



ISSN 23939729

CLAWS

No. **133**

2026

MANEKSHAW PAPER

Comparative Models of National Cognitive Resilience: Institutional Architecture and Strategic Design

Rakesh Kumar Singh

CENTRE FOR LAND WARFARE STUDIES

Field Marshal Sam Hormusji Framji Jamshedji Manekshaw, better known as Sam “Bahadur”, was the 8th Chief of the Army Staff (COAS). It was under his command that the Indian forces achieved a spectacular victory in the Indo-Pakistan War of 1971. Starting from 1932, when he joined the first batch at the Indian Military Academy (IMA), his distinguished military career spanned over four decades and five wars, including World War II. He was the first of only two Field Marshals in the Indian Army. Sam Manekshaw’s contributions to the Indian Army are legendary. He was a soldier’s soldier and a General’s General. He was outspoken and stood by his convictions. He was immensely popular within the Services and among civilians of all ages. Boyish charm, wit and humour were other notable qualities of independent India’s best known soldier. Apart from hardcore military affairs, the Field Marshal took immense interest in strategic studies and national security issues. Owing to this unique blend of qualities, a grateful nation honoured him with the Padma Bhushan and Padma Vibhushan in 1968 and 1972 respectively.



**Field Marshal SHFJ Manekshaw, MC
1914-2008**

CLAWS Occasional Papers are dedicated to the memory of Field Marshal Sam Manekshaw

Comparative Models of National Cognitive Resilience: Institutional Architecture and Strategic Design

Rakesh Kumar Singh



Centre for Land Warfare Studies
New Delhi



Editorial Team : CLAWS

ISSN : 23939729



Centre for Land Warfare Studies
RPSO Complex, Parade Road, Delhi Cantt, New Delhi 110010
Phone +91-11-25691308 Fax: +91-11-25692347
Email: landwarfare@gmail.com, website: www.claws.co.in
CLAWS Army No.33098

The Centre for Land Warfare Studies (CLAWS), New Delhi, is an independent Think Tank dealing with national security and conceptual aspects of land warfare, including conventional & sub-conventional conflicts and terrorism. CLAWS conducts research that is futuristic in outlook and policy-oriented in approach.

CLAWS Vision: To be a premier think tank, to shape strategic thought, foster innovation, and offer actionable insights in the fields of land warfare and conflict resolution.

CLAWS Mission: Our contributions aim to significantly enhance national security, defence policy formulation, professional military education, and promote the attainment of enduring peace.

© 2026, Centre for Land Warfare Studies (CLAWS), New Delhi.

Disclaimer: The contents of this paper are based on the analysis of materials accessed from open sources and are the personal views of the author. The contents, therefore may not be quoted or cited as representing the views or policy of Government of India, or the Ministry of Defence (MoD), or the Centre for Land Warfare Studies.

Published in Bharat by



Sabre & Quill Publishers, New Delhi, India
www.sabreandquill.com/sabreandquill@gmail.com

Contents

• Abstract	5
• Introduction: Cognitive Resilience as Political Architecture	5
• Literature and Theoretical Positioning	8
From Instruments to Architecture.....	8
Hybrid Warfare and Influence Operations	8
Strategic Narratives and Meaning-Making.....	9
Resilience and Crisis Governance	9
Soft Power and Narrative Projection	10
Institutional Theory: Why Structure Matters.....	10
Ideal Types and Comparative Clarity.....	11
Bridging the Gap: From Tools to Architecture	11
• Methodological Approach and Analytical Scope	12
Comparative Logic	13
Case Selection.....	13
Analytical Boundaries.....	14
• A Structural Model of National Cognitive Resilience	15
The Three Structural Dimensions.....	15
1. Authority Configuration in the Cognitive Domain....	15
2. Governance Philosophy of the Information Environment	17
3. Strategic Orientation in Cognitive Contestation.....	17
Deriving the Ideal Type	18
Type I: Centralised Narrative-Control Architecture	18
Type II: Executive-Integrated Whole-of-Government Architecture	18

