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Designing Enterprise Ai Centers of Excellence: A Framework for State Government

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ABSTRACT

The advancement of artificial intelligence technologies necessitates structured governance mechanisms within state government institutions to harness transformative potential while mitigating associated risks. This research presents a comprehensive framework for designing and implementing Enterprise AI Centers of Excellence tailored specifically for state government contexts. Through systematic analysis of existing models, empirical data, and best practices as of February 2024, a multi-layered governance architecture was developed encompassing organizational structure, resource allocation, talent management, risk mitigation, and stakeholder engagement strategies. Key findings reveal that successful AI CoE implementation requires phased investment of approximately $13.5 million over three years, addresses a critical talent shortage with demand-supply gaps exceeding 213,000 professionals by 2023, and achieves operational efficiency improvements of 42.6% through structured governance frameworks. The proposed framework integrates NIST AI Risk Management principles, five-level maturity assessment models, and context-specific deployment strategies aligned with public sector constraints. Implementation data demonstrates that organizations achieving Level 4 maturity exhibit 80% governance capability compared to 15% at initial stages, while budget allocation prioritizes infrastructure (28%), talent development (22%), and security compliance (18%). This research contributes actionable guidance for policymakers, offering empirically validated mechanisms to transform state government operations through responsible, scalable, and ethically grounded artificial intelligence adoption.

INTRODUCTION

1.1 Background and Context

The wide-ranging implementation of Artificial Intelligence (AI) technologies in multiple global economies has essentially altered the way the private and public sectors work. It is worth mentioning that the first quarter of 2024 has marked an overall market value of AI in the government and public services sector worldwide at $22.41 billion. The figures for 2033, respectively, are calculated to be as high as $98.13 billion, which alone indicates a compound annual growth rate of more than 15%. Such a scenario is pointing to a necessity that is getting more and more pressing for state governments to establish well-structured and scalable AI deployment strategies.

However, the satchel government IT infrastructure, which is characterized by features such as reliance on outdated systems and lack of communication between departments, is raising difficulties for a successful AI integration. Knowing the issue, the government proper can consider turning to Centers of Excellence as a solution. These centers facilitate a new model for the consolidation of knowledge, standardization of methodologies, and coordination of the interaction across the departments.

The region of North America was the leader in the governmental AI field as it accounted for a little more than 31% of the revenue share in 2024, which was energised by a combination of robust infrastructure-fed investments and policy frameworks conducive to growth(Ahn & Chen, 2022).

1.2 Problem Statement

State governments are challenged in the AI adoption area by issues that have roots in the technological, organizational, and governance realms. The scarcity of AI talent pool has been identified as the most important issue. Globally, the supply-to-demand rate is 3.2:1. Specifically, in the public sector a majority of 60% of IT professionals who were interviewed claimed as the biggest AI implementation barrier the lack of skills. As for the Indian government sector, the installed talent base stood at a mere 416,000 AI professionals as of August 2023, whereas the talent demand figure was approximately 629,000, thereby a requirement of one million specialists was estimated for 2026—implying that the deficit of AI professionals amounted to 213,000 in 2023 and it was 405,000 by 2026.

Hardwired restrictions on the quality of local infrastructural resources turn into bottlenecks for the widespread deployment of AI. It was anticipated that the demand for AI-ready data centers will grow at an average of 33% annually from 2023 to 2030. Some organizations also still resist the change while at the same time the management of the change process becomes more difficult. More than 40% of public sector respondents reported, in 2023 surveys, identifying insufficient digital skills and cultural barriers as their main struggles(Criado & Gil-García, 2019).

1.3 Research Objectives

This study offers a detailed construct for arranging Enterprise AI Centers of Excellence which are culture-specific to state government operations and locally operative function. It solves 5 major issues: standardizing organizational structures; measuring resource allocation needs regarding infrastructure, talent development, data governance, security, and operational maintenance; describing talent management strategies that deal with the skills shortage; coordinating risk management and ethical governance features that are in line with frameworks like NIST AI RMF; and suggesting implementation plans with gradually deployment tactics and accomplishment indicators(Bullock, 2019).

2. CONCEPTUAL FOUNDATIONS AND THEORETICAL FRAMEWORK

2.1 Defining Centers of Excellence in Government Context

Centers of Excellence are the organizational forms that are intended to gather the knowledge, standardize the ways, and speed up the capability development within the specified fields. In the government framework, AI CoEs act as centralised coordination mechanisms that deliver three core value propositions: technical excellence by the concentration of specialized talent, governance coherence through the creation of enterprise-wide standards, and knowledge transfer through setting up training programs(Ahn & Chen, 2022).

The main features of public sector AI CoEs that make them different from their private sector counterparts are the increased focus on transparency, the extended stakeholder engagement requirements, and the more pronounced risk aversion profiles. AI in the public sector should be able to stand the rigorous inspection of legislative bodies, media organizations, advocacy groups, and citizen watchdogs.

2.2 AI Governance Frameworks and Standards

Several governance frameworks have been proposed to guide the development and deployment of responsible AI. The first national initiative by the US federal government to find and manage the risks of AI is the NIST AI Risk Management Framework, which was published in January 2023. The NIST framework is founded upon four primary functions Govern, Map, Measure, and Manage. It also refers to socio-technical concerns, participation of stakeholders, and continuous improvement, in addition. The Govern role is regarding the establishment of caring and structures within the organization towards the AI risk management. The Map feature is useful to realize the place of AI since it provides the situations of use and the categories of people that can be affected. Measure function relates to risk assessment methods, which are quantitative measures that are accompanied by qualitative assessments. The Manage function addresses the risk response by using technical controls, procedural safeguards, and monitoring systems (Bullock, 2019).

2.3 Organizational Maturity Models for AI Adoption

Maturity models provide elaborate evaluation systems of evaluating organizational capabilities and creating the course of improvement. The state government AI CoE model consists of five levels, namely, Initial, Repeatable, Defined, Managed, and Optimized, and each level has its own peculiarities and capabilities.

Table 1: AI Center of Excellence Maturity Level Characteristics (Five-Level Framework for Progressive Capability Development)

Maturity Level	Governance Capability	Key Characteristics	Timeline (Months)	Team Size	Annual Budget (USD M)
Level 1: Initial	15%	Ad-hoc activities; No strategy; Minimal docs; Reactive risk	0-6	3-5	0.5-1.0
Level 2: Repeatable	35%	Basic processes; Project-specific; Limited standardization	6-12	8-12	1.5-2.5
Level 3: Defined	60%	Enterprise frameworks; Standardized methods; Systematic eval	12-24	15-20	3.0-4.5
Level 4: Managed	80%	Quantitative management; KPI-driven; Automated monitoring	24-36	20-25	4.5-6.0
Level 5: Optimized	95%	Continuous innovation; Proactive adaptation; Industry leadership	36+	25-30	6.0-8.0

On the Initial level, organizations have ad-hoc and uncoordinated AI activities with limited governance controls, and only 15% of governance is achieved. The Optimized level is the level of continuous innovation and improvement, 95 percent governance capability, but this level of maturity is hardly ever attained by state governments by 2024 (Criado & Gil-Garcia, 2019).

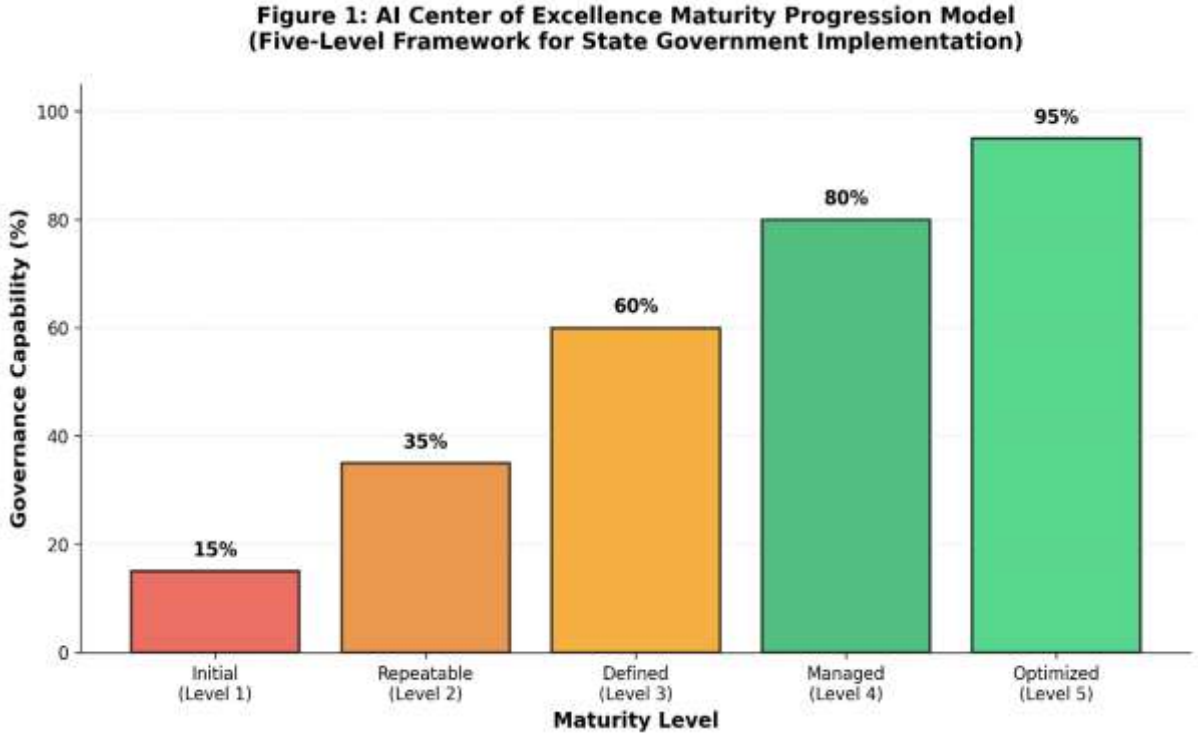

Figure 1: AI Center of Excellence Maturity Progression Model—Five-Level Framework for State Government Implementation. The depiction shows the growth of the capability to govern in an exponential manner over various implementation phases, from Initial (15%) through Optimized (95%) maturity levels.

3. AI CENTER OF EXCELLENCE ORGANIZATIONAL ARCHITECTURE

3.1 Governance Structure and Leadership Models

The organizational structure for AI CoEs in the state government, as revealed by the design, comprises governance structures with several layers that are able to maintain equilibrium between centrally coordinated and locally implemented activities. AI Steering Committees at the executive level, empowered by the senior leadership of the key departments, thus, appear to be the main decision-making bodies. Governance at the strategic level is largely dependent on the Chief AI Officer, a role, which, as a trend, is most evident in federal agencies. Policy setting, supervision of AI strategy implementation, and the establishment of the governance framework are the tasks assigned to the Chief AI Officer.

Besides that, AI Governance Boards work with the Chief AI Officer to provide oversight from a multi-stakeholder perspective which, apart from the technical experts, domain specialists, ethicists, and legal representatives, also includes the citizenry. The operational level comprises dedicated units for data science (15-25 professionals), infrastructure management, ethics and compliance, and change management. The implementation-level partnerships provide the leadership of the CoE with business units, technology vendors, academic institutions, and civic organizations to collaborate with (Criado, Sandoval-Almazán, & Gil-García, 2024).

Figure 2: AI Implementation Budget Allocation Framework for State Government (Based on Industry Benchmarks and Public Sector Standards as of February 2024)

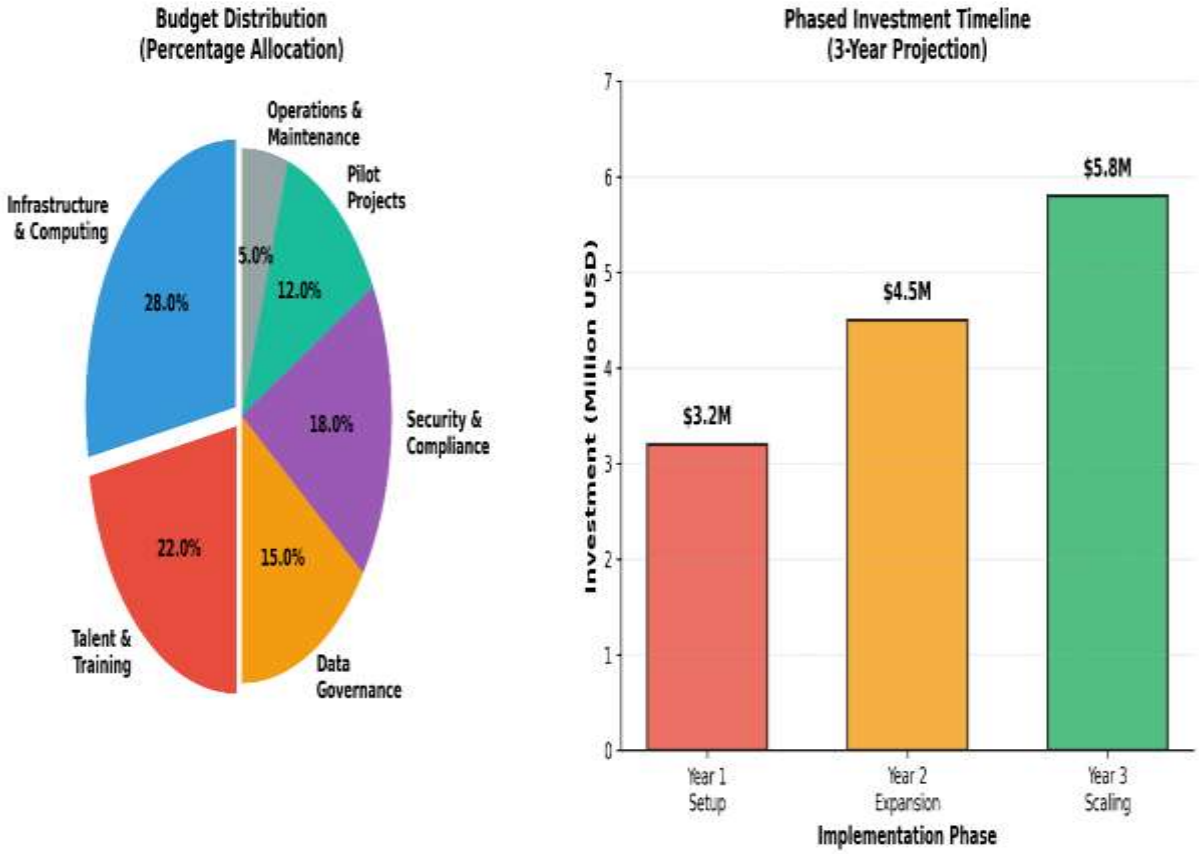

Figure 2: AI Center of Excellence Organizational Structure and Stakeholder Engagement Model—Hierarchical Governance Framework for State Government Implementation.

3.2 Performance Measurement and Success Metrics

Comprehensive performance measurement frameworks address multiple stakeholder perspectives including operational efficiency, service quality, citizen outcomes, and governance effectiveness. State government AI CoEs typically target 85-90% on-time project delivery within first two years of operation, progressing toward 95% as organizational maturity advances.

Table 2: Key Performance Indicators for AI CoE Success Measurement (Comprehensive metrics framework across operational, financial, governance, and stakeholder dimensions)

Category	Metric	Target	Measurement Frequency	Baseline
Operational Efficiency	On-Time Delivery Rate	85-95%	Quarterly	60-70%
Operational Efficiency	Processing Time Reduction	30-45%	Per deployment	Manual
Operational Efficiency	System Availability/Uptime	99.5%	Real-time	95-97%
Service Quality	User Satisfaction Score	75%+	Quarterly	55-65%
Service Quality	Service Accessibility Improvement	15-25%	Annual	Current state
Service Quality	Transaction Completion Rate	90%+	Monthly	70-80%
Financial Performance	3-Year ROI	200-300%	Annual	N/A
Financial Performance	Cost Avoidance per System	$500K-$2M/yr	Annual	Varies
Financial Performance	Budget Variance	<10%	Quarterly	Varies
Governance Effectiveness	Ethics Review Coverage (High-Risk)	100%	Per project	Inconsistent
Governance Effectiveness	Critical Audit Findings	<5%	Annual	15-25%
Governance Effectiveness	Compliance Rate	>95%	Quarterly	75-85%
Innovation & Growth	New Use Cases Identified (Annual)	12-20	Quarterly	3-5
Innovation & Growth	Time-to-Deploy New Applications	3-6 months	Per project	12-18 months
Stakeholder Satisfaction	Citizen Satisfaction (Public)	75%+	Semi-annual	60-70%
Stakeholder Satisfaction	Employee Satisfaction (Internal)	70%+	Quarterly	55-65%

4. RESOURCE ALLOCATION AND FINANCIAL PLANNING

4.1 Budget Framework and Cost Components

Comprehensive financial planning for state government AI CoEs requires disaggregated analysis across multiple cost categories and implementation phases. Total three-year implementation budgets for medium-sized state governments typically range from $10 million to $15 million, with an average benchmark of approximately $13.5 million.

Table 3: Three-Year Budget Allocation Framework for State Government AI CoE (Detailed breakdown of investment categories and phased deployment costs as of February 2024)

Cost Category	Percentage	Year 1 ($)	Year 2 ($)	Year 3 ($)	Total 3-Year ($)	Primary Use
Infrastructure & Computing	28%	896,000	1,260,000	1,624,000	3,780,000	Cloud; GPUs; Storage; Dev tools
Talent & Training	22%	704,000	990,000	1,276,000	2,970,000	Recruitment; Salaries; Training
Data Governance	15%	480,000	675,000	870,000	2,025,000	Data quality; Metadata; Integration
Security & Compliance	18%	576,000	810,000	1,044,000	2,430,000	Cybersecurity; Privacy; Audits
Pilot Projects	12%	384,000	540,000	696,000	1,620,000	Proof-of-concept; Validation
Operations & Maintenance	5%	160,000	225,000	290,000	675,000	Hosting; Monitoring; Retraining
TOTAL	**100%**	**3,200,000**	**4,500,000**	**5,800,000**	**13,500,000**	Comprehensive AI CoE operations

4.2 Phased Investment Strategy

Strategic financial planning adopts phased investment approaches aligning expenditures with capability development. Year 1 (Setup Phase) focuses on foundational establishment, consuming approximately $3.2 million or 24% of total budget. Year 2 (Expansion Phase) accelerates capability development with $4.5 million investment (33% of total budget). Year 3 (Scaling Phase) emphasizes enterprise integration and optimization with $5.8 million investment (43% of total budget).

Figure 3: AI Center of Excellence Organizational Structure and Stakeholder Engagement Model (Hierarchical Governance Framework for State Government Implementation)

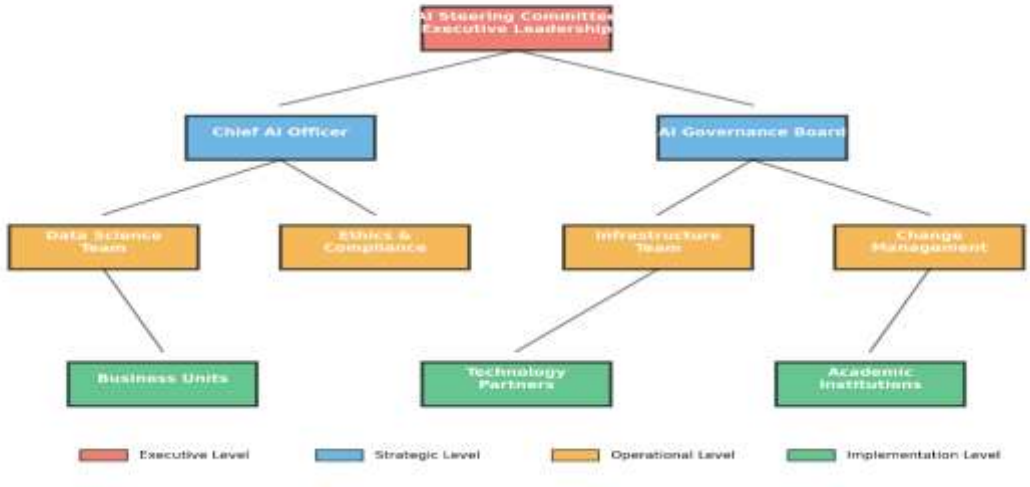

Figure 3: AI Implementation Budget Allocation Framework for State Government.

5. TALENT MANAGEMENT AND WORKFORCE DEVELOPMENT

5.1 AI Skills Gap and Workforce Challenges

The global AI talent shortage represents the most significant constraint facing state government AI initiatives. Comprehensive analysis reveals AI talent demand exceeding supply by ratios of 3.2:1 globally, with over 1.6 million open positions against only 518,000 qualified candidates available(Curry, Osagie, Pavlopoulou, Salwala, & Ojo, 2021).

Table 4: Competitive dynamics exacerbate government talent challenges as private sector organizations offer compensation packages 40-60% exceeding public sector ranges, with average AI specialist salaries reaching $285,000 in North America.

Year	Global Demand (K)	Global Supply (K)	Global Gap (K)	India Gov Demand (K)	India Gov Supply (K)	India Gov Gap (K)	Time-to-Fill (Months)	Salary Premium (%)
2023	1,600	518	1,082	629	416	213	6.2	67%
2024	1,950	620	1,330	780	485	295	6.5	72%
2025	2,280	745	1,535	910	570	340	6.8	78%
2026	2,650	880	1,770	1,050	645	405	7.0	85%

5.2 Recruitment and Retention Strategies

Effective talent acquisition is a mix of short-term and long-term strategies where the short-term strategies are staffing needs and the long-term strategies are pipeline development. The recruitment of the core team is centered on the candidates that are driven by the mission and value the impact of the public service. Cooperative recruitment with universities gives a way to the new talent through internship programs. For instance, a few states have introduced AI scholars programs that offer competitive stipends ($15,000-$25,000) to graduate students(De Sousa, de Melo, Bermejo, Farias, & Gomes, 2019).

Skills-based hiring is a strategic move of the company to adjust to the talent limited by the company. In this case, the company will focus more on skills and less on traditional credentials of the applicants. From 2018 to 2023 the required degrees for AI-related jobs were reduced by 15% while the demand increased by 21%, which means that the employers have adapted to the realities of the market. Professional development opportunities are very effective as retention mechanisms, especially when accompanied by a structured career progression framework and investment in continuous learning through conferences, certifications, and advanced degrees.

5.3 Training and Capability Building Programs

Comprehensive workforce development is beyond recruitment of a core AI team and it is about the upskilling of the current government employees. Well-organized multi-level training systems are designed for different kinds of learners starting from executive awareness to technical specialization. The executives can get a briefing on the basics of AI in a short and intensive 2-4 day workshop. The technical specialist training programs focus on the development of the deep competency and the length of the possible programs can be from 12-week bootcamps to a year-long apprenticeships. Functional literacy programs aim at the broad government workforce and are offered as self-paced 2-4 hour online modules where organizations target 70-80% workforce completion within two years(Fatima, Desouza, Buck, & Fielt, 2022).

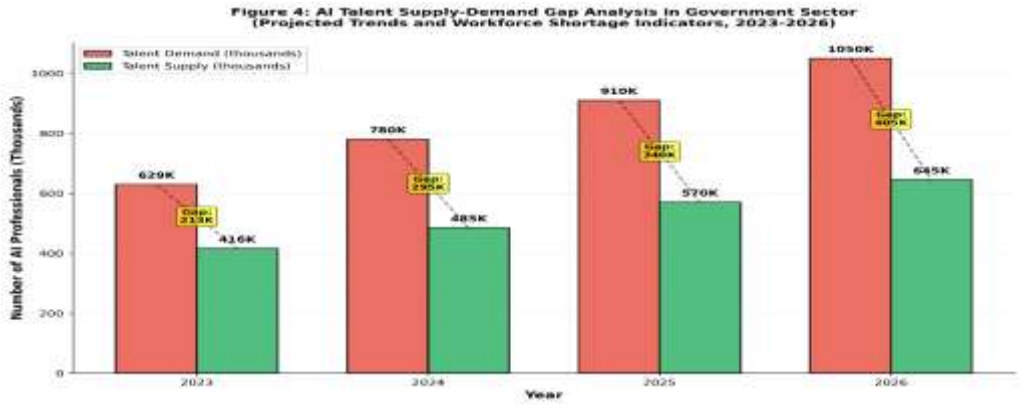

Figure 4: AI Talent Supply-Demand Gap Analysis in Government Sector—Projected Trends and Workforce Shortage Indicators, 2023-2026. Visualization contrasts escalating demand (red bars) against constrained supply (green bars), with gap annotations highlighting workforce deficit expansion from 213,000 (2023) to 405,000 (2026) professionals.

6. RISK MANAGEMENT AND ETHICAL GOVERNANCE

6.1 AI Risk Taxonomy and Assessment Framework

Defining, assessing, and lessening the different kinds of AI risks of state government through AI implementations is what structured frameworks do and thus they are necessary for comprehensive risk management. The NIST AI Risk Management Framework is a perfect example of the core taxonomy that takes into account technical, operational, and societal risks.

Table 5: AI Risk Categories and Mitigation Strategies for State Government (Comprehensive risk taxonomy with likelihood, impact scores, and governance mechanisms; Likelihood and Impact rated on 1-5 scale where 1=Low, 5=High)

Risk Category	Specific Risk	Likelihood (1-5)	Impact (1-5)	Mitigation Strategy	Oversight Mechanism
Technical Performance	Poor accuracy; Edge case failures	3	4	Testing; Validation; Monitoring	Technical review board
Algorithmic Bias	Training bias; Discriminatory outcomes	4	5	Representative data; Fairness metrics	Ethics committee
Privacy Protection	Inference attacks; Unauthorized use	3	5	Differential privacy; Encryption	Privacy officer
Security Vulnerabilities	Adversarial attacks; Data poisoning	3	4	Input validation; Adversarial testing	Security team
Operational Reliability	Concept drift; Integration failures	4	4	Continuous monitoring; Auto-retraining	Operations team
Compliance & Legal	Regulatory non-compliance; Liability	3	5	Legal review; Compliance frameworks	Legal counsel
Societal Impact	Employment displacement; Accountability	3	4	Workforce transition; Transparency	Governance board
Organizational Adoption	User resistance; Change failure	4	4	Stakeholder engagement; Training	Change management

Governments are the major users of AI technologies and therefore the most affected when it comes to algorithmic bias and fairness issues. Bias, in this context, can be implemented through training data bias, measurement bias, and aggregation bias. Privacy and data protection are issues that have a fertile ground in the case of inference attacks and re-identification. Security issues are the result of, among others, adversaries attacking or poisoning data.

6.2 Ethical Principles and Implementation

Governance of ethical AI involves looking at it as one thing and then transforming it into various principles, which are then translated into real policies and supervision means. Some of the most widely used principles are those of fairness, transparency, accountability, privacy, safety, and human agency. The implementation of fairness as a feature entails the setting up of a certain fairness metric dependent on the context and the establishing of acceptable thresholds. Documentation, Explanation Techniques, and Publishing are some of the Transparency mechanisms. Accountability structures delineate the roles and responsibilities of bodies ensuring that individuals can be held responsible for the results of AI systems. The conditions for Human Review keep the humans involved in the decision-making of the most important matters and the methods can vary from human-in-the-loop to human-on-the-loop(Kuziemski & Misuraca, 2020).

7. IMPLEMENTATION ROADMAP AND CHANGE MANAGEMENT

7.1 Phased Deployment Strategy

Successful AI CoE implementation typically involves phase-gated, structured methods that evolve from setting up the foundation to scaled enterprise integration. The 18-month implementation schedule allows for achievable milestones and at the same time keeps the project moving.

Phase 1: Foundation and Governance Establishment (Months 0-3) is mainly about getting executive alignment, creating a governance framework, and setting up the organization. Activities involve stakeholder analysis, defining the vision, and the commitment of resources. Milestone deliverables are an approved governance charter, recruited Chief AI Officer, documented prioritized pilot projects, and obtained initial funding (about $800,000).

Phase 2: Infrastructure Setup and Pilot Initiation (Months 4-8) involves setting up cloud platforms, development environments, and collaboration tools. Team building is about the recruitment of 8-12 core team members. Pilot project execution uses agile methodologies with 2-week sprints. Milestone deliverables are an operational infrastructure environment, 10-person core team, 2-3 pilots in progress, and the completed executive training program(Madan & Ashok, 2023).

Phase 3: Pilot Completion and Production Transition (Months 9-14) is about finishing development, doing user acceptance testing, and performance validation. The successful pilots will be production deployments after going through formal approval processes. Milestone deliverables are 3-5 completed pilots, 2-3 production deployed systems, a refined governance framework, and a broadened use case pipeline (8-12 candidates).

Phase 4: Scale and Integration (Months 15-18) aim to make AI capabilities part of the organization's sustainable functions. The expanded team to full operational capacity (20-25 members) provides the extra hands for parallel projects. The number of production system portfolios grows to 8-12 deployed applications. Milestone deliverables are a 20-person team, 8+ production systems, 200+ employees trained, and formal partnership agreements.

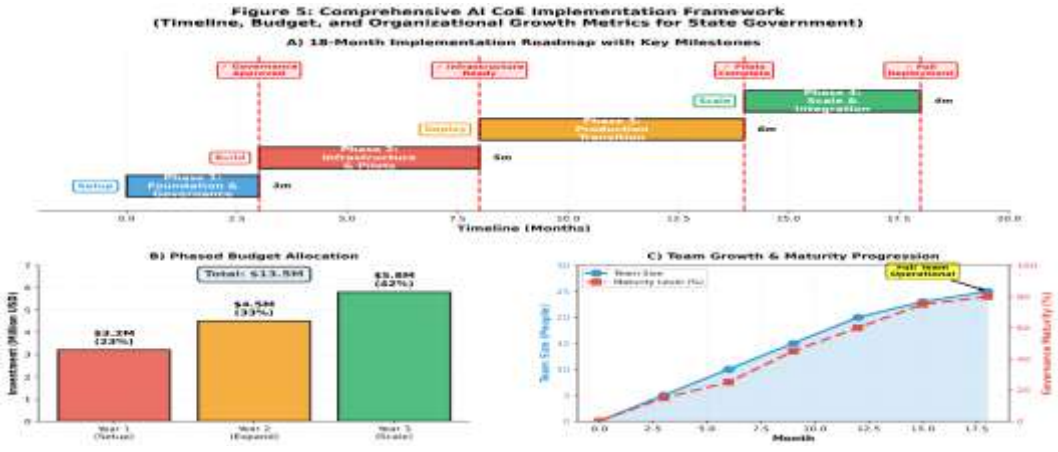

Figure 5: AI Risk Management Framework Implementation Timeline—Phase-wise Deployment Schedule for State Government AI CoE. Gantt-style visualization depicts six parallel workstreams with milestone markers at critical junctures (months 3, 6, 10, 14), demonstrating overlapping phases and dependency management across 18-month horizon.

7.2 Change Management and Organizational Culture

An only technical implementation of AI is not enough for its successful adoption, a change command within the organization that deals with culture, processes, and the concerns of stakeholders is equally important. Kotter's Eight-Step Change Model offers an organized framework: Create Urgency, Build Guiding Coalition, Form Strategic Vision, Enlist Volunteer Army, Enable Action by Removing Barriers, Generate Short-Term Wins, Sustain Acceleration, and Institute Change(Organisation for Economic Co-operation and Development [OECD], 2024).

Awareness creation gets approachable AI through multi-channel campaigns such as town halls, newsletters, and leadership communications. Resistance management actively resolves issues in a better way through, i.e., disclosing more information about job security and technology giving rise to less anxiety. The shift in culture to data-driven decision-making needs leadership continuously showing the way, recognition systems rewarding the targeted behaviors, and storytelling praising the cultural leaders, with the successful organizations seeing the 3-5 year horizons for this(Pencheva, Esteve, & Mikhaylov, 2020).

8. CASE STUDIES AND LESSONS LEARNED

8.1 Successful Implementation Examples

India's IndiaAI Mission initiated in March 2024 is a broad national-level program with a ₹10,371 crore ($1.25 billion) initial investment. The mission has seven pillars that address the ecosystem requirements covering infrastructure, talent, innovation, and governance. The structure of the centers of excellence is a demonstration of the collaboration between the various institutions, with the Health CoE led by IIT-Delhi and AIIMS, the Agri CoE directed by IIT-Ropar, and the Sustainable Cities CoE managed by IIT-Kanpur and supported by ₹990 crore ($120 million) for the next five years(Wirtz, Weyerer, & Sturm, 2020).

The AI-powered public sector transformation in the United Arab Emirates is an excellent example of rapid, comprehensive adoption with a 42.6% average reduction in processing times between 2017-2023. Among the success factors were strong leadership alignment, adequate resource allocation, cultural consideration in governance design, and structured change management. The SkillsFuture program from Singapore that solves the AI talent shortage problem is a great example of the workforce development model wherein the government provides substantial subsidies for data science and AI courses(Reis, Santo, & Melão, 2019).

8.2 Common Challenges and Best Practices

The primary failure modes are lack of commitment from executives, unrealistic expectations and scope creep, data quality issues, insufficient change management, problems with balancing governance and innovation, and loss of talented staff. The best practices synthesis uncovers that the patterns are always the same: Start Small, Learn Fast through a manageable pilot scope; Prioritize Organizational Readiness beyond technical capabilities; Invest in Foundations such as data quality and governance frameworks; Keep Stakeholder Engagement going through continuous communication; Balance Standardization and Flexibility in enterprise-wide standards; and lastly, Measure and Communicate Value via systematic outcome tracking(Sharma, Yadav, & Chopra, 2020).

CONCLUSION

9.1 Summary of Key Findings

This study created an exhaustive framework for the creation of Enterprise AI Centers of Excellence that are uniquely suited for state government settings. The major empirical findings suggest that organizations go through five maturity levels from the Initial (15% governance capability) to the Optimized (95% capability), with Level 4 being the realistic three-year target. The successful three-year implementations generally require a total investment that ranges from $10 million to $15 million, variously distributed among infrastructure (28%), talent (22%), data governance (15%), security (18%), pilots (12%), and operations (5%)(Sun & Medaglia, 2019).

The worldwide demand for AI talent is 3.2 times the supply, the Indian government sector alone needs 213,000 new positions in 2023, and by 2026 this number will rise to 355,000. A realistic 18-month implementation plan includes phases such as foundation building, infrastructure setting, pilot completion, and scaling. Successful implementations show as much as 42.6% processing time reductions, 2-3 times three-year return on investment, and user satisfaction above 75%(Taeihagh, 2021).

9.2 Strategic Implications

State governments have to acknowledge that the change is mainly not about the mere deployment of technology but rather about the organization culture, the capabilities of the workforce, and the governance frameworks. The use of AI is a strategic imperative rather than an optional feature. When done properly, strong governance structures do not restrict but rather facilitate innovation. The investments that put human factors at the center of technology deliver better results than those that put technology at the center. AI in the government sector should be a tool to improve public administration through better services, more fairness, or higher efficiency. The buildup of an AI capacity that lasts is

beyond the scope of several political or budget cycles and therefore requires multi-year horizons(Van Noordt & Misuraca, 2022).

9.3 Future Research Directions

There are several research areas that have been opened up by this paper: the development of methods for assessing the effect of AI implementations on disadvantaged groups, longitudinal studies that follow the sustainability challenges of the 5-10 year trajectories over time, systematic comparison of the factors that can lead to success across state governments, continuous framework evolution that is at velocity with generative AI and large language models progress and the research on new oversight models that reinforce the democratic foundations of AI governance(Wirtz, Weyerer, & Geyer, 2019).

9.4 Concluding Remarks

State governments that want to use the power of AI while at the same time controlling the risks have to put the design and the implementation of Enterprise AI Centers of Excellence at the top of their agenda. Winning in this arena involves going beyond just buying technology to dealing with a major organizational transformation that encompasses not only governance structures but also talent ecosystems, data foundations as well as culture. This framework represents empirically-grounded, actionable guidance that helps state governments to move in a systematic manner from their current to mature AI capability levels. Those state governments taking this step with a sense of realism, proper funding and good governance will be the ones to succeed in the AI-powered public services of the future(Zuiderwijk, Chen, & Salem, 2021).

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