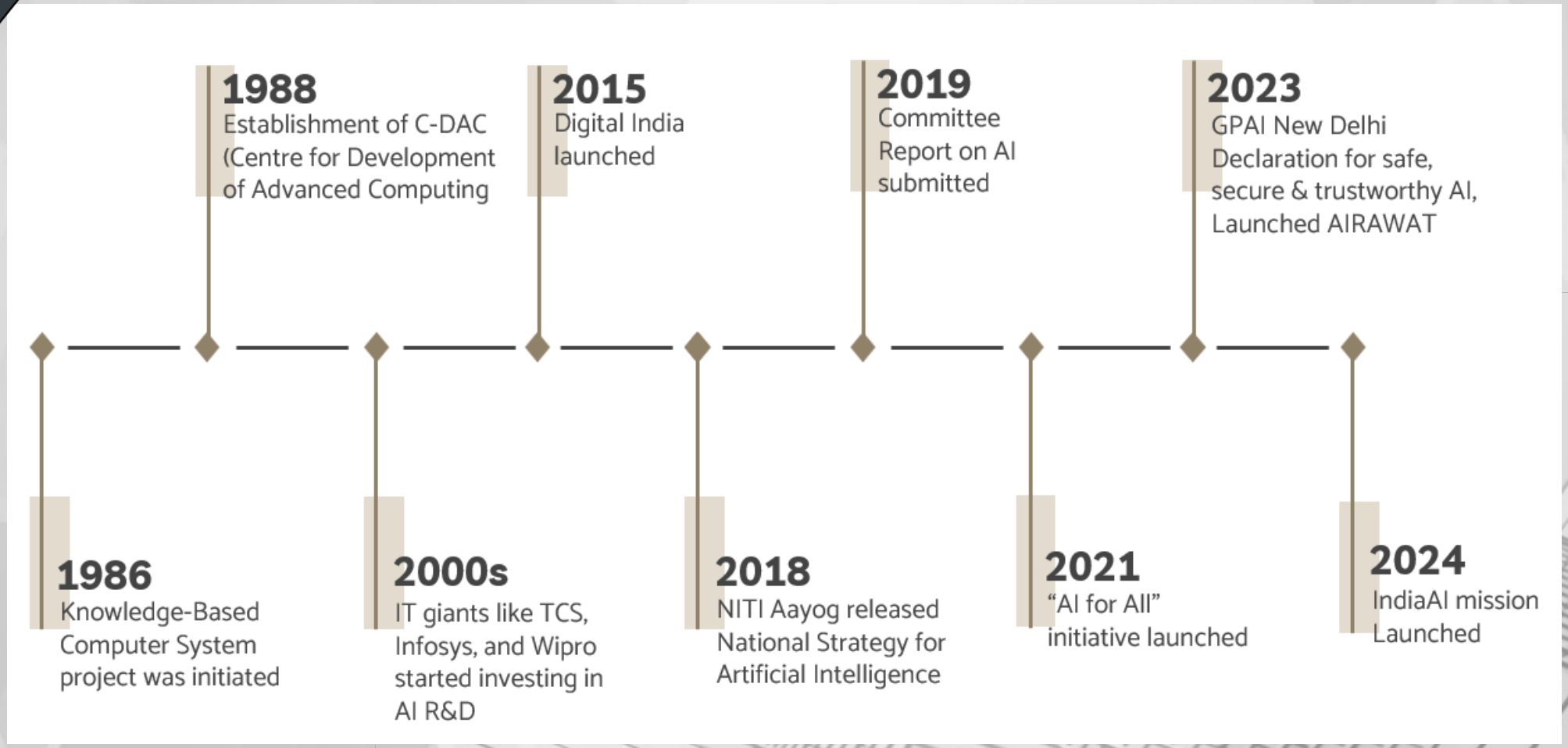
Data sources include peer-reviewed journals, policy briefs, and expert discussions from workshops and conferences to capture evolving AI–work dynamics.

The study also utilizes the 2024 Stack Overflow dataset (India) with 4,087 respondents, developers, data scientists, and students engaged with AI.

An ordered logistic regression model analyses perceptions of AI-related job threats and opportunities based on demographic and professional factors.

The findings reveal how India's tech community perceives AI as both a disruptor and enabler, offering insights into the future of human–machine collaboration.

Timeline of AI's Development in India



Impact of AI on Indian Labour Market

Artificial Intelligence is reshaping global economies, transforming industries, and redefining employment structures.

With 600+ million workers, India's vast and diverse labour market is adapting to the AI-driven transition.

NITI Aayog (2018) projects AI could add $957 billion to India's GDP by 2035, boosting sectors like healthcare, agriculture, and education.

India's AI market is projected to reach USD 7.8 billion by 2025, contributing 60% of AI's GVA from industrial, healthcare, retail, and automotive sectors.

India now hosts 1,500+ AI startups, growing 38.46% between 2019–2024, making it the world's 3rd-largest AI ecosystem.

Impact of AI on Indian Labour Market

Strong digital infrastructure, private investment, and an expanding AI-skilled workforce are fuelling rapid adoption.

With 500,000 AI-skilled workers trained annually, India leads globally in AI skill penetration, though demand still exceeds supply.