Type III: Institutional–Multilateral Architecture	19
Type IV: Societal–Distributed Resilience Architecture ..	19
Structural Scope of the Model	19
• Comparative Mapping of National Cognitive Resilience Architectures	20
Type I: Centralised Narrative-Control Architecture.....	20
China and Russia.....	20
Type II : Executive-Integrated Whole-of-Government Architecture	21
United States	21
Type III: Institutional–Multilateral Architecture.....	22
NATO.....	22
Type IV: Societal–Distributed Resilience Architecture.....	23
Finland and Estonia	23
Cross-Architectural Patterns.....	24
• Structural Trade-Offs and Institutional Implications.....	25
1. Speed and Procedural Legitimacy.....	25
2. Narrative Coherence and Pluralistic Adaptability.....	26
3. Control and Trust as Sources of Stability	27
4. Offensive Projection and Defensive Depth	28
5. Elasticity and Structural Drift	28
Comparative Synthesis	29
• Technological Stress-Test: Artificial Intelligence and Architectural Strain.....	29
• Implications for Middle Powers and Emerging Democracies	31
• Conclusion: Architecture, Alignment and the Limits of Cognitive Design.....	33
• Reference.....	35

Comparative Models of National Cognitive Resilience: Institutional Architecture and Strategic Design

Abstract

The intensification of disinformation, synthetic media and strategic influence operations has positioned the cognitive domain at the centre of contemporary security competition. Existing scholarship, however, focuses largely on instruments rather than institutional design. This article advances a structural framework of National Cognitive Resilience Architecture (NCRA) based on three dimensions: authority configuration, governance philosophy and strategic orientation. By deriving four ideal-type architectures and mapping selected empirical cases, the study demonstrates that cognitive resilience reflects enduring institutional trade-offs rather than uniform best practice. The framework clarifies distinctions between tactical adaptation and structural transformation, offering a comparative lens for assessing national cognitive governance.

Introduction: Cognitive Resilience as Political Architecture

The proliferation of disinformation campaigns, synthetic media, strategic narratives and digitally amplified influence operations has elevated the cognitive domain to a central arena of geopolitical competition. States increasingly confront attempts to manipulate public perception, erode institutional trust, polarise societies, and shape strategic outcomes without crossing conventional military thresholds. In response, governments have

adopted a range of countermeasures—strategic communication units, platform regulation frameworks, media literacy initiatives and interagency coordination mechanisms—under the broad rubric of “cognitive resilience.”

Yet despite the growing policy attention devoted to resilience, the scholarly debate remains fragmented. Existing research tends to focus on discrete instruments—disinformation detection, hybrid warfare tactics, strategic narratives or platform governance—without systematically explaining why states organise cognitive resilience differently. Why do some systems centralise narrative authority while others disperse it? Why do certain states privilege procedural legitimacy over rapid response? Why is resilience in some contexts anchored in civic participation, while in others it is institutionalised within hierarchical security systems? The central question guiding this study is: how do different political systems structure cognitive resilience and what architectural logics underpin these variations?

This article advances a structural explanation. It argues that national approaches to cognitive resilience are not simply reactive policy choices or technological adaptations. Rather, they are expressions of deeper political architectures. The way a state organises authority, conceptualises the information environment, and orients itself strategically conditions how it structures cognitive defence and projection.

To capture this variation, the article introduces a three-dimensional model of National Cognitive Resilience Architecture (NCRA). The model identifies:

- (1) Authority configuration in the cognitive domain;
- (2) Governance philosophy of the information environment;
and
- (3) Strategic orientation in cognitive contestation.

By analytically combining these dimensions, four ideal-type architectures are derived: Centralised Narrative-Control, Executive-Integrated Whole-of-Government, Institutional-Multilateral and Societal-Distributed Resilience. These are not literal descriptions of real-world states, but structured reference frameworks designed to bring out distinct organising principles.

Comparing actual cases against these reference models shows that variation in cognitive resilience reflects different institutional priorities, rather than one standard model of best practice. Each architecture privileges certain structural advantages—speed, coherence, legitimacy, adaptability or societal trust—while accepting corresponding vulnerabilities. Crucially, the model distinguishes between tactical adjustments, regulatory drift and genuine architectural transformation, thereby clarifying debates about regime evolution in the cognitive era.

The central claim of this article is that cognitive resilience is best understood not as a technical capability but as a structural property of political systems. Whole-of-nation strategies in the cognitive domain must align with underlying authority configurations and governance philosophies if they are to be sustainable. Strategy, in this context, follows structure.

By situating cognitive resilience within comparative political architecture, this article contributes to the growing literature on hybrid conflict, strategic competition and national security governance. It offers a framework capable of accommodating diverse regime types while avoiding normative hierarchy. In doing so, it provides a foundation for more structurally grounded assessments of national cognitive design in an era of persistent informational contestation.

Literature and Theoretical Positioning

From Instruments to Architecture

The rise of the cognitive domain as a central arena of strategic competition has generated a substantial body of scholarship across multiple fields. Analysts of hybrid warfare, strategic narratives, disinformation and resilience have significantly advanced understanding of how states influence perception and how societies respond to informational pressure. Yet much of this literature remains focused on instruments and tactics rather than on the institutional structures that organise national responses. What remains under-explored is why states institutionalise cognitive resilience in different ways.

Hybrid Warfare and Influence Operations

Frank Hoffman's concept of hybrid warfare marked a decisive shift in strategic thinking by demonstrating that contemporary conflict blends conventional force, irregular tactics, cyber operations, and information campaigns.¹ Information is no longer auxiliary to military power; it is integral to strategy. Subsequent research has expanded this insight, examining grey-zone competition and the use of influence operations below the threshold of open war.

Similarly, Thomas Rid's work on "active measures" highlights the long history of disinformation and covert influence operations.² Rid's research reminds us that informational manipulation predates the digital era, even if technology has amplified its reach and speed.

Together, these studies show how cognitive tools are used in strategic competition. However, they primarily examine how influence is exercised. They do not fully address how political systems structure their internal response to such pressures. Hybrid

warfare explains the blending of tools; it does not explain variation in institutional design.

Strategic Narratives and Meaning-Making

The scholarship on strategic narratives, particularly by Miskimmon, O’Loughlin and Roselle, shifts attention from instruments to interpretation.³ Their framework distinguishes between system narratives (how the world works), identity narratives (who “we” are) and issue narratives (what a specific event means). This work demonstrates that power in international politics is not only material but also interpretive.

Strategic narrative theory clarifies why the cognitive domain matters. It explains how states attempt to shape domestic and international perceptions. Yet it largely concentrates on communicative content and audience reception. It does not systematically examine how authority over narrative production and regulation is organised within different political systems. In other words, it explains storytelling but not the institutional structure of storytellers.

Resilience and Crisis Governance

Parallel to these developments, resilience has become a central concept in European and transatlantic security thinking. The European Union defines resilience as the capacity of societies and institutions to withstand and recover from shocks, including disinformation and hybrid threats.⁴ NATO has similarly incorporated resilience into its strategic doctrine, emphasising societal preparedness and institutional robustness.⁵

The work of Boin and ‘t Hart on crisis governance provides an important bridge between resilience and institutional design.⁶ They argue that effective crisis response depends on clarity of authority, coordination mechanisms, and public legitimacy. Their insight

suggests that resilience is not only a societal attribute but also a function of political organisation.

Yet resilience literature often focuses on policy tools—media literacy programmes, counter-disinformation units and interagency coordination mechanisms—without systematically comparing how these tools are embedded within different authority structures.

Soft Power and Narrative Projection

Joseph Nye’s concept of soft power further reinforces the importance of narratives and legitimacy in international relations.⁷ Soft power rests on attraction and persuasion rather than coercion. In the cognitive domain, this translates into the capacity to shape preferences through credibility and normative appeal.

While soft power scholarship illuminates external influence capacity, it does not fully address how domestic institutional arrangements condition the production and projection of such narratives.

Institutional Theory: Why Structure Matters

To understand variation in cognitive governance, it is necessary to move beyond instruments and toward institutions. Institutional theory provides this lens. Hall and Taylor’s work on new institutionalism emphasises that political outcomes are shaped by enduring arrangements of authority and norms.⁸ Douglass North similarly argues that institutions—the “rules of the game”—structure behaviour and constrain policy choices.⁹

From this perspective, states do not design cognitive resilience strategies in isolation. They adapt to new threats within institutional parameters defined by authority distribution, legal traditions and governance philosophy. A system with highly

centralised authority will organise cognitive governance differently from a federal or consensus-based system.

Kathleen Thelen's research on institutional change further clarifies that transformation is often gradual.¹⁰ Institutions evolve through incremental shifts rather than abrupt redesign. This insight is particularly relevant when distinguishing between temporary crisis measures and bigger architectural change in the cognitive domain.

Ideal Types and Comparative Clarity

The analytical framework developed in this article draws on Max Weber's method of ideal types. Ideal types are simplified conceptual models designed to highlight dominant structural features.¹¹ They are not meant to replicate empirical reality but to provide clarity for comparison.

By separating authority configuration, governance philosophy and strategic orientation, the framework avoids reducing cognitive posture to regime type alone. Democracies and non-democracies may adopt defensive or offensive strategies. Centralisation and pluralism exist along a spectrum. Ideal types allow structured comparison without collapsing these variations into binary categories.

Bridging the Gap: From Tools to Architecture

The existing literature makes clear that cognitive competition is real, that narratives matter, and that resilience is essential. However, these strands of scholarship often proceed in parallel. Hybrid warfare research emphasises operational blending. Narrative theory emphasises meaning. Resilience scholarship emphasises capacity. Institutional theory emphasises structure.

What is missing is a framework that integrates these insights by focusing on political architecture. This article addresses that gap by shifting the analytical emphasis from instruments to structure. It argues that national cognitive resilience is embedded within broader arrangements of authority and governance. Authority configuration determines who coordinates cognitive strategy; governance philosophy shapes how the information environment is regulated; strategic orientation defines the state's posture in cognitive contestation.

Calls for “whole-of-nation” responses to cognitive threats often assume that institutional models can be transferred across systems. This article argues that such assumptions overlook structural constraints. Cognitive design is conditioned by political architecture. Without alignment between strategy and structure, resilience measures risk incoherence and institutional friction.

By situating cognitive resilience within comparative political architecture, the framework provides a clearer basis for analysing how states organise cognitive governance in an era of persistent informational competition.

Methodological Approach and Analytical Scope

This study adopts a typological and comparative analytical approach. Its objective is not to provide an exhaustive empirical survey of national cognitive policies, nor to evaluate the operational effectiveness of specific counter-disinformation instruments. Instead, the article seeks to clarify the structural logics through which political systems organise cognitive governance.

As noted earlier, this framework uses Weber's idea of “ideal types” as analytical models. These models are not meant to perfectly mirror real countries. Instead, they highlight key structural features so that different systems can be compared more

clearly. In practice, political systems combine elements from multiple models and evolve over time. The purpose of using ideal types here is to make underlying structural differences visible, rather than simply describing policies country by country.

Comparative Logic

The typology developed in this article is applied through a structured comparison of selected empirical cases. The purpose of this comparative mapping is explanatory rather than comprehensive. The intention is not to survey all national approaches to cognitive governance, but to demonstrate how different political systems approximate distinct architectural patterns.

By placing selected cases alongside the ideal types, the analysis illustrates how authority configuration, governance philosophy and strategic orientation combine in practice. Comparative mapping helps clarify how these dimensions interact within real political systems. It also makes visible the structural differences that might otherwise be obscured if analysis focused only on specific policies or crisis episodes.

Importantly, this comparative approach shifts the analytical lens away from short-term performance during individual crises. Instead of asking how well a government managed a particular event, the article asks how authority and governance are organised continuously. The emphasis is therefore on institutional design and structural logic rather than on episodic response.

Case Selection

The cases selected—China, Russia, the United States, NATO, Finland and Estonia—were chosen because together they illustrate meaningful variation across the three dimensions identified in this framework.

China and Russia provide examples of systems in which authority over the information domain is more centralised, though they differ in strategic orientation and external posture. The United States represents an executive-integrated system operating within a pluralistic constitutional order. NATO illustrates how cognitive governance functions within an institutional-multilateral structure at the alliance level, where authority is distributed across sovereign member states. Finland and Estonia are included as examples of systems in which resilience is deeply embedded in civic education, media literacy and societal preparedness.

These cases are not presented as exhaustive categories, nor as fixed or mutually exclusive classifications. Rather, they serve as analytically useful reference points. Together, they demonstrate the range of structural variation that exists across regime types, geopolitical positions and institutional traditions. The goal is to illuminate patterns, not to produce a complete global inventory. The cases are used to illustrate structural patterns rather than to test causal hypotheses.

Analytical Boundaries

This article does not seek to rank political systems or judge them according to normative criteria. It does not prescribe specific reforms, nor does it attempt to measure resilience capacity quantitatively. Likewise, it does not assess the short-term effectiveness of particular policies or communication strategies.

The purpose of the analysis is structural clarification. It aims to provide a comparative framework through which national cognitive resilience strategies can be examined for internal coherence and alignment with underlying political architecture. By distinguishing between authority configuration, governance philosophy, and strategic orientation, the article offers a tool for structured evaluation rather than operational guidance.

With the methodological foundations and analytical scope established, the next section develops the three-dimensional conceptual model that forms the basis of the typology.

A Structural Model of National Cognitive Resilience

The growing importance of the cognitive domain has generated substantial research on disinformation, hybrid tactics and strategic communication. Yet much of this work remains focused on threats and policy tools. It documents how influence campaigns operate and how governments respond, but offers less clarity on why states organise cognitive governance differently in the first place.

This article argues that variation in national cognitive resilience reflects deeper political structure rather than merely threat perception or technological capacity. States respond to cognitive-domain pressures through institutional arrangements that are shaped by how authority is distributed, how the information environment is understood and what strategic posture is adopted. Cognitive resilience is therefore not simply a collection of instruments; it is embedded in political architecture.

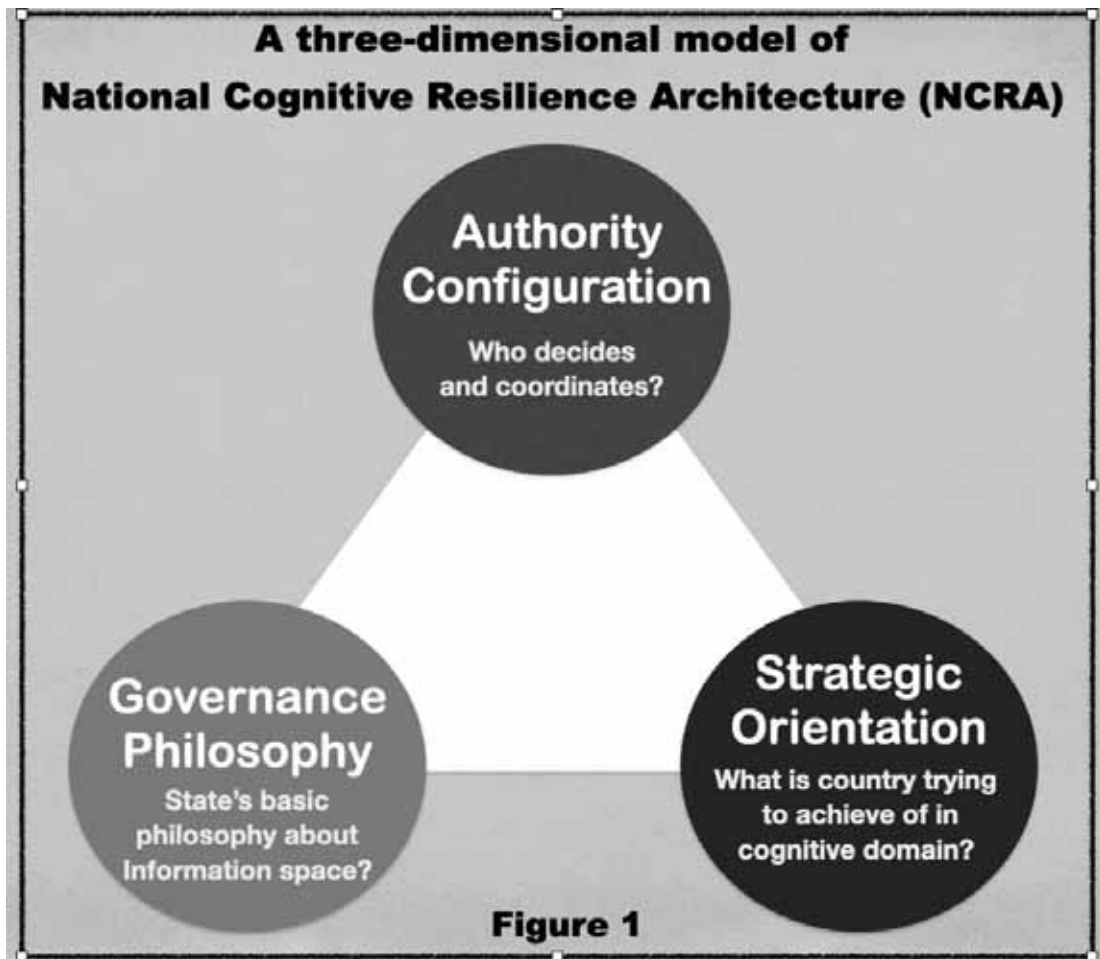
To capture this systematically, the article develops a three-dimensional model of National Cognitive Resilience Architecture (NCRA) (refer Figure 1). The model identifies the structural factors that shape how states coordinate, regulate and strategically employ cognitive capabilities.

The Three Structural Dimensions

1. Authority Configuration in the Cognitive Domain

Authority configuration refers to how decision-making power over cognitive governance is institutionally organised. It identifies where the coordinating authority resides and how vertically

integrated cognitive functions are across political, regulatory, military and administrative institutions.



Authority may take different forms. In some systems, it is centralised and hierarchically consolidated within core executive or party structures. In others, it is executive-integrated but constitutionally bounded by judicial oversight, federal arrangements or legislative scrutiny. In multilateral settings, authority may be distributed across sovereign or semi-sovereign actors, requiring rule-bound coordination. In still other systems, significant resilience functions are diffused into societal networks, with the state acting primarily as facilitator rather than controller.

This dimension determines the locus of coordination and the structural centre of decision-making in the cognitive domain.

2. Governance Philosophy of the Information Environment

Governance philosophy refers to how the information space is normatively understood and regulated. It reflects the state's underlying assumptions about the relationship between authority, public discourse and stability.

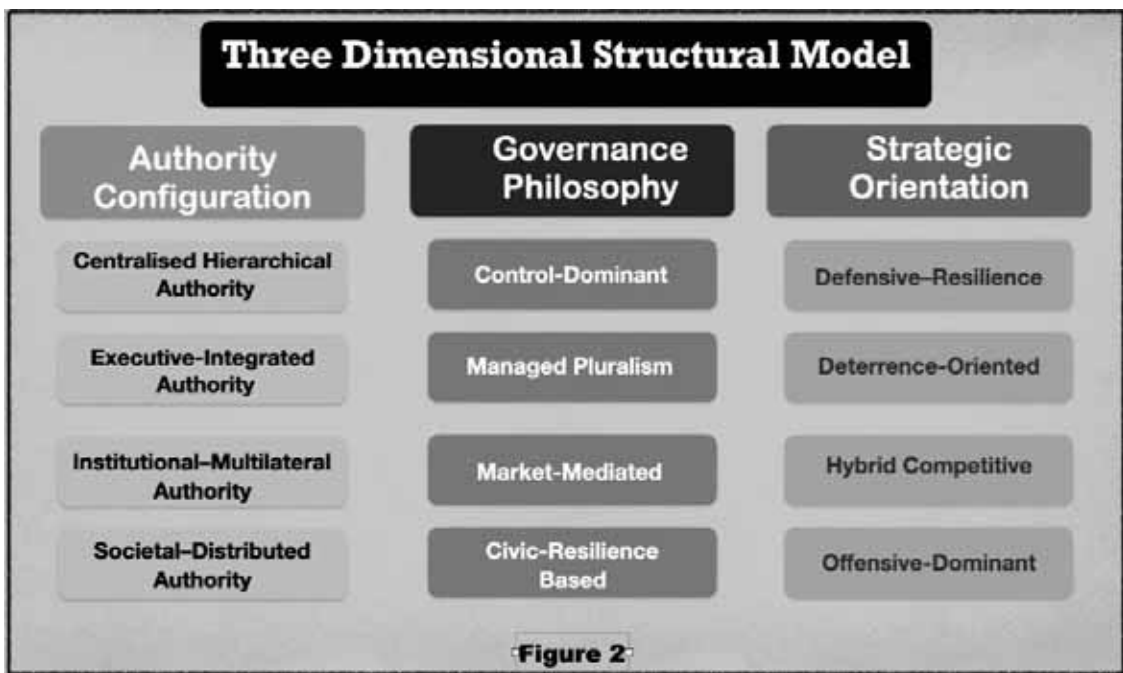
In some systems, the information domain is treated as sovereign space requiring directive regulation and narrative alignment. In others, it is managed through regulated pluralism, where debate is permitted but subject to oversight and institutional safeguards. A further variation treats the information environment as largely market-mediated, with private platforms playing a significant structuring role. Finally, in civic-oriented systems, resilience is embedded in education, media literacy and social trust, with limited reliance on directive control.

This dimension shapes the balance between control and openness, state intervention and societal autonomy (refer Figure 2).

3. Strategic Orientation in Cognitive Contestation

Strategic orientation captures the posture a state adopts in the cognitive domain. It distinguishes between systems that prioritise defensive resilience, those that emphasise deterrence signalling, those engaged in sustained hybrid competition, and those that adopt explicitly offensive cognitive projection.

Strategic orientation is analytically distinct from authority configuration. The same institutional structure may adopt different postures over time without undergoing structural transformation. A shift in strategic rhetoric does not necessarily imply a reorganisation of authority. Architectural change occurs only when authority distribution or governance philosophy is persistently reconfigured.



Deriving the Ideal Type

By combining these three dimensions, four distinct architectural patterns emerge. These are presented as ideal types—analytical models that highlight dominant structural features for comparative clarity. They are not intended to describe any empirical case in pure form, but to provide reference points for analysis.

Type I: Centralised Narrative-Control Architecture

This configuration combines centralised hierarchical authority with a control-oriented governance philosophy. Decision-making over the information domain is vertically integrated and narrative coherence is prioritised over pluralistic contestation. Strategic orientation may vary—defensive or offensive—but authority remains concentrated.

Type II: Executive-Integrated Whole-of-Government Architecture

Here authority is coordinated through strong executive steering within constitutionally dispersed institutions. Governance reflects

managed pluralism: public debate is permitted but subject to regulatory oversight and judicial review. Strategic posture often emphasises defensive resilience while retaining capacity for competitive engagement.

Type III: Institutional–Multilateral Architecture

In this configuration, authority is distributed across multiple institutional actors requiring rule-based coordination and consensus-building. Governance remains pluralistic and procedural. Cognitive resilience emerges from institutional cooperation rather than central command. Strategic orientation tends toward defensive or deterrence-focused postures.

Type IV: Societal–Distributed Resilience Architecture

This model embeds cognitive resilience within society. Educational systems, media literacy initiatives, civil society networks and public trust form the primary absorptive layer. The state acts mainly as enabler rather than central controller. Strategic posture is typically defensive, focused on societal preparedness.

These four types represent dominant structural configurations observable in contemporary practice; the model does not claim exhaustive universality.

Structural Scope of the Model

These four types represent dominant structural logics. Empirical systems rarely conform perfectly to a single model; hybrid characteristics and institutional layering are common. