AI AND INDIAN PARLIAMENT

Mapping Legislative
Engagement Since 2014-2025

Future Shift Labs

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Foreword

The launch of AI and Indian Parliament: Mapping Legislative Engagement Since 2014 marks a critical step in charting the legislative consciousness around artificial intelligence in the world's largest democracy. As India undergoes a profound technological transformation, Parliament emerges not only as a policymaking body but as a moral compass capable of shaping AI's trajectory to serve the values of inclusion, justice, and democratic oversight.

This Forum stands as a beacon for collaboration and foresight. By analyzing 391 AI-related parliamentary questions and 73 debate interventions across both Houses, it provides a data-rich reflection of how India's elected representatives are engaging with the technological future.

Our shared mission is clear: to develop frameworks that enable innovation while upholding ethics, equity, and environmental accountability. The growing discourse on AI within Parliament though currently uneven in geography, depth, and thematic range signals the beginning of a more informed and inclusive legislative journey.

Each voice in Parliament contributes to this collective effort. As we face complex challenges from algorithmic bias and digital sovereignty to environmental costs and agentic AI, we must embrace not only technological ambition but also institutional responsibility. Let this Forum serve as a clarion call for deeper, more anticipatory, and more human-centered AI governance.

Mr. Nitin Narang
Founder, Future Shift Labs

Message from the Director

At Future Shift Labs, we believe that the future of AI will not be written by machines, but by the intent, ethics, and actions of those who govern them. With the release of AI and Indian Parliament, we place in the hands of lawmakers, citizens, and researchers a powerful map of where India stands and where it must go.

This study reveals much to celebrate: a steady rise in AI engagement since 2018, bipartisan contributions across over 20 political parties, and thematic breadth covering health, education, governance, and ethics. And yet, it also reveals what remains absent: consistent attention to rural inclusion, environmental impact, international AI norms, and advanced technologies like agentic or quantum AI.

Our vision for the Artificial Intelligence Legislative Forum to not only document India's AI journey, but to inspire its next steps. We must champion transparent institutions, build capacity among parliamentarians, and mainstream AI governance into every domain of public policy.

We invite you not just as a reflection of past efforts, but as a blueprint for future action. Together, let us shape a future where AI does not deepen divides but bridges them where it reflects not only technological excellence, but the democratic soul of India.

Mr. Sagar Vishnoi
Director, Future Shift Labs

Meet the Author

Mr. Pranjal Dwivedi
Advisor, FSL

Pranjal Dwivedi is an AI and public policy expert dedicated to advancing inclusive, accessible, and accountable artificial intelligence. His work spans AI policy, governance, cybersecurity, and the promotion of ethical AI development.

He is the Co-founder of **Inclusive AI** and has led deepfake detection workshops in rural districts like Shravasti to equip law enforcement with practical AI literacy.

He also developed the Deepfake Detection Toolkit and the Yashoda AI Toolkit to enhance ethical awareness and digital readiness among policymakers and marginalized communities.

Through research and advocacy, he contributes to responsible technology policy and a more informed public discourse on emerging AI challenges.

His research focuses on AI misinformation, regulatory frameworks, digital rights and the intersection of emerging technologies and social fabric through articles, toolkits and research reports.

Content

I. Executive Summary

This report presents a comprehensive, data-driven analysis of Indian Parliamentarians' engagement with **Artificial Intelligence (AI)** from **2014 to April 2025**, tracing how legislative oversight has evolved as **AI** becomes central to India's governance, economy, and society. As the country's digital transformation accelerates, Parliament's role in shaping, scrutinizing, and guiding **AI's** societal impact has grown increasingly urgent.

Drawing on extensive records from the **Lok Sabha and Rajya Sabha,** the study maps **391 AI-related questions (167 in the Lok Sabha** and **224 in the Rajya Sabha)** and **73 debate interventions (10 in the Lok Sabha and 63 in the Rajya Sabha).** These engagements span key themes such as policy, ethics, employment, education, healthcare, and public regulation. Notably, parliamentary attention to AI has risen sharply since **2018**, with the period from **2023** to **2025** witnessing the most significant surge, largely driven by national **AI** strategy announcements and emerging policy challenges. Recent discussions have begun to incorporate risks such as deepfakes and the broader challenges of AI governance.

However, political and geographic participation in AI discourse remains uneven. **The Bharatiya Janata Party (BJP)** accounts for the highest number of interventions, followed by the **Indian National Congress (INC)**, **DMK, YSRCP, and TDP**.

Maharashtra, Tamil Nadu, Andhra Pradesh, and Uttar Pradesh are among the most active states, while several others remain underrepresented. This concentration suggests that awareness and leadership on AI policy are limited to a handful of regions and political actors.

A theme-wise breakdown reveals that **"Usage of AI" and "Policy & Planning"** dominate discussions in both Houses, followed by key concerns like ethics, education, healthcare, and regulation. In the **Lok Sabha**, there is notable focus on **governance, health, deepfakes, and skill development**, while the **Rajya Sabha** has shown deeper attention to **education, employment, and R&D**. Although sectors like defense, agriculture, and digital arrests are less frequently addressed, their presence signals an emerging awareness of AI's cross-sectoral impact.

Despite increasing interest, the report identifies several persistent gaps in parliamentary engagement. Environmental concerns such as water usage and the carbon footprint of AI infrastructure are virtually absent. Discussions rarely touch upon global standards and frameworks, including alignment with OECD and UNESCO guidelines.

Advanced topics like agentic AI, quantum AI integration, data and chip sovereignty, and domestic capability-building received minimal attention. Socioeconomic and regional inclusion is inconsistently addressed, with limited focus on rural, Tier 2/3 cities, and marginalized community impacts. Additionally, deeper ethical and governance-related themes such as algorithmic bias, surveillance, fairness, accountability, and long-term regulatory preparedness are explored only sporadically.

Many interventions reflect rising curiosity but fall short of sustained, anticipatory, and systemic legislative inquiry. To address these challenges, the report recommends broadening the scope of parliamentary inquiry to include neglected areas such as environmental impact, rural and marginalized communities, and advanced AI technologies. It also calls for institutional reforms, including the creation of a dedicated Parliamentary Forum or committee on AI, mandated ethical and environmental impact assessments in public AI initiatives, and stronger cross-sectoral policy coordination. Building capacity through MP fellowships, research support, and constituency-level awareness programs, especially in underrepresented regions, is also essential.

Ultimately, the report urges stronger, ongoing democratic oversight of India's AI transformation so that parliamentary engagement evolves from episodic interventions to a proactive, inclusive, and accountable policy framework.

II. Introduction

India, the world's largest democracy, derives its strength from the vibrancy of its institutions and the active participation of its people in governance through elected representatives. In this structure, Parliament serves as both a guardian of constitutional values and a mediator between the state and society. As the supreme representative body in a parliamentary democracy, the Indian Parliament is entrusted with the fundamental responsibilities of law-making, executive oversight, and articulating the diverse aspirations of its citizens.

It is not merely a forum for debate, but a constitutional institution that shapes the nation's direction through informed discussion, scrutiny, and accountability. As society evolves under the impact of global and technological transformations, the institution of Parliament must evolve in tandem, expanding its understanding and frameworks to deal with the complexities of the future.

Over the past few years, we have witnessed profound technological transformation in the world. **Artificial Intelligence (AI)**, once confined to academic labs and niche industry applications, has now become a feature of contemporary governance, economy, and society. Its applications range from health, education, agriculture, and governance.

AI Generated Image

According to the Reserve Bank of India (RBI), generative Artificial Intelligence (AI) could add between USD 359 billion and USD 438 billion to India's GDP by 2029–30, underscoring its role as a critical driver in realizing India's 2047 Vision of becoming a developed, innovation-led economy.

While the transformative potential of AI is immense, so are its risks, ranging from algorithmic bias and loss of privacy to job displacement and ethical dilemmas.

The deployment of AI systems in public domains such as healthcare, education, defense, law enforcement, and welfare raises urgent questions of transparency, fairness, accountability, and democratic oversight

Why AI in Parliament Matters ?

Given the far-reaching implications of AI, legislative institutions must be at the forefront to shape the trajectory of its adoption and regulation. Parliament, as the central deliberative body, must play a proactive role in examining the ethical, social, and economic implications of AI. It must anticipate emerging harms, ensure the safeguarding of rights, and advocate for inclusive innovation that aligns with India's constitutional values.

In the Indian context, there has been relatively limited structured engagement around AI within Parliament. Despite the increasing integration of AI into policy and governance, there remains a gap in legislative awareness, discourse, and oversight. This disconnect can have long-term implications, especially if AI systems continue to be deployed without adequate scrutiny from elected representatives who speak on behalf of the people.

This report seeks to bridge this gap by systematically mapping and analyzing how Indian Members of Parliament have engaged with AI over the past decade (2014 onwards). Through a comprehensive review of parliamentary debates, questions, and interventions, it aims to assess not only the frequency of engagement but also the depth, tone, and thematic focus of legislative attention to AI. In doing so, it contributes to the larger conversation about how democracies can and must govern emerging technologies through informed, participatory, and anticipatory frameworks.

III. Objectives of the Study

This study aims to fill a critical gap by investigating how Indian Parliamentarians have engaged with AI-related issues through formal legislative mechanisms. The key objectives of this report are as follows:

To map parliamentary references to Artificial Intelligence through Question Hour, Zero Hour, and general debates in both the Lok Sabha and Rajya Sabha since 2014, thereby establishing a baseline of legislative interest and awareness.

To analyze party-wise and region-wise trends in AI engagement, identifying which parties and geographies are leading or lagging in responding to the developments around AI.

To classify the thematic concerns raised by Parliamentarians regarding AI—such as employment, skilling, agriculture, education, ethics, automation, deep fakes, and public service delivery through systematic analysis.

To provide actionable insights and recommendations to strengthen parliamentary engagement with AI, including a set of suggested questions, a policy brief, and identification of gaps or overlooked sectors in current legislative discourse.

1. Contribution to Current Policy Discourse

This study contributes to India's evolving digital policy architecture in the following ways:

Empirical Evidence Base : It provides the first structured, data-driven analysis of AI-related discourse within Indian Parliament, thereby filling a major evidence gap for policymakers, scholars, and civil society actors.

Legislative Capacity Building : By identifying MPs and regions that have actively engaged with AI, the study can inform targeted training and orientation programmed for legislators to enhance their capacity on emerging technologies.

Participatory AI Governance : The report advocates for a model of AI governance that is anticipatory, inclusive, and grounded in democratic institutions, aligning with global calls for ethical and rights-based AI development.