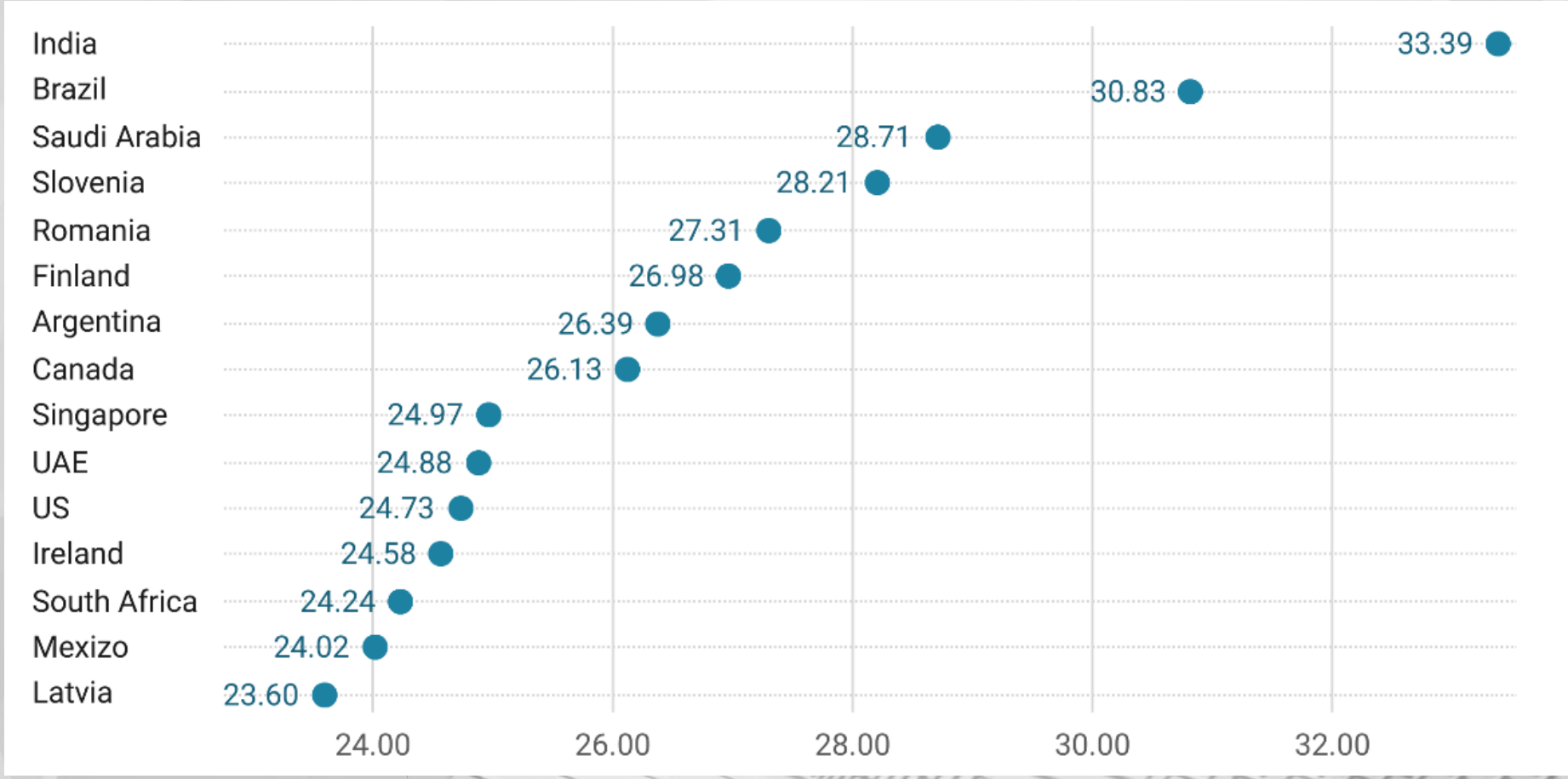
24% of tasks across industries can be automated and 42% optimized, boosting productivity by up to 5.4% by 2030.

IT, banking, and insurance will see the strongest growth in AI-enabled roles like software development, analytics, and customer service.

Multinationals like Google, Microsoft, and Amazon are investing $3.2B+ in Indian AI hubs (Bengaluru & Hyderabad).

Despite rapid growth, India still faces a 53% AI talent shortfall by 2026, underlining the need for reskilling and policy support.

Impact of AI on Indian Labour Market



Relative AI hiring rate y-o-y ratio by geographic area, 2024 (%)

Source: *Artificial Intelligence Index Report 2025, Stanford University*

Impact of AI on Indian Labour Market

Nation	Share Transition from Non-AI to AI Occupation	Nation	Share Transition from AI to AI Occupation
Costa Rica	81.15%	Singapore	51.79%
France	74.44%	Korea	46.53%
India	71.96%	Germany	39.64%
United States	68.50%	Switzerland	37.28%
United Kingdom	65.13%	United Kingdom	34.89%
Switzerland	62.72%	United States	31.26%
Germany	60.30%	India	28.36%
Korea	53.48%	France	25.58%
Singapore	48.20%	Costa Rica	18.85%

Share of Occupational Transition to AI Jobs across the region

Source: *Author's illustration from OECD.AI*

Understanding AI Practitioners' View on AI

low high

Coding Experience	Replace Jobs Without Options for New opportunities	Imitate a Person's Likeness	Circulate Misinformation	Energy demand	Biased Result that do not Represent Viewpoints
Entry Level (0-1)	5	22	49	20	5
Junior Developer (2-3)	96	163	329	141	47
Mid Level Developer (4-6)	269	305	669	274	80
Senior Developer (7-10)	259	274	561	253	74
Lead Developer (10-15)	168	173	346	144	39
Expert (15+)	111	129	269	127	39

Perception of AI as Threat by Data Scientists & Developers

Source: *Analysis by Author from Stack Overflow Survey data*

Modelling Perceived Threat of AI Using Ordered Logit Regression

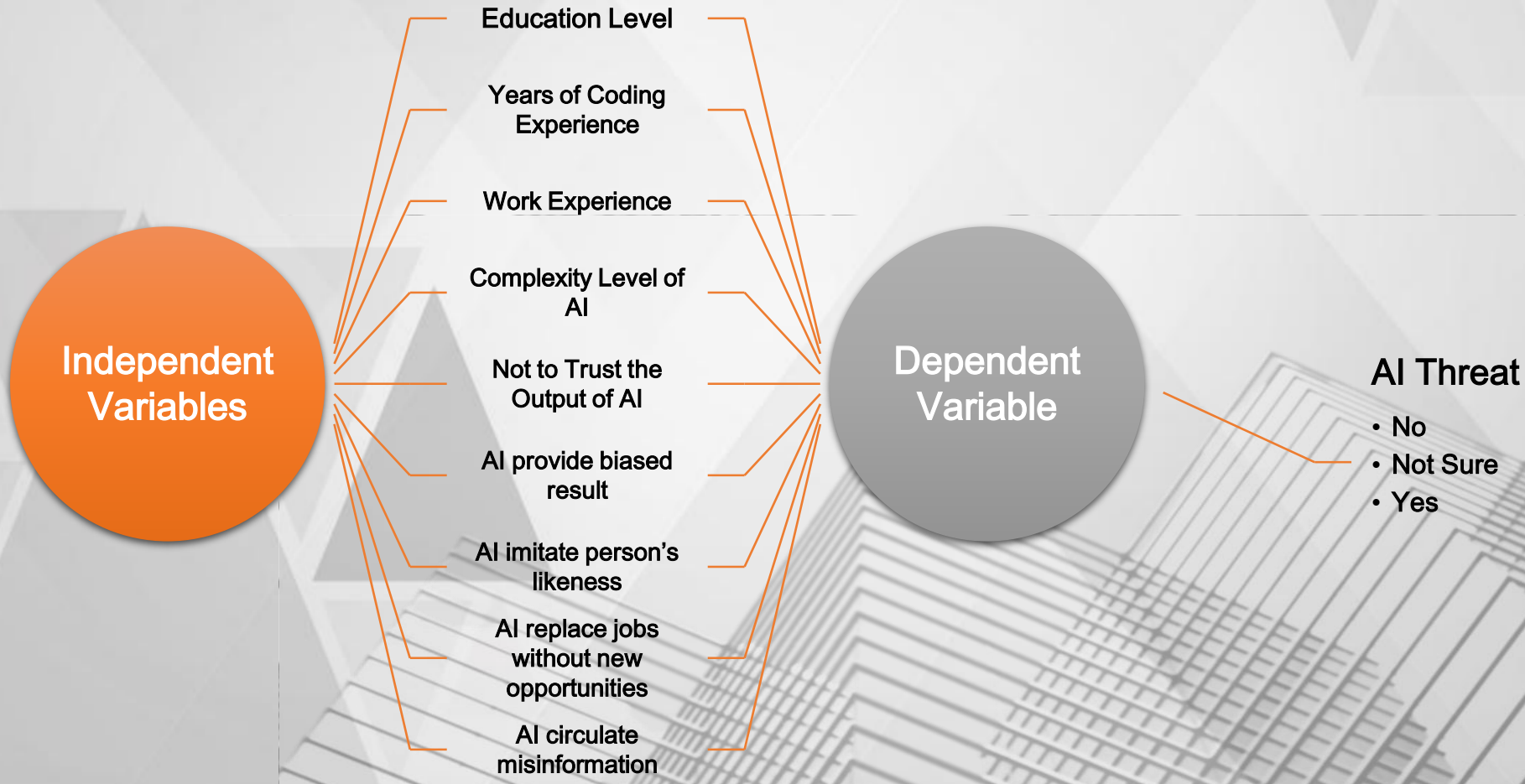
The model helps explain how both personal background & ethical viewpoints influence whether individuals see AI as a potential risk or as a manageable technological change.

In this study, the dependent variable represents how developers perceive AI as a threat, measured through three ordered responses: “No, AI is not a threat,” “Unsure,” & “Yes, AI is a threat.”

Dependent variable naturally captures rising levels of concern toward AI, making o-logit modelthe most suitable choice as it effectively handles such ordinal responses while maintaining statistical efficiency compared to using several binary models.

The analysis draws on Stack Overflow developer data for India to explore how different demographic and ethical factors shape the perception of AI-related threats.

Modelling Perceived Threat of AI Using Ordered Logit Regression



Modelling Perceived Threat of AI Using Ordered Logit Regression

Output of the O-Logit Model

Ordered logistic regression — Number of obs = 4,087
LR chi2(11) = 913.61
Prob > chi2 = 0.0000
Log likelihood = -4586.7372 — Pseudo R2 = 0.0906

ai_threat_cat	Odds ratio	Std. err.	z	P>|z|	[95% conf.	interval]
Age	1.162226	.062687	2.79	0.005	1.045633	1.29182
EdLevel	.9645159	.0223286	-1.56	0.119	.9217307	1.009287
YearsCode	.9500756	.007652	-6.36	0.000	.9351957	.9651922
WorkExp	1.024524	.0080962	3.07	0.002	1.008778	1.040516
AIComplex	1.271752	.0294595	10.38	0.000	1.215304	1.330823
1.Donâttrusttheoutputoransw	1.409082	.0904587	5.34	0.000	1.242487	1.598015
1.Biasedresultsthatdonotrepre	1.291224	.1519517	2.17	0.030	1.025255	1.62619
1.Imitatingapersonslikeness	1.331693	.0976243	3.91	0.000	1.153464	1.537462
1.Replacingjobswithoutoptionsf	3.668943	.2528801	18.86	0.000	3.205327	4.199616
1.Circulatingmisinformationordi	1.590858	.1086904	6.80	0.000	1.391476	1.818809
1.Fulltimeemployed	.9344042	.0696555	-0.91	0.363	.8073868	1.081404
/cut1	-.9416252	.1502351			-1.236081	-.6471698
/cut2	1.887127	.1529031			1.587443	2.186812
/cut3	3.268131	.1575157			2.959406	3.576856

Modelling Perceived Threat of AI Using Ordered Logit Regression

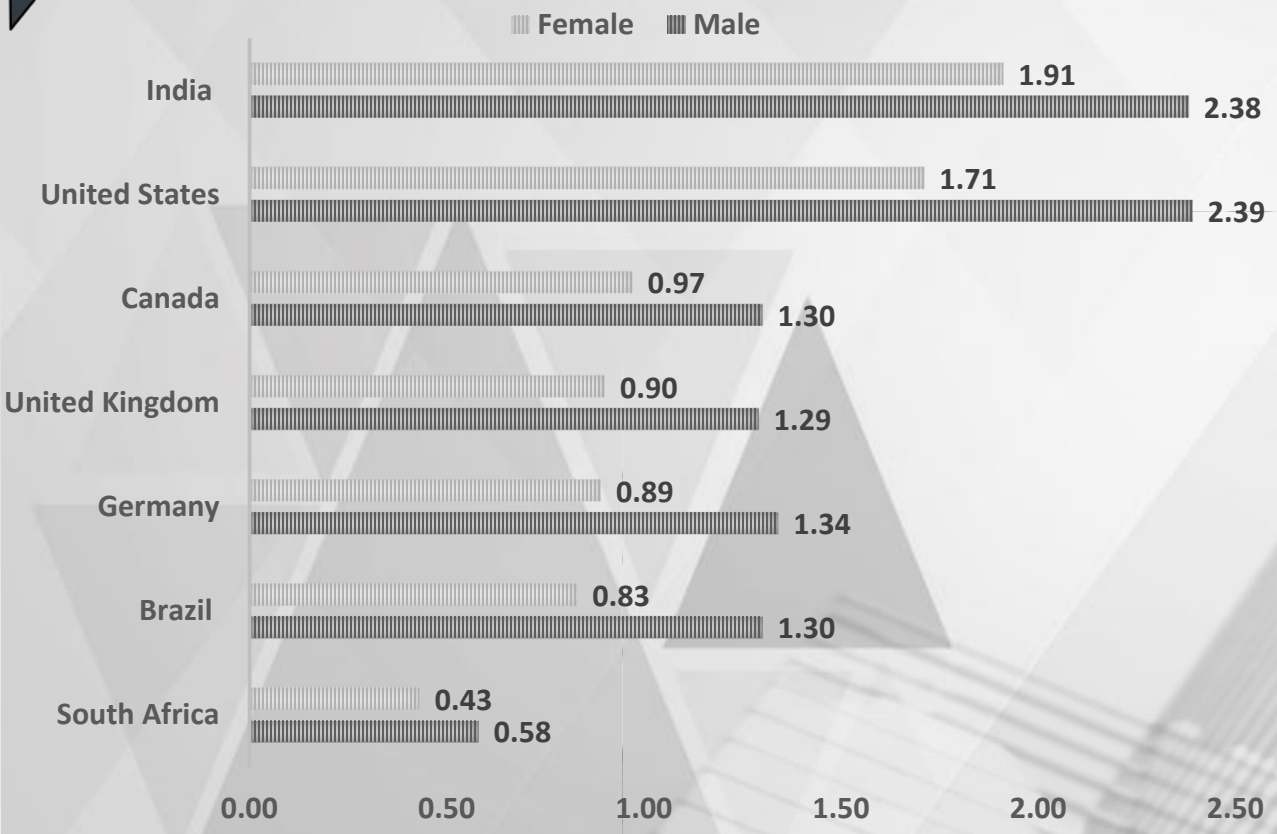
- **Age ↑ → Higher Threat Perception**
  - Older individuals show greater concern, reflecting an *adaptability gap* and *job security anxiety*.
- **Coding Experience ↑ → Lower Threat Perception**
  - Technical familiarity reduces fear of AI, as understanding algorithms builds confidence.
- **Education Level → Not Significant**
  - Formal education alone doesn't ensure deeper AI understanding.
- **AI Complexity Perception ↑ → Higher Threat Perception**
  - Opaqueness of AI systems fuels mistrust—*transparency gap persists.*
- **Mistrust & Bias in AI Outputs ↑ → Higher Threat Perception**
  - Fairness and accuracy strongly shape public confidence in AI.
- **Concern: Job Replacement without Creation → Strongest Effect**
  - Employment insecurity remains the *core driver* of AI anxiety. Example: GenAI & chatbots displacing white-collar roles in ICT & customer service sectors.

AI, Education & Skill Integration

- Labour-market trends indicate rapid task reconfiguration by 2030, prompting employers to plan large-scale reskilling & tighter alignment between education systems & workforce needs *(WEF)*.
- Education bodies are urging curriculum redesigns that emphasizes transferable skills, data literacy, computational thinking, collaboration, and ethics, with clear guidance for teachers on AI-era learning goals *(OECD)*.
- System-level studies reveal AI-literacy gaps among both students and educators, calling for structured professional development and standards to ensure AI supports, not replaces, human judgment in classrooms.
- UNESCO and global skills observatories emphasize equity, transparency, and learner protection in AI deployment, while noting rising demand for AI-related and responsible-AI skills such as ML, NLP, and data engineering.

AI, Education & Skill Integration

Relative AI skill penetration rate by gender from 2021-24



Source- *AI Index Report 2025*

Global AI Workforce & Gender Distribution

- US leads in absolute AI workforce participation, with 2.39% male & 1.71% female representation.
- India closely follows with 2.38% male & 1.91% female, ranking second overall & showing highest female participation among all nations.
- India's performance reflects both a large AI talent pool & notable progress in narrowing the gender gap, surpassing developed economies like US, Canada & UK.
- Countries such as South Africa, Brazil, Germany, & UK exhibit lower overall participation & wider gender gap, stressing on need for stronger inclusion strategies in AI fields.

Current Workforce Structure, Skill Patterns & Future Perspective

Occupational Skill Transition Across Sectors between 2019-24

Major Sector	Sector	Skill Level		
		Low Skill	Medium Skill	High Skill
Agriculture	Crop & animal production	-1.6	23.5	-7.2
	Fishing and aquaculture	97.9	7.1	2.3
	Forestry and logging	176.3	37.5	-0.9
Construction	Civil engineering	12.1	-60.4	70.7
	Construction of buildings	73.4	-15.3	45.7
	Specialized construction activities	-38.6	46.0	-9.3
Electricity, Gas & Water Supply.	Electricity, Gas & AC supply	37.6	27.0	5.6
	other waste management services	-70.1	-100.0	
	Sewerage	-45.0	-58.5	7.1
	Waste collection, treatment & disposal	72.0	86.7	-16.7
	Water collection, treatment & supply	47.9	-2.4	205.7
Mining	Extraction of crude petroleum	0.0	-118.7	-188.0
	Mining of coal and lignite	16.9	-1.3	
	Mining of metal ores	78.0	56.9	85.9
	Mining support service	100.0	13.6	100.0
	Other mining and quarrying	-53.6	-30.0	31.9
Transportation and storage	Air transport	148.1	18.0	-78.0
	Land transport & via pipelines	-10.2	35.2	-77.1
	Postal & courier activities	-36.0		
	Postal and courier activities		38.3	-3.9
	Warehousing activities	42.8	63.3	56.0
	Water transport	-55.0	69.8	-14.4
Wholesale and retail trade	Retail trade, except vehicles	-23.7	65.8	-67.1
	Wholesale trade, except vehicles	124.6	55.2	9.9
	Wholesale, retail trade & vehicles repair	144.3	74.7	-23.7

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Occupational Skill Transition Across Sectors between 2019-24

Major Sector	Sector	Skill Level		
		Low Skill	Medium Skill	High Skill
Manufacturing	Manufacture of apparel	2.9	65.9	-75.2
	Manufacture of basic metals	85.5	-14.9	33.7
	Manufacture of beverages	14.2	0.5	11.2
	Manufacture of chemicals products	28.2	-14.3	56.7
	Manufacture of coke & refined petroleum	308.6	36.7	18.9
	Manufacture of computer, products	84.1	6.1	-44.3
	Manufacture of electrical equipment	130.3	-13.0	17.9
	Manufacture of fabricated metal	59.8	55.2	-25.4
	Manufacture of food products	41.6	60.3	-21.0
	Manufacture of furniture	42.0	53.5	-71.8
	Manufacture of leather products	-10.8	66.6	-24.6
	Manufacture of machinery	47.3	12.8	-2.3
	Manufacture of motor vehicles	16.7	67.9	49.5
	Manufacture of other non-metallic mineral	47.4	2.3	-5.3
	Manufacture of paper products	183.3	34.4	14.2
	Manufacture of pharmaceuticals	109.1	49.9	26.6
	Manufacture of rubber & plastics	37.5	-14.2	61.1
	Manufacture of textiles	4.1	36.7	-57.1
	Manufacture of tobacco products	-13.2	48.7	-87.8
	Manufacture of transport equipment	139.7	31.8	52.8
	Manufacture of wood products	24.1	1.8	-68.9
	Other manufacturing	13.6	57.5	-25.6
	Printing & reproduction of recorded media	63.8	3.5	7.3
	Repair & installation of machinery	-58.5	18.5	-59.6

Current Workforce Structure, Skill Patterns & Future Perspective

Occupational Skill Transition Across Sectors between 2019-24

Major Sector	Sector	Skill Level Low Skill	Medium Skill	High Skill
Accommodation & Food service activities	Accommodation	90.8	49.8	14.3
	Food and beverage service	109.6	84.7	-37.9
Financial & insurance activities	Financial service	-47.2	42.3	17.0
	Insurance, pension, except social security		-20.2	-36.3
	Other Financial Activities		-22.4	38.2
Information & communication	Computer programming, consultancy	-12.3	130.2	120.1
	Information service activities		54.9	31.0
	Picture, video, sound recording & music publishing		-14.9	19.6
	Programming & broadcasting activities		155.0	9.6
	Publishing activities	28.3	-45.2	8.1
	Telecommunications	-11.3	-17.7	-22.1
Professional, scientific & technical activities	Activities of head offices; management consultancy		110.3	-16.4
	Advertising & market research		-52.0	52.2
	Architectural & engineering activities		-19.3	21.3
	Legal & accounting activities	-100.0	-35.2	24.9
	Other professional, scientific & technical activities		30.1	16.7
	Scientific research & development		-54.7	-20.2
	Veterinary activities		34.0	128.8
Real estate activities	Real estate activities	-100.0	-53.7	75.8

Current Workforce Structure, Skill Patterns & Future Perspective

Occupational Skill Transition Across Sectors between 2019-24

Major Sector	Sector	Skill Level Low Skill	Medium Skill	High Skill
Administrative & support service activities	Employment activities	275.3	220.7	69.7
	Office administrative, office & business support	30.2	23.6	-34.3
	Rental and leasing activities	157.3	-27.3	20.4
	Security & investigation activities	-97.3	120.7	-41.5
	Services to buildings and landscape	108.4	-62.7	-7.3
	Travel agency,reservation service		25.4	-25.9
Education & Health	Education	2.0	37.0	1.6
	Human health	44.2	89.8	40.2
	Residential care	-83.7	-38.6	-61.4
	Social work	44.6	-14.0	41.4
Arts, entertainment & recreation	Creative, arts & entertainment activities	-77.2	-54.2	-2.1
	Gambling & betting activities		110.8	-62.9
	Libraries, archives, museums & other cultural activities		-68.3	112.6
	Sports, amusement & recreation activities	100.0	221.8	8.2
Public Administr..	Public administration & defence; compulsory social security	44.9	24.6	2.2
Other Services	Activities of extraterritorial organizations and bodies	40.8	21.3	64.3
	Activities of households as employers	95.3	14.8	15.0
	Other personal service activities	9.6	17.8	-62.7
	Repair of computers and personal and household goods	47.0	43.5	-79.5

Impact of AI Across Sectors

AI-Enabled Transformation in Agriculture Sector:

Adoption of AI, robotics, & IoT-based smart farming is driving demand for AI-proficient, high-skilled workers in precision agriculture

Beyond mechanized farming, AI is enabling supply chain optimization, precision agro-tech, and the creation of new employment opportunities across sector.

Despite large informal workforce, India is leveraging AI through the IndiaAI Mission and initiatives by Ministry of Agriculture and private entities to improve efficiency, cost reduction, & sustainability.

Kisan e-Mitra: Multilingual AI chatbot assisting farmers with queries on government schemes.

National Pest Surveillance System: Uses AI/ML to detect pest infestations; supports 61 crops & 400+ pests with 1 lakh images uploaded.

AI in Crop Monitoring:

Tools like CropLens & Farmonaut use AI & satellite data for crop health monitoring, disease alerts, & real-time insights, promoting data-driven & sustainable farm.

Collaborative Innovations: Agricultural Development Trust & Microsoft in Maharashtra use AI to address soil degradation, weather tracking, & market linkages, enhancing farm productivity & resilience.

Impact of AI Across Sectors

AI and Rise of Gig Economy in India

Platforms use AI for placing order, work allotment, review ratings, skill alignment, enabling freelancers to access better-paying jobs (WEF, 2023).

AI-driven platforms like Swiggy, Zomato, Ola, and Uber have transformed gig work by improving demand-supply matching, reducing idle time, & increasing earnings through dynamic pricing and route optimization (NITI Aayog, 2023).

AI-based management systems increase worker monitoring, loss of autonomy, and opaque rating or deactivation systems, leading to income instability (Oxfam India, 2024)

India's gig workforce reached 12 million (2% of total labour force) and is projected to expand by 61 million jobs by 2047, with AI optimizing workflows and boosting productivity (LiveMint, 2025).

Gains are unevenly distributed, favouring skilled workers, while delivery & ride-hailing drivers face wage suppression & algorithmic discrimination.

Several state laws mandate regulations for gig & platform work to ensure algorithmic transparency, promote skill development among workers, & provide social & economic protections.

Impact of AI Across Sectors

AI Reshaping India's Manufacturing Landscape

- AI expected to add $15.7 trillion to global GDP by 2030; could boost India's GDP by $1 trillion by 2035 (PwC & Accenture)
- India's vast SME network leveraging AI for automation, data-driven decisions & efficiency gains.
- Convergence of AI, IoT, RFID, Blockchain enabling smart & transparent manufacturing ecosystems.
- AI-driven machine vision & analytics revolutionizing quality control, driving the sector toward $300bn valuation by 2026 (ICEA & MeitY).
- Chemicals & pharma industries using AI for process optimization, molecular analysis & compliance automation (NASSCOM, 2023).
- AI and CAD/CAM enhancing fabric design, cutting, stitching & quality inspection, boosting precision and reducing waste.
- Industrial robotics market to hit $264M by 2028; startups like Sastra Robotics & Qualitas Tech driving automation and smart production.

Impact of AI Across Sectors

Enhancing Banking Services through AI

AI & Generative AI (GenAI) are transforming product quality, customer experience, and operational efficiency, redefining traditional banking processes.

Boosts productivity, lowers entry barriers for investors, and improves analysis of complex, unstructured data.

AI has made data the most valuable resource for financial institutions, enabling smarter, cost-effective decision-making beyond traditional metrics like asset size.

Three Dimensions of AI Impact:

- Automating repetitive tasks & accelerating operations.
- Enhancing data analytics & market liquidity through machine learning.
- Moving toward AI-driven trading systems, though full autonomy remains limited due to transparency concerns.

HDFC Bank uses AI-based automation for loan processing and onboarding, reducing processing time by over 50%.

ICICI employs AI to detect fraudulent transactions and operates the iPal virtual assistant, handling 6M+ customer queries annually.

Axis Bank applies AI to assess creditworthiness using transaction and spending data.

Kotak Mahindra Bank introduced “Keya,” an AI chatbot for account management, fund transfers, and personalized product recommendations, improving customer engagement.

Impact of AI Across Sectors

AI-Driven Innovations in Logistics Sector

India's logistics sector (worth US$ 215 billion, employing 22mn people & contributing 13% of GDP) is being transformed by AI-driven speed, transparency, & reliability.

Sector is projected to grow at CAGR of 10.7% by 2026 (PIB, 2025) driven by expanding e-commerce, manufacturing & global trade.

AI-powered robotics automate picking, sorting & layout optimization, enhancing productivity & cost efficiency.

AI facilitates real-time tracking, workforce optimization & last-mile delivery precision, creating data-driven, adaptive logistics ecosystem.

Initiatives like PM GatiShakti's ULIP, National Logistics Plan, GST reforms, & digitalization have strengthened supply chain efficiency & transparency.

AI enables demand forecasting & order volume prediction, helping firms optimize inventory levels & prevent disruptions.

Integrating AI with IoT improves forecasting accuracy, reduces operational errors, & accelerates processing & packaging.

Impact of AI Across Sectors

AI revolutionizing MSME through E-commerce

MSMEs contribute 30 per cent to India's GDP & employ over 230 mn people, now empowered by AI-driven e-commerce.

AI transforming e-commerce into a scalable growth driver for small businesses.

ML & GenAI powering product tagging, personalized recommendations & demand forecasting, boosting sales & efficiency.

Rapidly growing AI market and talent pool enabling affordable, plug-and-play solutions for MSMEs.

Local firms using chatbots, auto-listing tools, and predictive analytics to reduce overstocks and lost sales.

AI enhancing route optimization & fulfilment — lowering delivery costs and improving customer satisfaction.

Barriers include low digital literacy, fragmented data, limited capital, and trust gaps in automation.

Call for AI-inclusive policies that includes skill programs, credit incentives, AI sandboxes & public-private accelerators to democratize access.

Impact of AI Across Sectors

AI Transforming the Future of Cities & Infrastructure

India leveraging AI to tackle pollution, congestion & resource scarcity, driving smarter & more sustainable cities.

Government's flagship initiative using AI to enhance living standards, urban planning & economic growth.

Cities like Chennai use AI sensors for real-time leak detection, quality monitoring, & floodgate automation.

Bengaluru's BATCS, Pune's ITMS, and Chandigarh's AI-based violation tracking optimize traffic flow & reduce delays.

Indore employs AI for waste segregation & recycling, while Delhi uses AI-driven energy forecasting for efficient power use.

AI aiding in transport, housing, and infrastructure planning, ensuring sustainable city development.

States like Maharashtra & Karnataka partnering with Microsoft and research parks to integrate AI in administration & citizen services.

Initiatives like Lucknow AI City Project aim to create tech hubs fostering innovation, IT growth & smart governance.

Impact of AI Across Sectors

Artificial Intelligence in Education

Two-Way Synergy:

AI is transforming education, while education is shaping AI innovation through skilled human capital.

•AI-Driven Learning:

•Personalized tutoring, smart assessments, and data-driven pedagogy enhance accessibility and inclusivity.

•NEP 2020:

•Integrates AI, coding, and computational thinking in school curricula to build a future-ready workforce for Viksit Bharat 2047.

•AICTE-approved institutions offering dedicated courses in AI & Data Science across IITs, IIITs, and universities.

•Public–Private Collab:

•Centres of Excellence in AI established through industry–academia partnerships to boost research and innovation.

•Digital Learning Platforms:

•SWAYAM, NPTEL, IITs & IIMs online courses democratizing access to AI, ML, and data analytics education nationwide.

•AI-powered platforms like BYJU'S, Vedantu, Unacademy personalize lessons, track progress, and offer instant problem-solving.

AI Learning Companions:

Child-friendly AI robots that understand emotions, assist in learning, and make education engaging and interactive.

•Smart Classrooms:

•Schools and colleges using AI to monitor engagement, automate grading, and streamline administration.

•Innovation Ecosystem:

•Smart India Hackathon and Govt–EdTech collaborations driving large-scale AI adoption in India's education system.

India’s Strategic Vision for AI – Government Initiatives

- Government envisions a self-reliant AI ecosystem reflecting India’s languages, culture, and values to achieve the Vision of Viksit Bharat 2047.
- #AIforAll Strategy defines AI as a transformative force for growth in healthcare, agriculture, education, mobility, and smart cities.
- Focus on overcoming data gaps, high adoption costs, privacy concerns & limited R&D capacity through collaboration & innovation.
- Centres of Research Excellence drive deep AI research, developing new architectures, knowledge, & platforms.
- Through public–private partnerships, reskilling initiatives, and ethical frameworks, India aims to lead the global AI revolution responsibly.
- Earlier in late 2020s, The Ministry of Electronics & IT (MeitY) established a Task Force on Artificial Intelligence to assess AI’s impact across nine key sectors including education, healthcare, agriculture, and smart cities.
- Based on its findings, 4 specialized committees were formed to create a comprehensive AI policy framework & ecosystem for India.

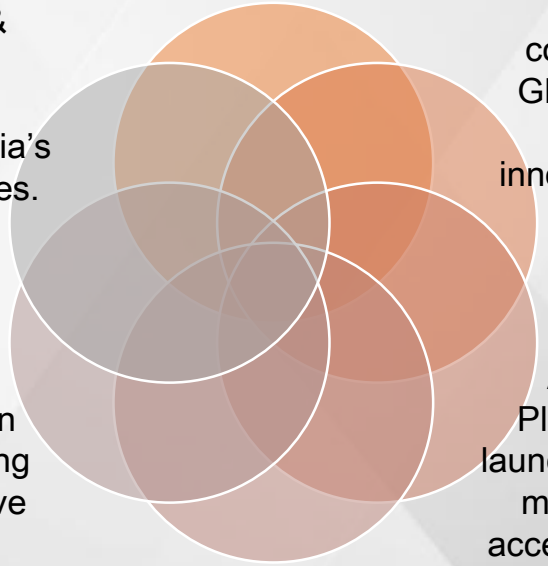
India's Strategic Vision for AI Government Initiatives

IndiaAI Mission –
Empowering India's AI Future

Launched in 2024 with an outlay of ₹10,300 crore (5 years), the IndiaAI Mission aims to build a robust, inclusive ethical AI ecosystem.

Emphasizes Responsible & Sovereign AI, ensuring technologies are ethical, transparent & aligned with India's cultural and economic priorities.

Focuses on expanding computing power with 18,693 GPUs & promoting indigenous AI capabilities through innovation & talent development.



Encourages public–private partnerships, AI education in Tier-2 & Tier-3 cities & funding for deep-tech startups to drive nationwide AI growth.

AIKosha (IndiaAI Datasets Platform) & AI Compute Portal launched to provide open datasets, models, & high-powered GPU access for researchers & startups.

Mission built on seven pillars, Compute Capacity, Innovation Centre, Datasets Platform, Application Development, FutureSkills, Startup Financing and Safe & Trusted AI.

Leveraging Public–Private Partnerships for AI Advancement

- India is emerging as a global hub for AI R&D, with academia–industry partnerships accelerating innovation, investment, and real-world applications.
- Leading institutions and global tech companies are co-developing AI solutions, creating cutting-edge research centres and infrastructure across India.
- These partnerships are strengthening India's AI ecosystem, fostering innovation, talent, and IP creation driving India toward global AI leadership.

IIT Madras – CeRAI:
In partnership with Google (USD 1M), CeRAI promotes ethical, explainable, and responsible AI, focusing on fairness, privacy, and policy innovation.

IIT Jodhpur with Meta:
Dedicated to Generative AI research, advancing models that create new text, images, and videos for industries like media and design.

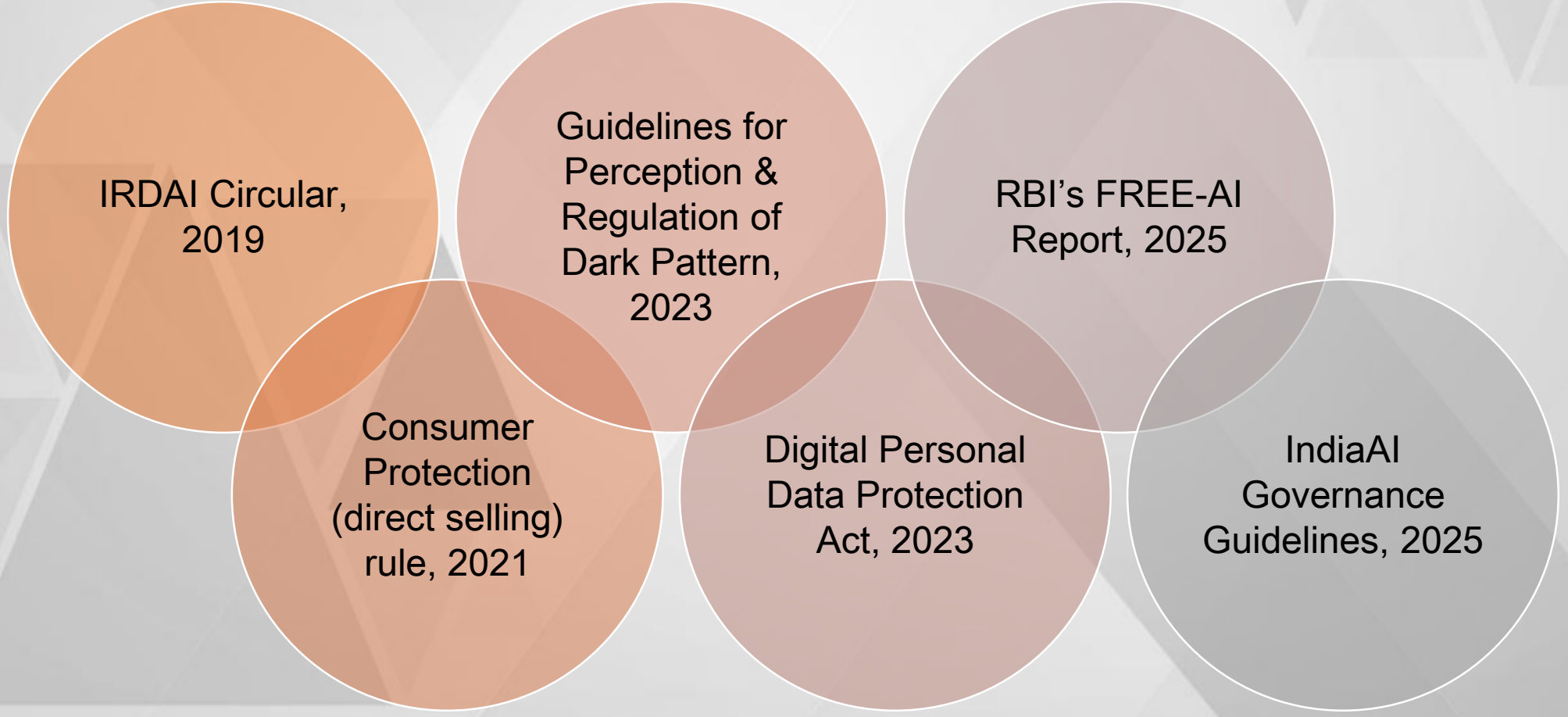
IIIT Hyderabad – Intel AI Research Centre:
Focused on healthcare & smart mobility, leveraging population-scale datasets and high-performance computing to address national challenges.

IIIT Delhi – Infosys CoE:
Advancing federated learning, cancer research (CANCOG), autonomous mobility, and AI for space through integrated education and research.

IIT Hyderabad – Global Collaborations:
Partnering with Honeywell, NVIDIA & JICA, equipped with DGX-1 (1 PetaFLOPS) and DGX-2 (2 PetaFLOPS) systems for advanced model training.

Dealing with Ethical Challenges

Evolution of Few Guidelines with AI and Dark Patterns



Policy Imperatives for Human-Centred AI and Employment

- India faces twin task of boosting productivity & innovation while safeguarding livelihoods and equity in an AI-driven economy.
- GenAI is already reshaping labour demand across South Asia, creating urgency for reskilling and inclusive workforce strategies.
- The National Strategy for AI (#AIforAll) emphasizes sectoral adoption, data governance, and ethical safeguards, anchoring labour-sensitive AI design.
- MeitY's updated IT Rules integrate bias mitigation, content integrity, and transparency, ensuring labour outcomes remain central to AI oversight.
- India is expanding AI-aligned training programs, though scale, quality, and industry linkages remain ongoing priorities.
- IIT Madras proposes a Unified Worker Interface (UWI) or "UPI for Work" for portable worker identity, verified earnings, and data ownership.
- Data Gigs Ecosystem recommends digital micro-tasking platforms to boost income opportunities, especially for women and remote workers.

Policy Imperatives for Human-Centred AI and Employment

- Algorithmic Transparency calls for a repository of algorithmic dark patterns and enforces Right to Explanation and Human Review in AI-led decisions.
- Automation is reducing demand in traditional sectors but creating new medium-skilled jobs in manufacturing, logistics, and services.
- Policies must enable workers to adapt AI as an augmentation tool, not a displacement force.
- In the AI era, skills define jobs — not vice versa — emphasizing adaptability, creativity, and digital fluency.
- India's skill strategy must evolve into a continuous learning system, promoting critical thinking and problem-solving.
- Governments and firms should introduce financial nudges, subsidies, and recognition rewards to encourage worker upskilling.
- India must enforce transparent, responsible AI training, prevent copyright misuse, and promote human oversight and fair data use.
- Integrating AI with core engineering & vocational education (data centres, green tech, energy systems) will ensure a resilient, future-proof labour force.

THANK YOU