Policy Synchronization : The insights generated here can serve as a reference for synchronizing parliamentary debates with executive action and regulatory developments, ensuring that innovation is matched with institutional oversight.

IV. Methodology

1. Data Sources.

This study draws upon publicly accessible data from the official archives of the **Lok Sabha** and **Rajya Sabha** between the years **2014 and 2025**. Parliamentary records were accessed through their respective websites and include :

- Starred and unstarred questions
- Statements during Zero Hour and Special Mentions
- Transcripts of debates, including Budget, General and Private Members' Business

2. Keyword Framework

To ensure comprehensive coverage, the study employed a targeted keyword search strategy using terms such as:

- "Artificial Intelligence"
- "AI"
- "Machine Learning"
- "Automation"
- "Deepfake"

- "AI Ethics"
- "Digital Arrest"
- "Autonomous Systems"
- "Algorithmic Bias"
- "Chatbot / Generative AI"

The search was conducted across official portals using both keyword filters and manual verification to ensure semantic relevance.
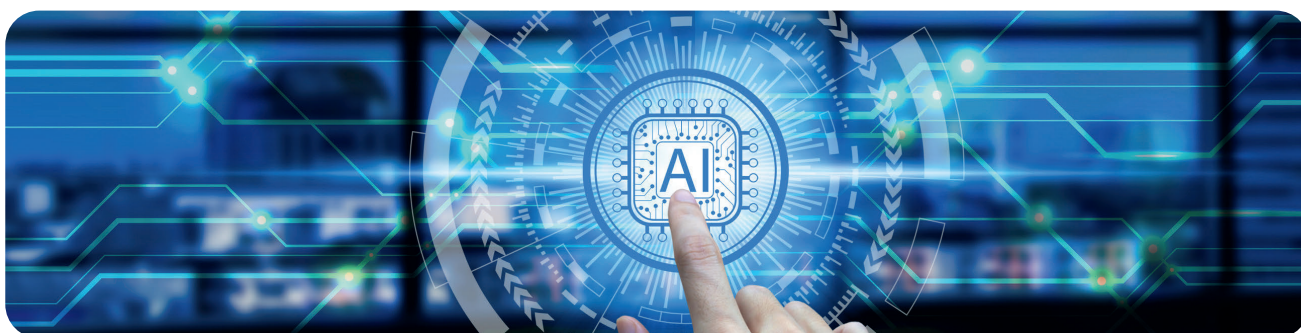
AI Generated Image

3. Analysis Approach

The analysis was conducted in three interrelated phases:

- **Frequency Analysis:** A quantitative assessment of how often AI-related references occurred each year, broken down by House, party, state, and MP.

- **Thematic Categorization:** A qualitative classification of the nature of concerns raised, such as governance, employment, education, surveillance, misinformation, security, and rights.

- **Narrative & Trend Mapping:** Tracing the evolution of the tone and framing of AI-related discussions ranging from optimism and innovation to caution and risk over the past decade. Visual tools such as heat maps, trend graphs, and topic clusters were used to present findings.

4. Limitations

While comprehensive in scope, the study has certain limitations:

- **Terminological Variance:** Some AI-related discussions may have occurred without explicit mention of keywords like "AI" or "machine learning," leading to potential under-reporting.

- **Limitation in Keyword Search:** The use of keyword-based search and content filters to identify AI-related questions may lead to ambiguity due to limitations in the specificity and clarity of search criteria.

- **Language Constraints:** The study focuses primarily on English-language records. Regional language interventions may have been excluded if not transcribed or translated.

- **Contextual Ambiguity:** In a few instances, mentions of "AI" were contextually unrelated to Artificial Intelligence (e.g., abbreviations for other terms like Air India), and these were manually filtered.
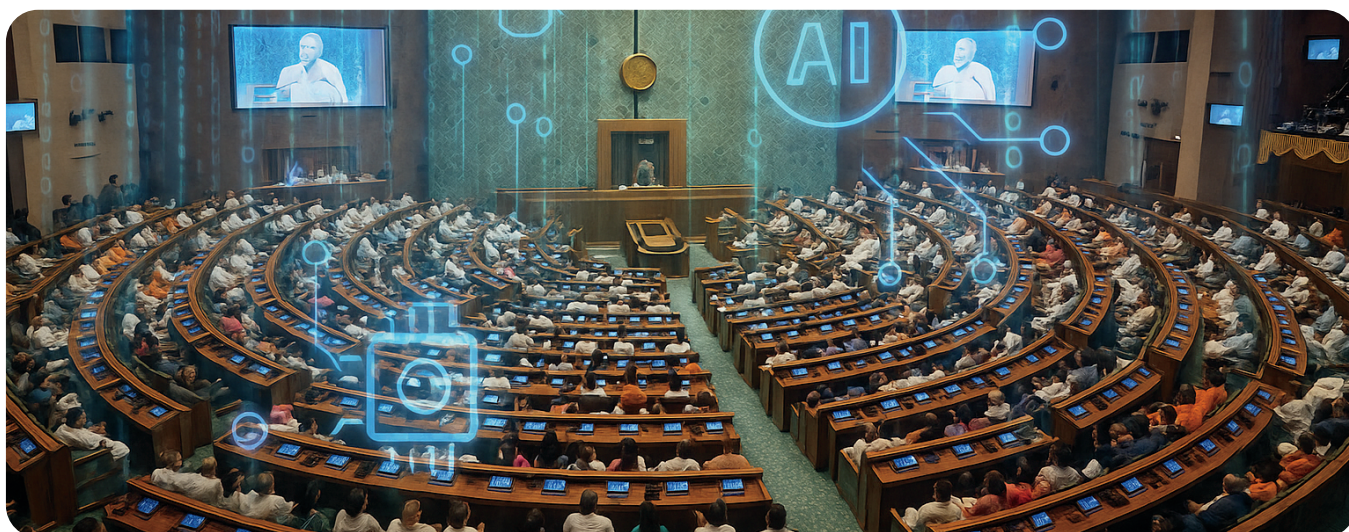
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V. Overview of AI-related developments in Parliament

1. Total Number of Instances Related to AI in Questions and Debates

Between 2014 and 2025, there have been a total of **167 questions** related to **Artificial Intelligence (AI)** raised in the Lok Sabha, and **224 questions** in the Rajya Sabha, indicating a steady, though modest, engagement with AI-related issues across both Houses of Parliament. In terms of deliberative discussions, **10 debates in the Lok Sabha and 22 debates in the Rajya Sabha** have included references to AI.

AI in Indian Parliament	
Lok Sabha Questions	167
Lok Sabha Debates	10
Rajya Sabha Questions	224
Rajya Sabha Debates	22

**Year-wise trend of AI-related questions in both houses of Parliament**

Lok Sabha

An analysis of year-wise data reveals a **gradual rise** in AI-related questions raised in the **Lok Sabha** between 2016 and 2025. In the initial years, engagement was limited, with **3 questions in 2016 and only 1 in 2017**.

However, interest began to **increase notably from 2018**, which saw **16 questions, followed by 10 in 2019 and 9 in 2020. Although there was a slight decline in 2021 (7 questions) and 2022 (8 questions)**, the momentum picked up significantly in 2023, with 27 questions, peaking in 2024 with **44 questions,** the highest recorded in the decade.

In just the budget session of **2025**, the number climbed to **42**, but remained above early-year levels. This trend indicates a growing legislative curiosity and concern around Artificial Intelligence, particularly in the years following India's digital and AI policy announcements.

Year-wise trend in Questions related to AI in Lok Sabha (2014-25)
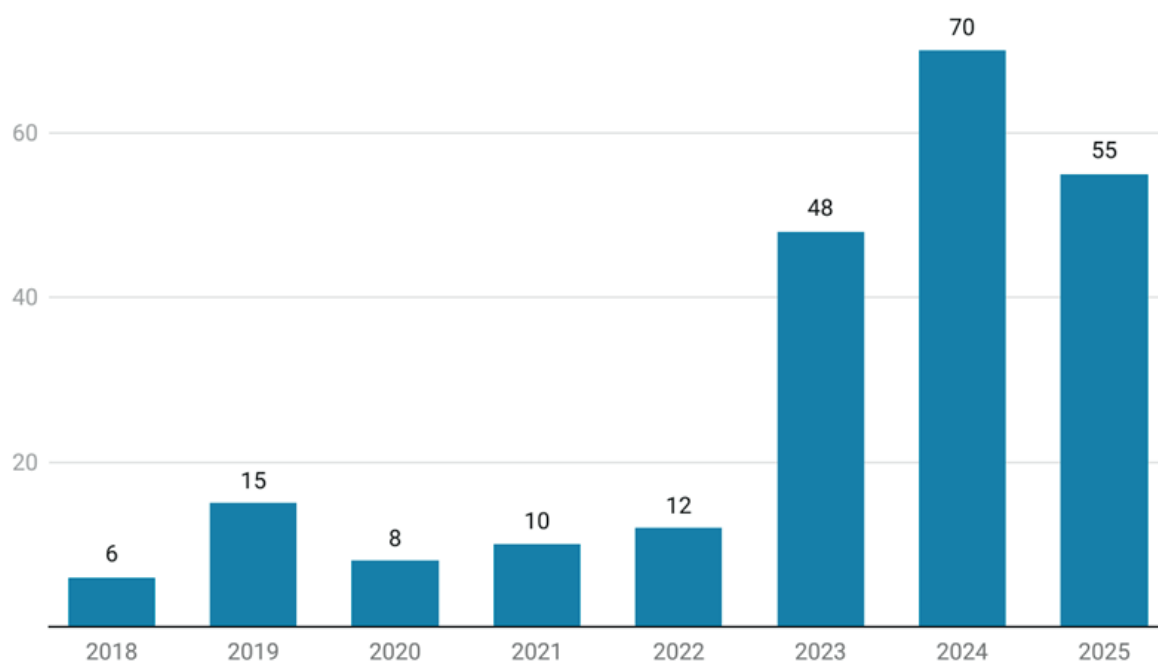

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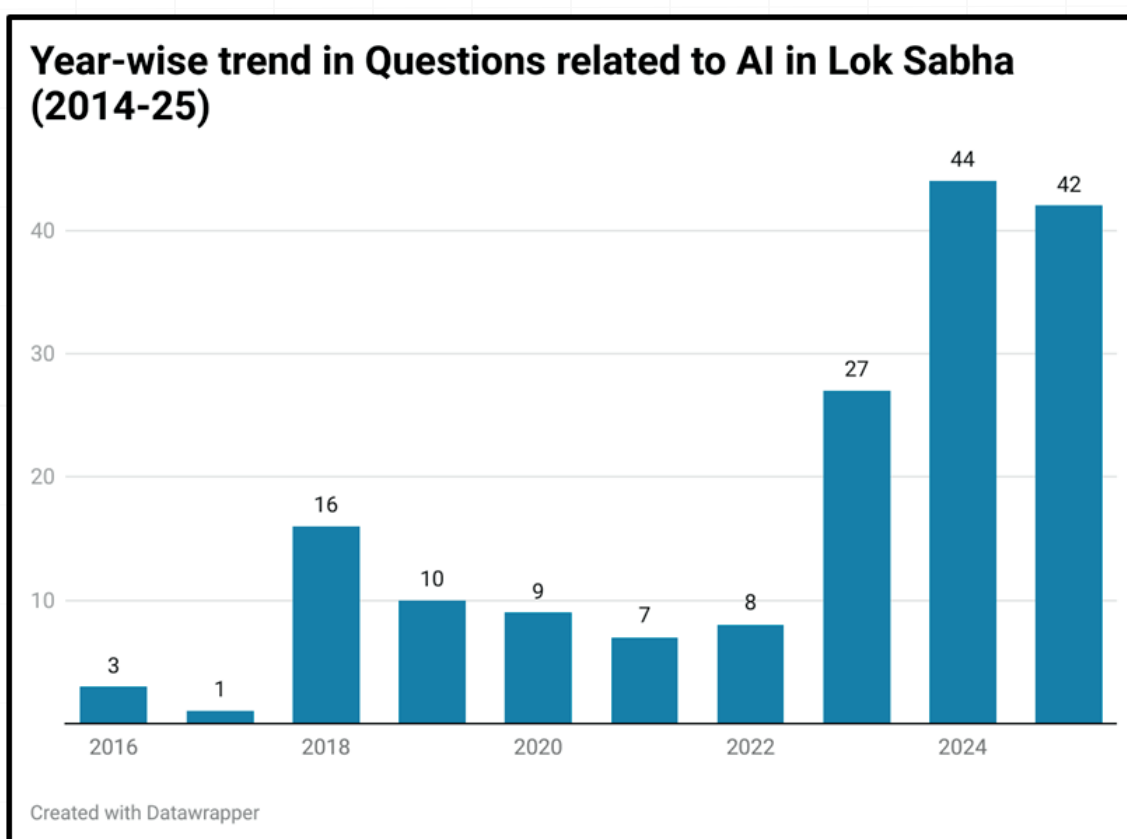
Rajya Sabha

In the **Rajya Sabha**, the pattern of engagement with **Artificial Intelligence** shows a similar trajectory of growing interest over the years. Starting with **6 questions in 2018**, the number rose to **15 in 2019**, suggesting increasing awareness among Members.

The subsequent years—**2020 (8 questions), 2021 (10 questions), and 2022 (12 questions) maintained a steady level of engagement. A significant spike occurred in 2023, with 48 questions,** marking the highest point of AI-related activity in the Upper House during the observed period. This was followed by even larger number of **70 questions in 2024, and 55 in just the Budget session of 2025.**

Year-wise trend in Questions related to AI in Rajya Sabha (2014-25)

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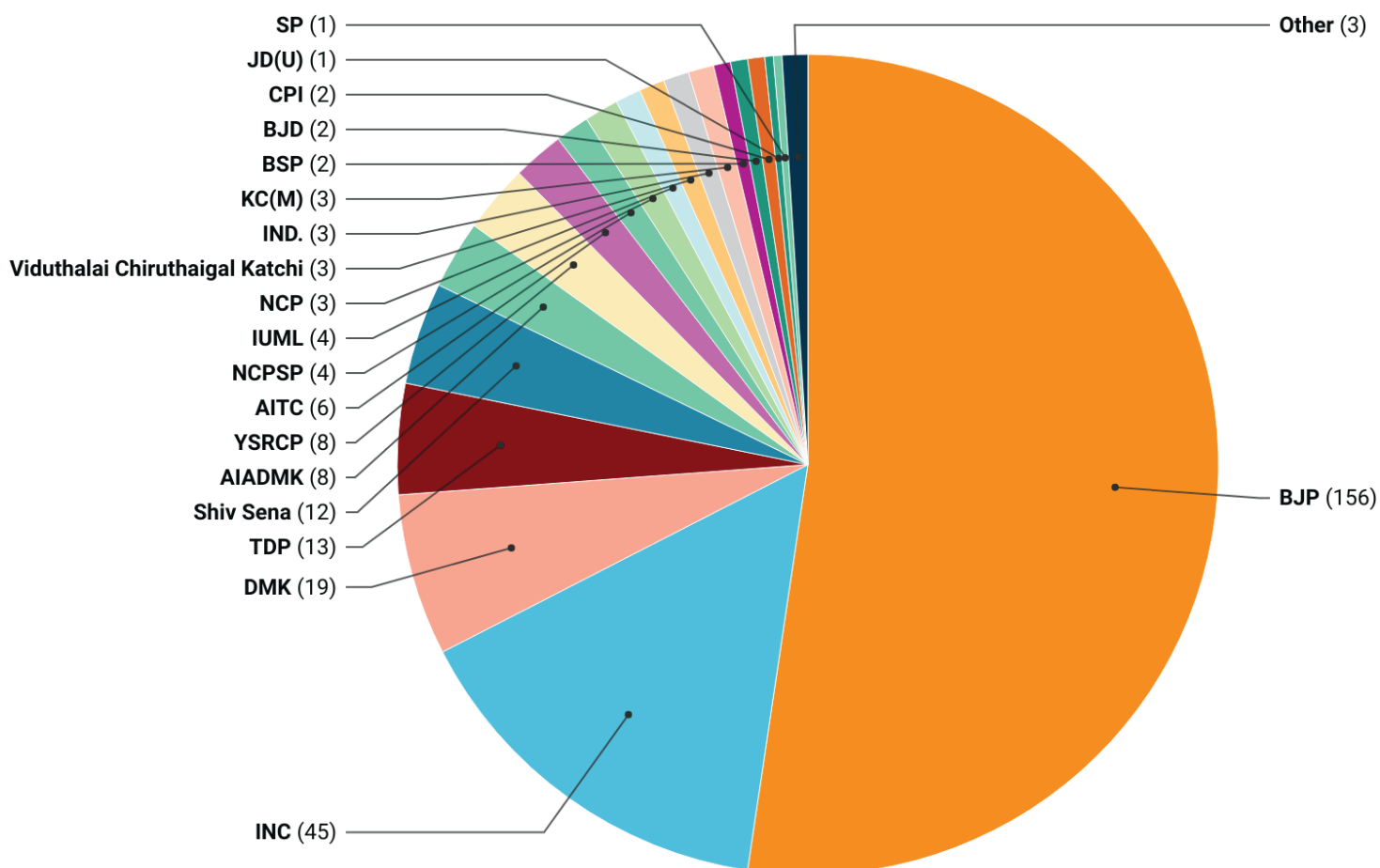
2. Questions on AI in Parliament

Lok Sabha

A party-wise analysis of AI-related engagement in Parliament between 2014 and 2025 reveals that the **Bharatiya Janata Party (BJP)** continues to lead the conversation with **156 interventions**, reflecting its parliamentary dominance and active interest in technology-driven governance. The **Indian National Congress (INC)** follows with **45** contributions, indicating a steady but comparatively moderate engagement with AI-related issues. Among regional parties, the **Dravida Munnetra Kazhagam (DMK)** stands out with **19** interventions, while **the Telugu Desam Party (TDP)** contributed **13**. Other parties such as the **Shiv Sena (12)**, **AIADMK (8)**, and **YSR Congress Party (8)** also demonstrated sustained interest in the AI discourse.

Smaller but notable contributions came from parties like the **All India Trinamool Congress (AITC, 6), NCPSP (4), Indian Union Muslim League (IUML, 4), Nationalist Congress Party (NCP, 3), Viduthalai Chiruthaigal Katchi (3), Kerala Congress (M) (3), and Independent MPs (3). A limited number of interventions (1–2) were made by the Bahujan Samaj Party (BSP), Biju Janata Dal (BJD), Communist Party of India (CPI), Sikkim Democratic Front, Telangana Rashtra Samithi (TRS), Bharat Rashtra Samithi (BRS), Janata Dal (United), and the Samajwadi Party (SP).**

In total, a broad coalition of over **20 political parties** and independents contributed to AI-related parliamentary discourse, amounting to a total of **334 interventions**. While the engagement remains uneven, the data reflects a growing, cross-party recognition of AI's importance in shaping India's legislative, regulatory, and development agendas.

Party - Wise Distribution Of AI-Related Questions In Lok Sabha (2014 - 2025)

Labels: SP (1), JD(U) (1), CPI (2), BJD (2), BSP (2), KC(M) (3), IND. (3), Viduthalai Chiruthaigal Katchi (3), NCP (3), IUML (4), NCPSP (4), AITC (6), YSRCP (8), AIADMK (8), Shiv Sena (12), TDP (13), DMK (19), INC (45), BJP (156), Other (3)
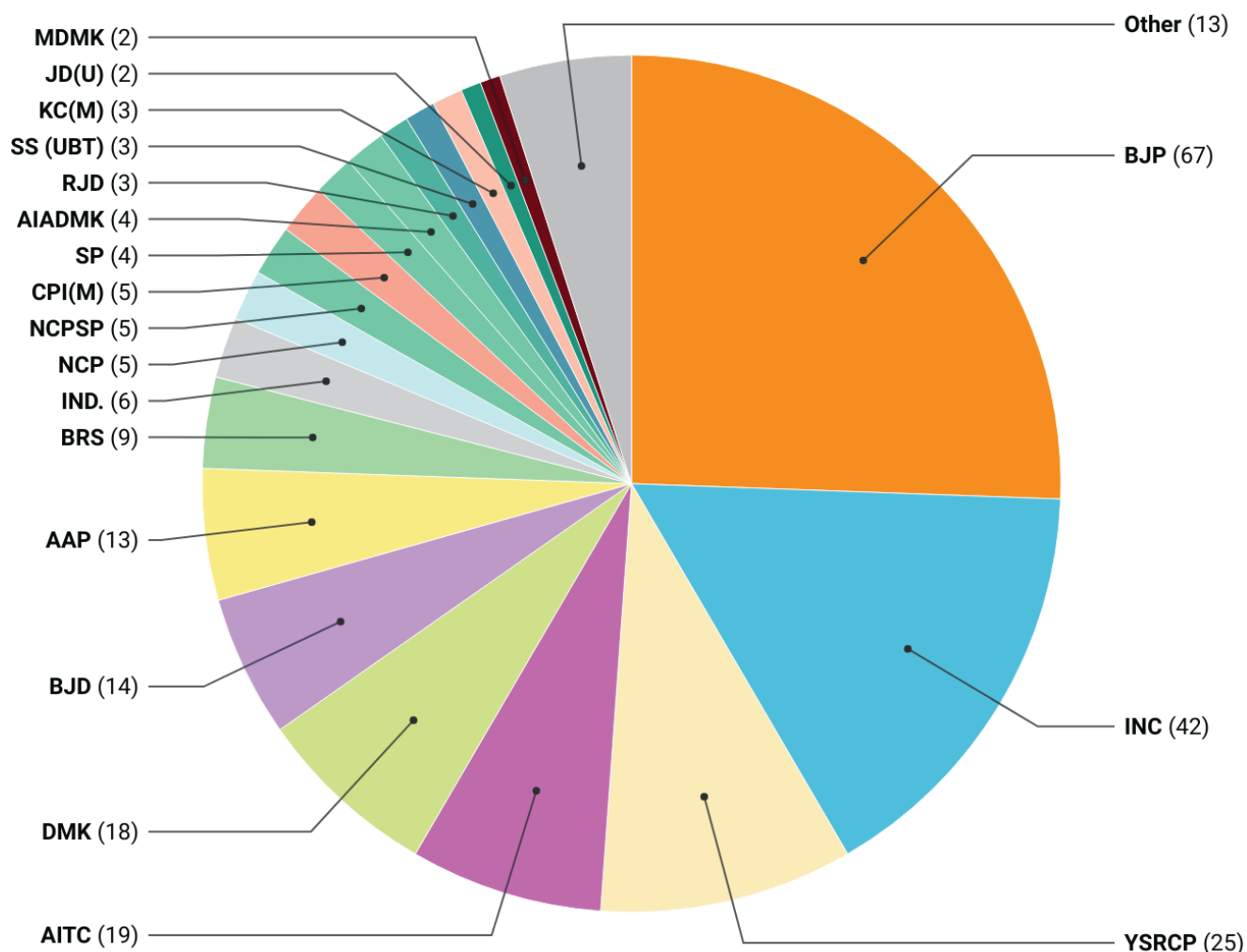
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Rajya Sabha

A detailed party-wise analysis of AI-related interventions in the **Rajya Sabha** between **2014 and 2025** shows a wide spectrum of political engagement, totaling **262 instances. The Bharatiya Janata Party (BJP)** leads with **67** contributions, reflecting both its numerical strength in the Upper House and its policy emphasis on digital transformation. **The Indian National Congress (INC)** follows with **42 interventions,** indicating consistent interest in AI governance across sessions. Regional parties also played a significant role: the **YSR Congress Party (25)**, **All India Trinamool Congress (AITC, 19)**, **Dravida Munnetra Kazhagam (DMK, 18)**, and **Biju Janata Dal (BJD, 14)** all demonstrated substantial engagement.

The **Aam Aadmi Party (AAP)** contributed **13 questions,** while parties like the **Bharat Rashtra Samithi (BRS, 9), Nationalist Congress Party (NCP, 5), Communist Party of India (Marxist) (CPI-M, 5), and NCPSP (5)** added to the diversity of voices in the discourse. Notable contributions also came from **Independent MPs (6)** and smaller parties such as the **Samajwadi Party (4), AIADMK (4), RJD (3), Shiv Sena (2), TRS (2), Janata Dal (United) (2), CPI (2),** and others including **MDMK, LJD, JMM, PMK, TDP, IUML, and BSP,** each with at least one intervention.

Party - Wise Distribution Of AI-Related Questions In Rajya Sabha (2014 - 2025)

Legend values from chart:

- Other (13)
- BJP (67)
- INC (42)
- YSRCP (25)
- AITC (19)
- DMK (18)
- BJD (14)
- AAP (13)
- BRS (9)
- IND. (6)
- NCP (5)
- NCPSP (5)
- CPI(M) (5)
- SP (4)
- AIADMK (4)
- RJD (3)
- SS (UBT) (3)
- KC(M) (3)
- JD(U) (2)
- MDMK (2)

3. Regional Spread in Questions on AI

Lok Sabha

The regional distribution of AI-related questions in the Lok Sabha from 2014 to 2025 reveals a strong concentration of engagement in technologically forward and politically influential states. **Maharashtra leads with 46 questions**, followed closely by **Tamil Nadu (41)** and **Uttar Pradesh (26)** highlighting sustained interest from large, industrial, and politically significant regions. **Andhra Pradesh (23), Kerala (19), Rajasthan (18), and Madhya Pradesh (17)** also featured prominently, suggesting that southern and central states are actively engaging with AI's legislative discourse.
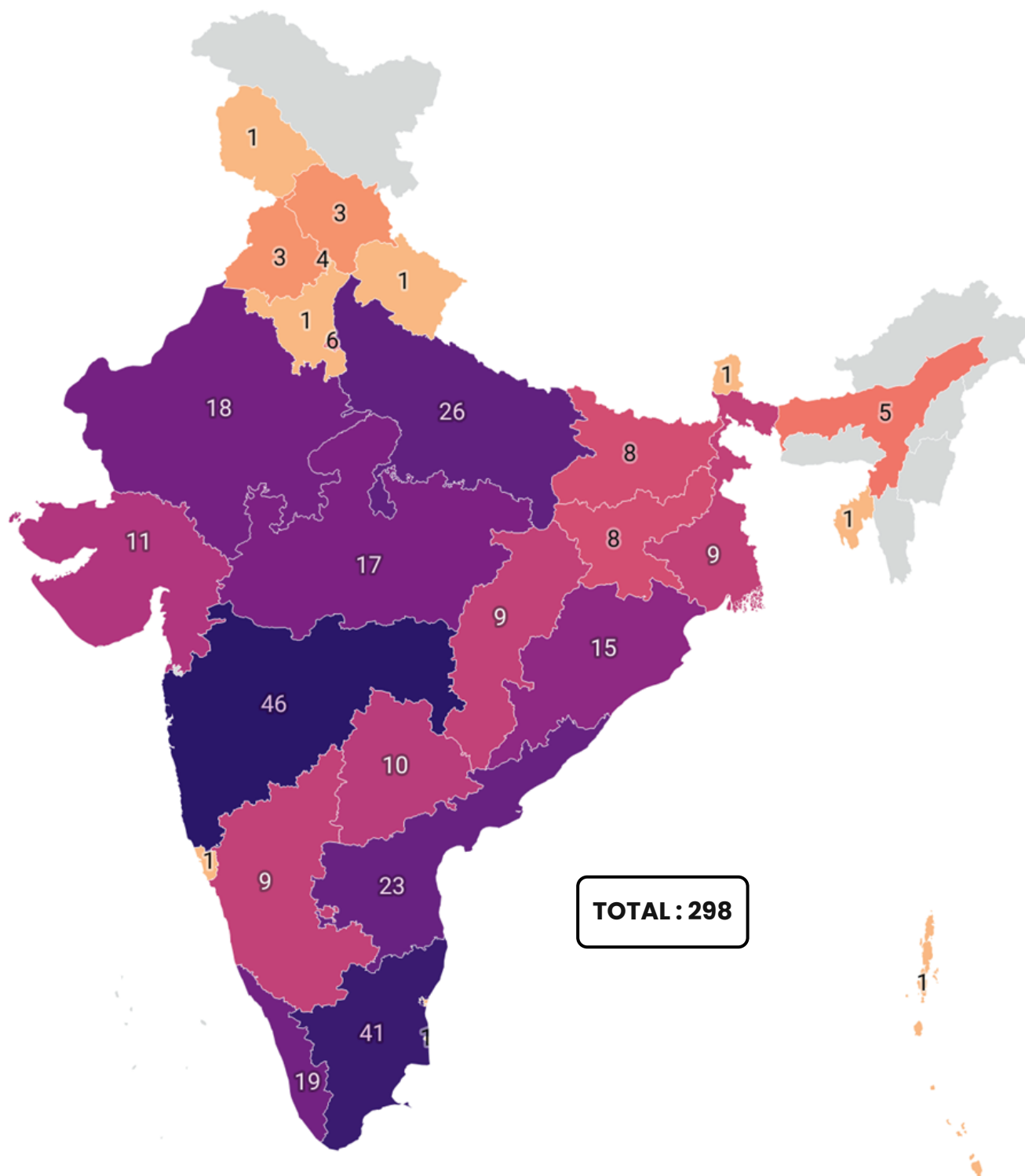
Other states such as **Odisha (15), Gujarat (11), Telangana (10), Karnataka (9), West Bengal (9), Chhattisgarh (9), Bihar (8), and Jharkhand (8)** show moderate levels of participation, reflecting a growing pan-India awareness of AI's implications. Contributions from the **NCT of Delhi (6)** and northeastern states like **Assam (5)** further extend the geographic diversity of engagement. Smaller union territories and states—including **Chandigarh (4), Himachal Pradesh (3), Punjab (3), Puducherry, Sikkim, Andaman & Nicobar Islands, Uttarakhand, Goa, Jammu & Kashmir, Tripura, and Haryana (each with 1)** reflect limited but symbolic inclusion in the AI discourse.

AI Generated Image

Lok Sabha Engagement on AI: A Regional View

Based on total instances of questions asked by MPs (including multiple questions by the same member)


TOTAL : 298

Rajya Sabha

The regional distribution of AI-related questions in the **Rajya Sabha** between **2014 and 2025** highlights strong participation from several key states, reflecting both political representation and rising concern over AI's implications across sectors. **Andhra Pradesh leads with 28 questions**, followed closely by **Maharashtra (27)** and **Uttar Pradesh (26)**, indicating sustained attention from states with significant technological ecosystems and administrative scale. **Tamil Nadu (25), Karnataka (20), and West Bengal (20)** also feature prominently, showcasing consistent engagement from southern and eastern regions.

States like **Kerala (16), Odisha (15), and Telangana (14)** add further depth to the discourse, while **Gujarat (11), Jharkhand (10), and Punjab (10)** reflect strong regional interest in AI policy and governance. Mid-level contributors include **Madhya Pradesh (8), Haryana (7), Chhattisgarh (6), Rajasthan (6), and Bihar (5), with NCT of Delhi (5)** also actively participating despite its limited number of representatives.

Smaller states and union territories such as **Goa (2) and Tripura (1)** contributed minimally, yet their presence suggests a gradually expanding footprint of AI awareness even in less-represented regions.

Rajya Sabha Engagement on AI: A Regional View

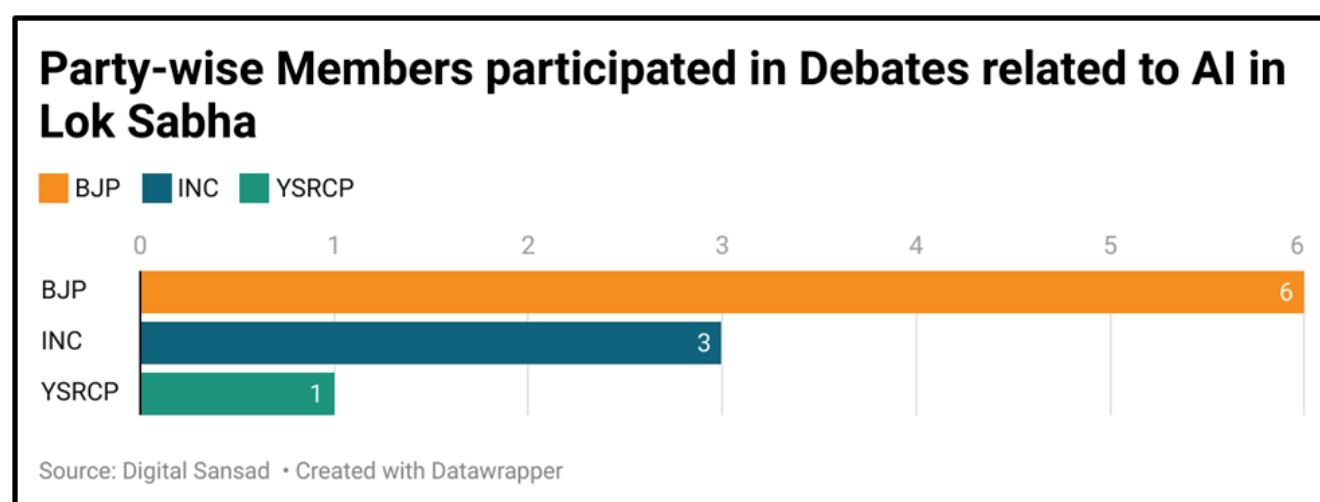Based on total instances of questions asked by MPs (including multiple questions by the same member)

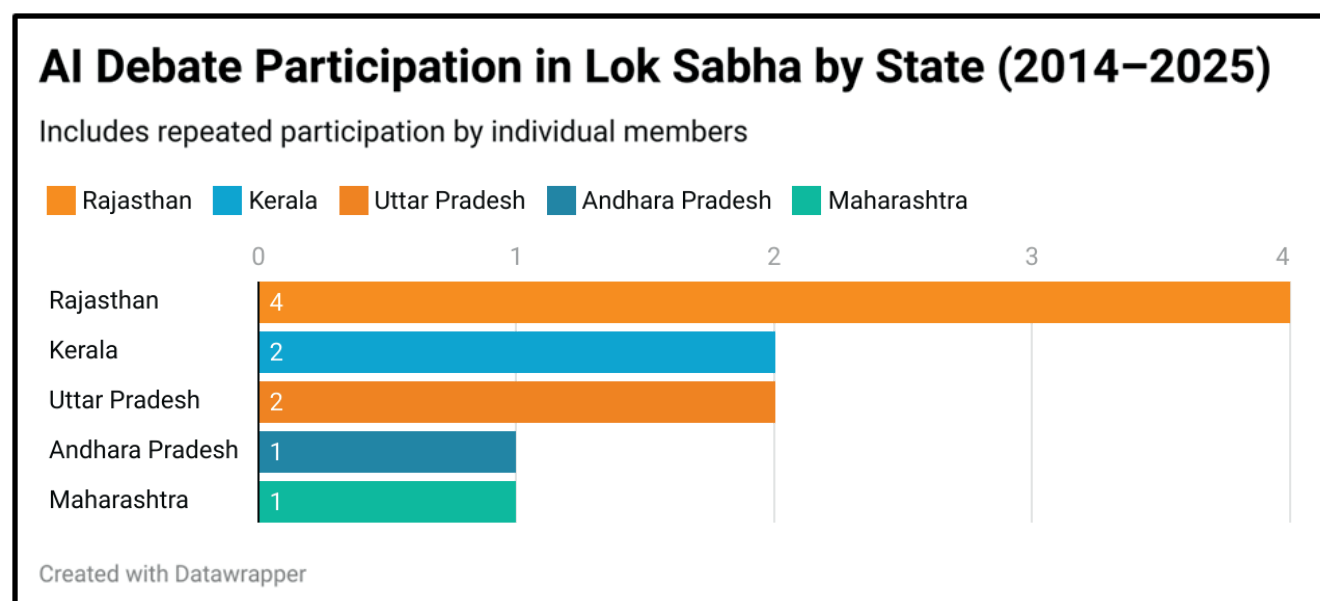TOTAL : 262
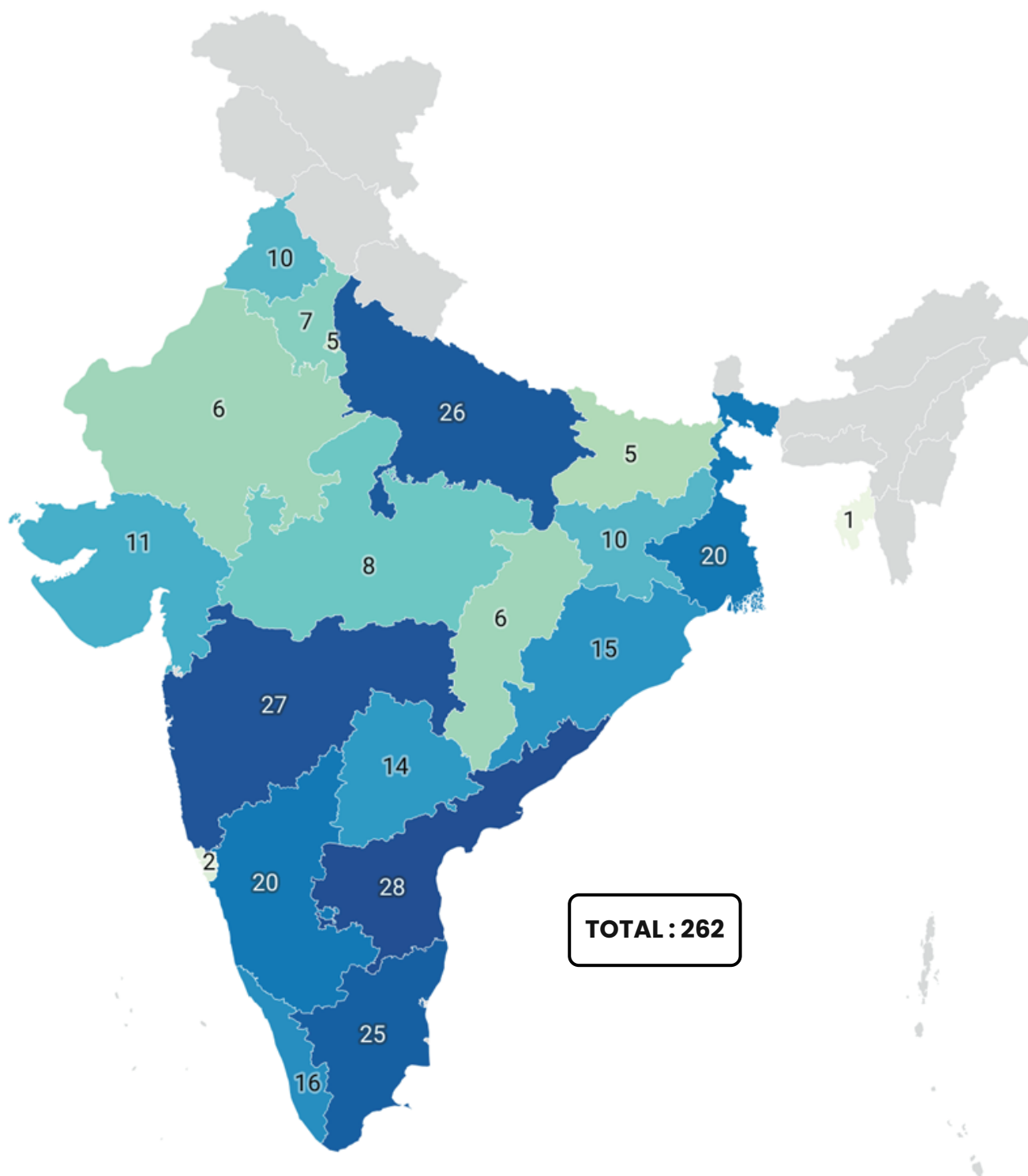
4. Debates In Parliament

Lok Sabha

Between **2014 and 2025,** only ten AI-related debates were recorded in the Lok Sabha, reflecting limited yet noteworthy parliamentary engagement. The **Bharatiya Janata Party (BJP)** led with six **MPs** contributing, while three **MP** from the **Indian National Congress (INC)** and one from **YSR Congress Party (YSRCP)** also participated.

Party-wise Members participated in Debates related to AI in Lok Sabha

BJP — INC — YSRCP

Party	Value
BJP	6
INC	3
YSRCP	1

Source: Digital Sansad · Created with Datawrapper

From a state-wise perspective, **Rajasthan** accounted for four contributions, while two from **Kerala**, and **Uttar Pradesh** each. While **Andhra** and **Maharashtra** had one participating MP.

AI Debate Participation in Lok Sabha by State (2014–2025)

Includes repeated participation by individual members

Rajasthan — Kerala — Uttar Pradesh — Andhara Pradesh — Maharashtra

State	Value
Rajasthan	4
Kerala	2
Uttar Pradesh	2
Andhara Pradesh	1
Maharashtra	1

Created with Datawrapper

Rajya Sabha

The regional distribution of **AI-related questions** in the Rajya Sabha between **2014 and 2025** highlights strong participation from several key states, reflecting both political representation and rising concern over AI's implications across sectors. Andhra Pradesh leads with **28 questions**, followed closely by **Maharashtra (27)** and **Uttar Pradesh (26)**, indicating sustained attention from states with significant technological ecosystems and administrative scale. **Tamil Nadu (25)**, **Karnataka (20)**, and **West Bengal (20)** also feature prominently, showcasing consistent engagement from southern and eastern regions.

Party-wise Members participated in Debates related to AI in Rajya Sabha

Legend: BJP, BJD, CPI (M), YSRCP, CPI, NCP, AITC, BRS, Independent, DMK, INC, SS, KC(M)

Party	Value
BJP	28
BJD	10
CPI (M)	5
YSRCP	5
CPI	3
NCP	2
AITC	2
BRS	2
Independent	2
DMK	1
INC	1
SS	1
KC(M)	1

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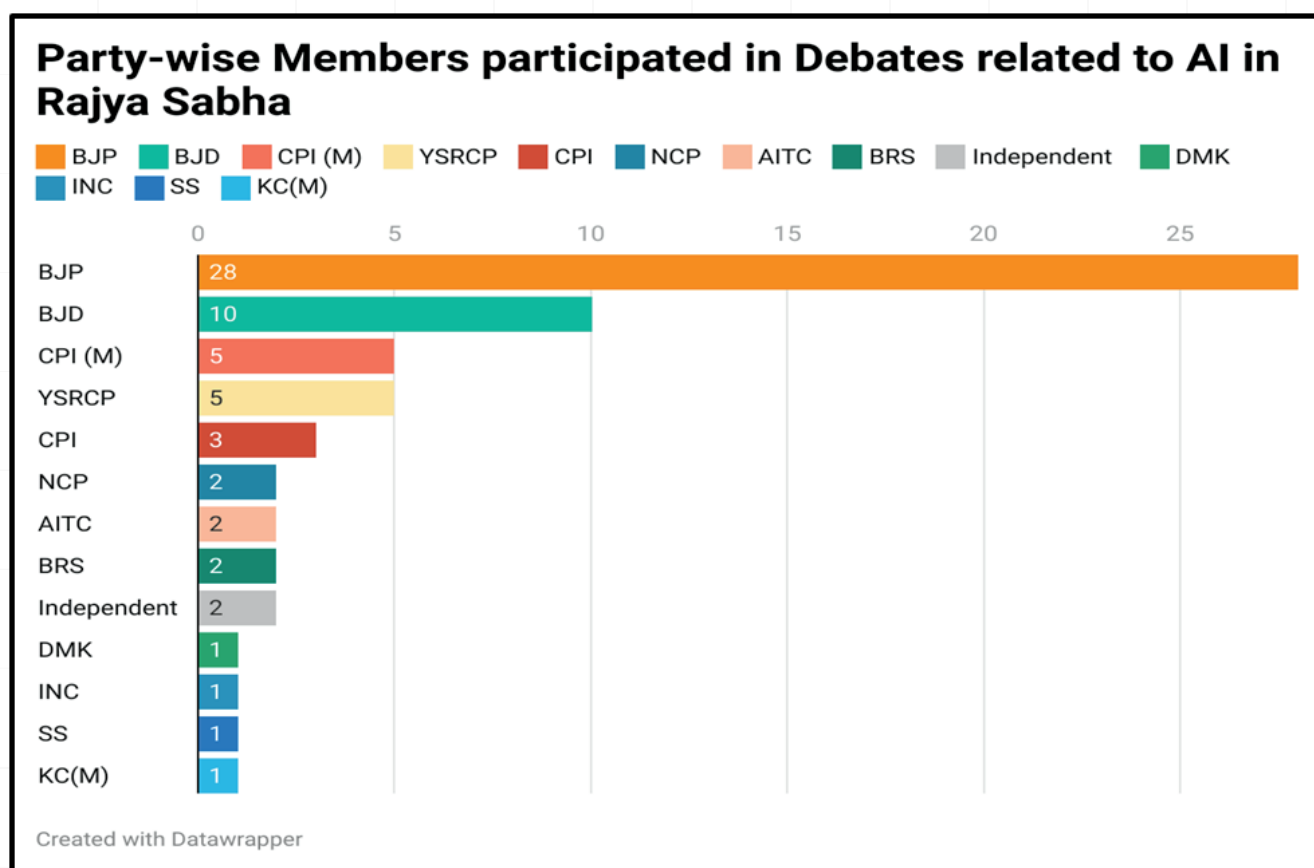
From a state-wise perspective, **Odisha** led with **10 interventions**, followed by **Kerala (9), Uttar Pradesh (7), and Maharashtra and Andhra Pradesh (5 each)**. **Madhya Pradesh (4), Assam and Bihar (3 each), and several states including Gujarat, Nagaland, Telangana,** and **West Bengal (2 each)** also contributed. Individual contributions also came from states like **Goa, Haryana, Jharkhand, Tamil Nadu, Tripura, Uttarakhand,** and **Rajasthan,** as well as nominated members.

AI Debate Participation in Rajya Sabha by State (2014–2025)

Includes repeated participation by individual members
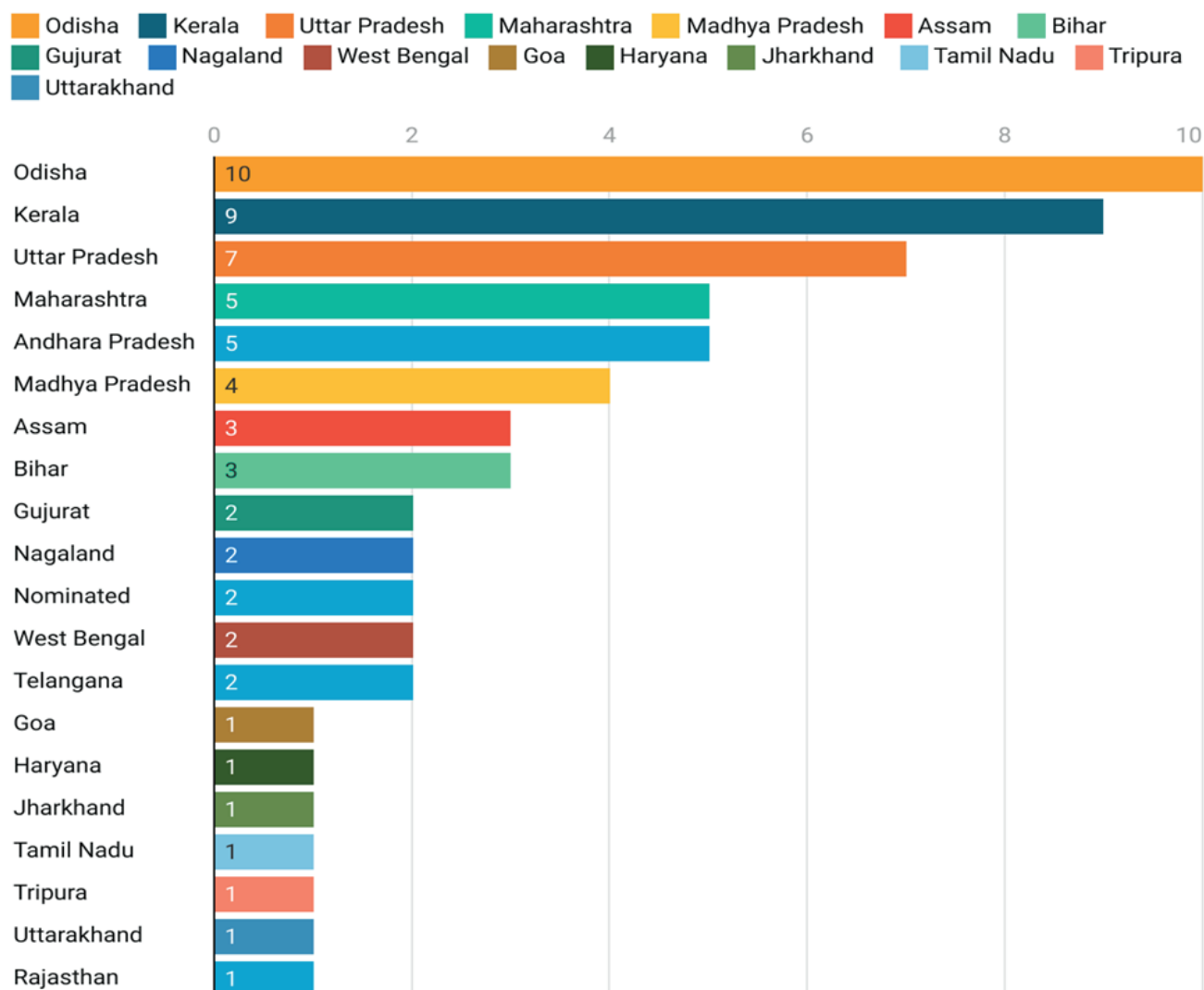
AI Debate Participation in Rajya Sabha by State (2014 - 2025)

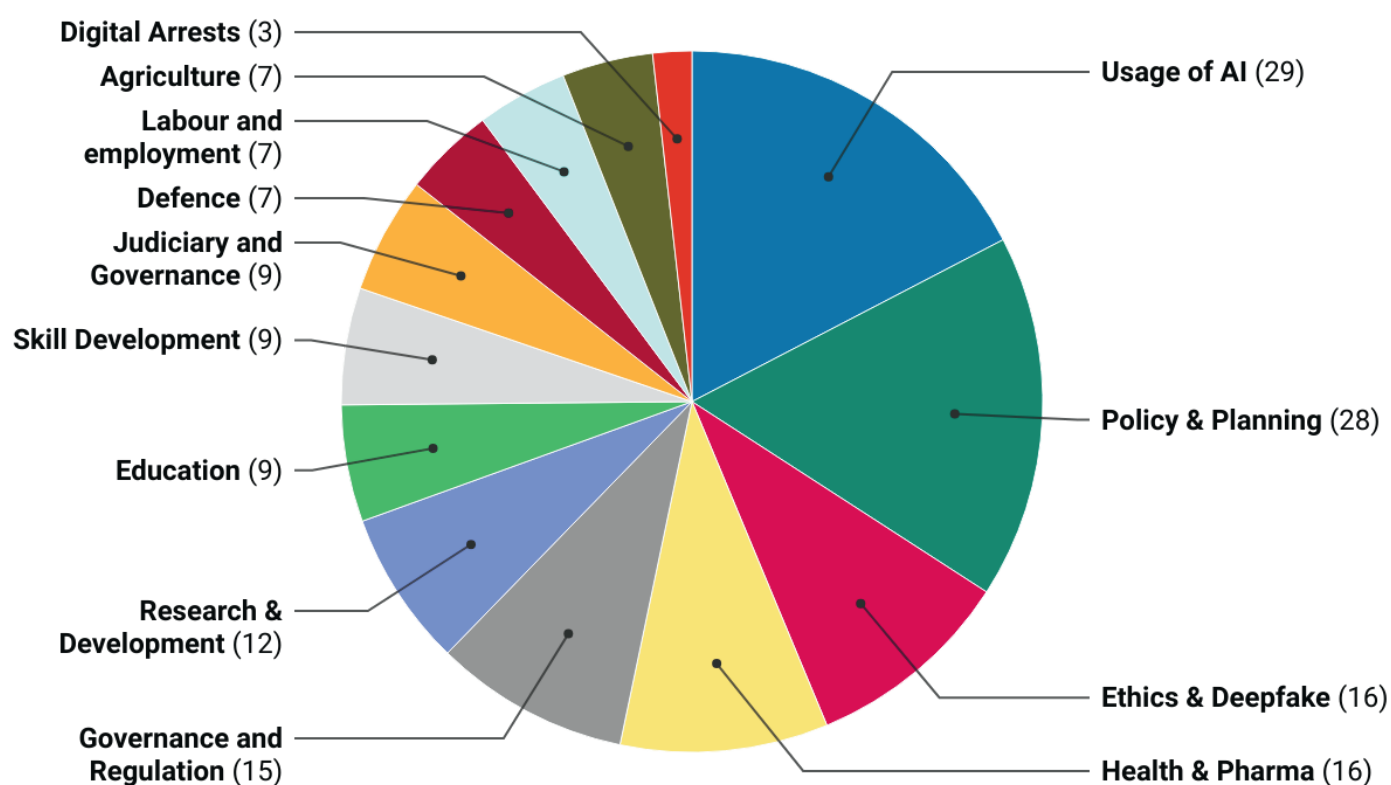# VI. Thematic Classification of AI Discussions

Lok Sabha

The theme-wise analysis of **167 AI-related questions** in the **Lok Sabha** from **2014 to 2025** highlights a broadening parliamentary engagement with the opportunities and challenges posed by artificial intelligence. **"Usage of AI" (29 questions)** and **"Policy & Planning" (28)** emerged as the most frequently discussed themes, suggesting a strong interest in both practical applications and the strategic direction of AI in public systems, governance, and national development. Close behind were **"Ethics & Deepfake" (16)** and **"Health & Pharma" (16)**, reflecting concerns around misinformation, deepfake technology, and the integration of AI in critical sectors such as public health.

Equally notable is the attention given to **"Governance and Regulation" (15)**, indicating an evolving awareness of the need for oversight frameworks and institutional readiness. Topics like **Research & Development (12), Education (9), Skill Development (9),** and **Judiciary and Governance (9)** point to a multidimensional understanding of AI's systemic impact on learning, legal processes, and workforce preparedness.

Although sectors such as **Defence (7), Labour and Employment (7),** and **Agriculture (7)** received relatively fewer mentions, their inclusion signals the growing recognition of AI's cross-sectoral relevance. Emerging areas like **Digital Arrests (3)** reflect the early parliamentary attention to legal and technological safeguards.

**Thematic Distribution of AI - Related
Questions in Lok Sabha (2014 - 2025)**

Digital Arrests (3)
Agriculture (7)
Labour and employment (7)
Defence (7)
Judiciary and Governance (9)
Skill Development (9)
Education (9)
Research & Development (12)
Governance and Regulation (15)

Usage of AI (29)
Policy & Planning (28)
Ethics & Deepfake (16)
Health & Pharma (16)

Rajya Sabha

A thematic analysis of AI-related questions in the Rajya Sabha from **2014 to 2025** suggests a broader pattern of parliamentary concerns. These include the diverse impact of AI on sectors and societal structures. The most frequently addressed theme was **"Usage of AI"** with **47 questions**, highlighting MPs' interest in real-world applications across governance, agriculture, public services, and infrastructure. **"Policy & Planning"** followed with **38 questions**, indicating a strong demand for national strategies, institutional preparedness, and regulatory foresight.

Digital Arrests (3)
Health & Pharma (7)
Governance & Judiciary (9)
Agriculture (10)
Labour and employment (12)
Skill Development (13)
Research & Development (15)
Ethics & Deepfake (22)
Education (22)

Defence (2)
Usage of AI (47)
Policy & Planning (38)
Governance and Regulation (24)
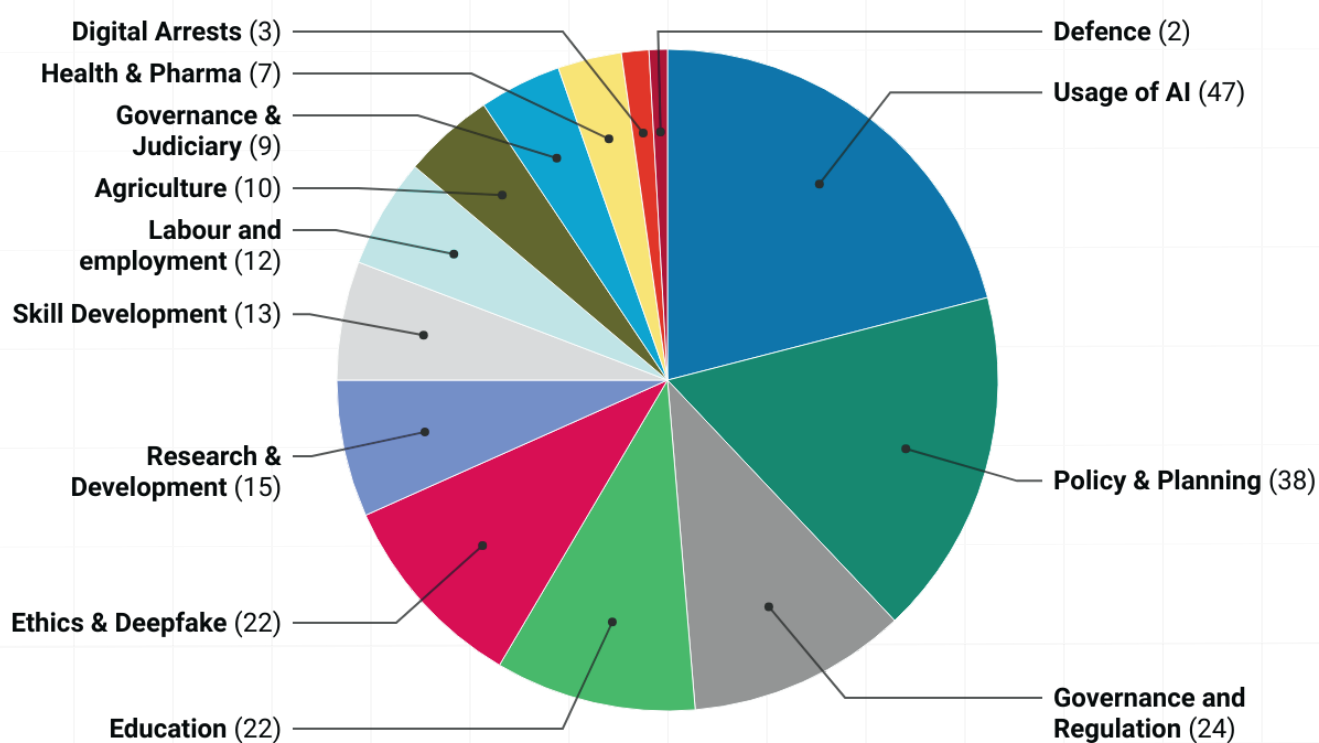
Thematic Distribution of AI - Related Questions in Rajya Sabha (2014 - 2025)

Substantial focus was also seen in **"Governance and Regulation" (24),** **"Education" (22),** and **"Ethics & Deepfake" (22)**, pointing to the Upper House's concern for both systemic governance and the social risks posed by AI misuse. Other recurring themes included **Research & Development (15), Skill Development (13), and Labour** and **Employment (12)**, reflecting growing awareness of AI's implications for jobs, innovation, and future readiness.

Sectors such as **Agriculture (10), Governance & Judiciary (9),** and **Health & Pharma (7)** also appeared in parliamentary questioning, albeit with comparatively fewer interventions. Niche but emerging concerns like **Digital Arrests (3)** and **Defence (2)** reflect early-stage attention to legal, security, and ethical frameworks.
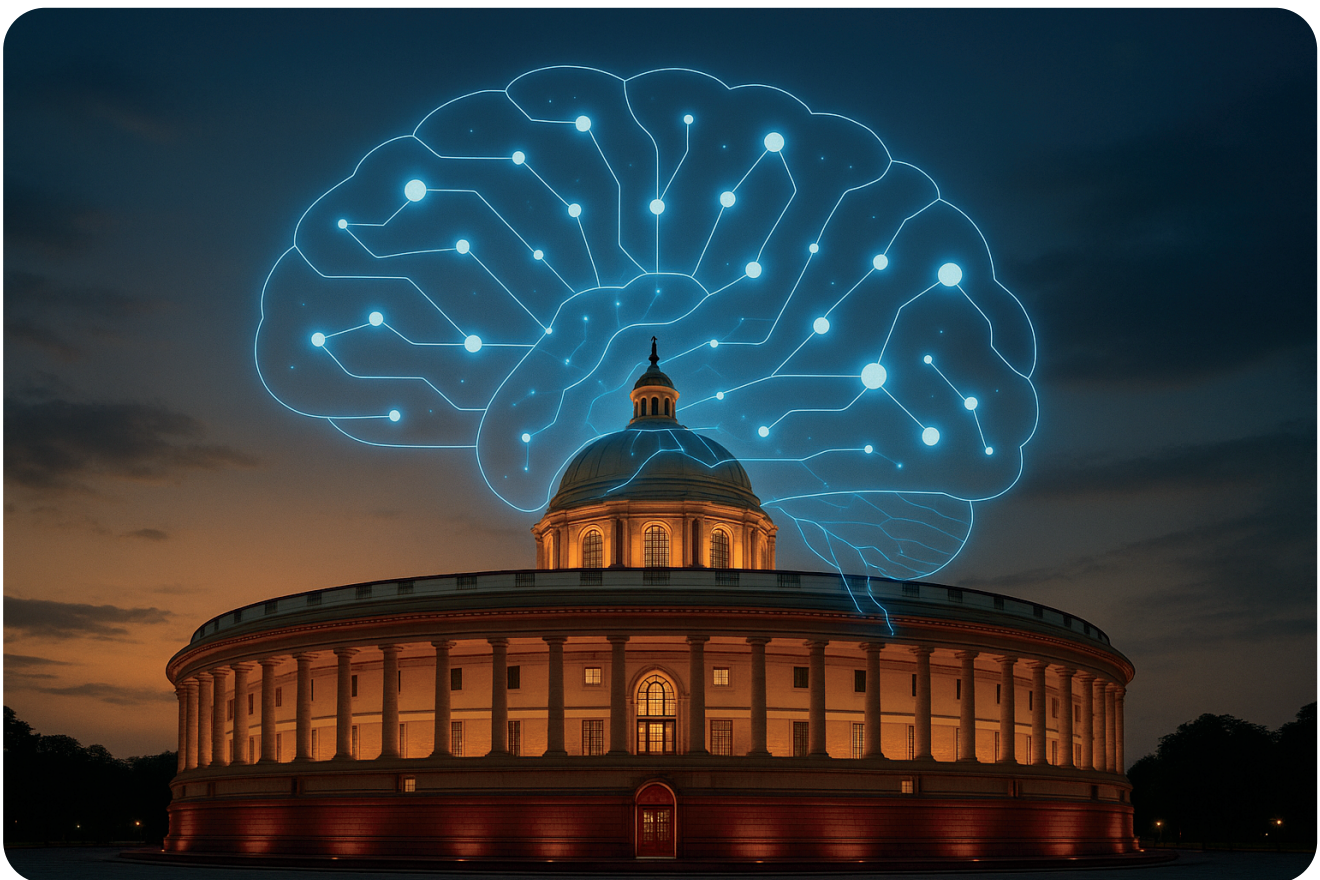
AI Generated Image

VII. Gaps and Missed Opportunities

While the data reveals a growing engagement of Indian Parliamentarians with AI between 2014 and 2025, significant thematic and structural gaps persist in the discourse. Newly emerging and crucial themes—spanning environmental sustainability, global standards alignment, advanced technologies, and regional inclusion—remain significantly underrepresented. Persistent blind spots are evident across the following domains:

1. Environmental Sustainability and Impact

Parliamentary debate has largely overlooked the profound environmental challenges posed by AI infrastructure:

- Water usage by AI data centres and the lack of scrutiny on mandatory water reporting, recycling, and treated wastewater use.

- Carbon footprint and climate impact of AI infrastructure, with little attention given to renewable energy mandates or integration of AI growth with India's climate commitments.

- Environmental impact assessments specific to large-scale AI deployments have rarely featured in discussions.

2. International Frameworks and Standards

Critical gaps exist in aligning India's domestic development with global AI norms:

- OECD AI Principles and UNESCO Ethics Framework are not systematically debated, with no sustained examination of their adoption, compliance, or impact on India's policies.

- Limited review of participation or obligations in international AI summits and alliances, missing opportunities for India to influence global AI governance.

3. Governance of Advanced and Emerging AI Technologies

Foresight-driven governance of next-generation AI remains superficial :

- Limited attention to agentic AI systems, liability for autonomous AI actions, and the integration of quantum computing with AI.

- Weak parliamentary inquiry into advanced regulatory frameworks, supply chain resilience for AI hardware, or public transparency and audit requirements for high-risk systems.

4. Data, Digital Sovereignty, and Sectoral Sovereignty

Important questions around digital autonomy are not adequately tackled:

- Sparse focus on data ownership, localization, consent for government data usage, and safeguarding sovereignty in the face of foreign platform dominance.

- Semiconductor supply chain resilience and indigenous chip manufacturing strategies, vital for AI independence, remain largely unaddressed.

5. Socioeconomic and Regional Inclusion

There is a lack of comprehensive strategies for equitable AI benefits:

- Inadequate planning for workforce transition in the face of automation, especially across rural, Tier 2/3 cities, tribal, and marginalized demographics.

- Little examination of digital infrastructure and skill-building initiatives beyond metropolitan areas or sectoral support for small farmers and rural enterprises.

6. Ethics, Rights, and Social Justice

While topics like deepfakes and misinformation were occasionally raised, more complex and lasting issues have not received the necessary focus:

- Questions on Algorithmic bias, accountability, fairness, and accessibility in AI systems are remains low.

- Public debate on the social impacts of AI for women, children, minorities, and persons with disabilities is minimal, and systemic reforms ensuring inclusive, human-centric AI are lacking

7. National Security and Strategic Autonomy

Parliamentary debate seldom addresses the security dimensions of AI:

- India's dependence on foreign AI technologies, digital sovereignty planning, and the use of AI in defence and critical sectors requires more sustained scrutiny.

- The strategic and operational risks of autonomous and agentic AI remain barely explored.

8. Governance Structures and Oversight

Finally, a major missed opportunity lies in the absence of structural reforms:

- No dedicated parliamentary AI oversight committee exists to provide regular, cross-sectoral review.

- Gaps persist in tracking national AI commitments, fostering expertise among MPs, and ensuring inclusive policy coordination.

9. Party, State, and Demographic Representation

Engagement remains concentrated among major national parties and more digitally advanced states:

- States with high rural populations or lower digital penetration—where AI could significantly transform lives—have limited roles in parliamentary AI debates.

- Many regional and smaller parties have yet to prioritize or even discuss AI policy, highlighting an uneven spread of technological awareness and vision across the political spectrum.

Parliamentarians must expand beyond basic questions of funding and adoption. A holistic, proactive approach that addresses these multi-dimensional gaps is crucial for leveraging AI responsibly and inclusively, both for India's development and for global leadership in the technology's ethical governance.

AI Generated Image

VIII. Recommendations for Parliamentarians

As artificial intelligence increasingly shapes India's economy, democracy, and society, Parliamentarians play a decisive role in steering AI toward inclusive, ethical, and sustainable outcomes. Addressing current gaps requires bold, multi-dimensional reforms and proactive engagement. The following recommendations integrate critical themes from environmental sustainabililty and global standards to regional inclusion and advanced technological oversight ensuring a comprehensive parliamentary response.

1. Deepen and Broaden the Scope of Inquiry

Parliamentarians should expand beyond general questions, integrating underexplored and high-impact themes:

Environmental Accountability

- Scrutinize water usage, recycling practices, and carbon emissions from AI data centers.

- Encourage the implementation of renewable energy requirements and environmental impact assessments (EIA) for all significant AI infrastructure projects.

Global Standards Alignment

- Question India's adoption of OECD AI Principles and UNESCO AI Ethics Framework; ensure regular compliance reporting and harmonization within domestic policy.

Advanced Technologies and Agentic AI

- Probe the regulatory readiness for agentic (autonomous) AI, quantum-AI convergence, and indigenous chip/supply chain development..

Socioeconomic & Regional Inclusion

- Champion queries on AI deployment in Tier 2/3 towns, marginalized communities, primary sector (agriculture), and workforce transition plans.

Ethics, Rights, and Social Justice

- Demand clarity on measures to counter algorithmic bias, ensure inclusivity, protect digital sovereignty, and guard against surveillance abuse.

2. Advance Structural and Policy Reforms

To transform parliamentary engagement from episodic to systemic, institutional change is essential:

Dedicated Oversight and Coordination

- Constitute a Parliamentary Committee or Forum on AI and Emerging Tech for expert-led, cross-party oversight.

- Institutionalize quarterly reviews of national AI strategies, sectoral projects, and policy compliance.

Mandatory AI Risk Assessments

- Require that all public digital infrastructure and major procurement projects undergo AI, environmental, and ethics risk reviews.

Transparent Reporting and State-Level Equity

- Mandate ministries to publish State-wise AI Readiness Reports, highlighting gaps in capacity, digital access, and skill development, especially for rural and underserved states.

- Embed periodic parliamentary tracking of India's commitments to global AI treaties, declarations, and responsible AI norms.

Foresight in Technology Policy

- Advocate for structured debate on agentic AI, quantum-AI integration, advanced chip manufacturing, and strategic autonomy for critical technologies

3. Advance Structural and Policy Reforms

Sustained, inclusive AI engagement requires investment in knowledge and community participation:

MP Research Support

- Institute MP Research Fellows focused on emerging technologies, technology policy tracking, and constituency-level impact research.

Expand Constituency Engagement

- Partner with civil society, academia, and industry to organize AI awareness camps targeting rural, marginalized, and Tier 2/3 city constituencies.

- Develop resources and toolkits to engage diverse communities (women, linguistic minorities, persons with disabilities) in local AI development.

Transparency and Skills Building

- Provide MPs with regular briefings on global AI developments, India's international leadership, domestic risks (climate, sovereignty, ethics), and sectoral opportunities.

- Facilitate cross-party study tours, expert workshops, and parliamentary question banks for robust AI oversight.

Monitor and Evaluate

- Establish mechanisms for tracking implementation of parliamentary recommendations and government commitments on AI across all relevant ministries.

A forward-looking, coordinated parliamentary strategy rooted in environmental sustainability, global leadership, technical foresight, and social equity is essential for shaping India's AI revolution. This report lays a strategic foundation for how India's Parliament can harness artificial intelligence as a force multiplier for economic growth, social equity, and democratic resilience.
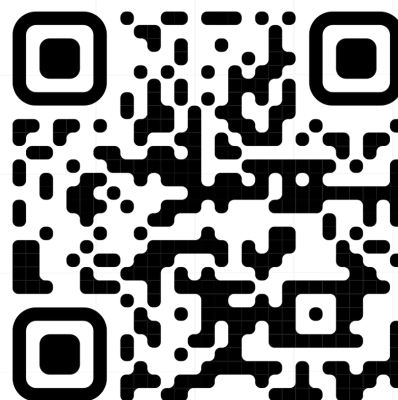
The recommendations presented are not just policy prescriptions but a roadmap for embedding AI into the very fabric of India's development journey. With foresight in execution and unwavering political will, India can set global standards in responsible, inclusive and trustworthy AI, ensuring that no region or community is left behind from its benefits.

By aligning AI governance with the ideals of **Viksit Bharat @2047**, the Indian Parliament can steer the nation toward a future where technology upholds the principles of justice, inclusivity, and sustainability, transforming India into a developed, innovation-led economy and a global leader in ethical and human-centric AI.

Annexures

Link to the data file with all the entries
of questions and debates

SCAN THIS TO
ACCESS

tinyurl.com/ai-in-parliament

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Thank You Note

Future Shift Labs

We extend our deepest gratitude to all the parliamentarians, researchers, civil society members, and institutional partners who made this pioneering analysis possible. Your engagement is shaping the frontlines of India's digital democracy.

AI and Indian Parliament is the first data-driven effort to systematically analyze the scope, distribution, and gaps in legislative engagement with AI from 2014 to 2025. It reflects our core commitments:

- **Evidence-based Policy:** Grounding future decisions in structured legislative data.

- **Institutional Foresight:** Anticipating emerging AI challenges before they become crises.

- **Equity and Inclusion:** Ensuring Tier 2/3 cities, marginalized communities, and underrepresented regions are not left behind.

- **Global Alignment:** Connecting India's AI vision with international standards like the OECD Principles and UNESCO Recommendations.

- **Sustainability and Ethics:** Embedding environmental and social safeguards into the heart of technology policy.

We hope deeper legislative inquiry, drives structural reform, and supports the creation of a dedicated Parliamentary Forum on AI. Above all, we hope it empowers a democratic AI future that reflects the voices, aspirations, and rights of every Indian.

Thank you for your courage, curiosity, and collaboration.
The future is being written and your leadership will define its direction.

Visit our website
www.futureshiftlabs.com

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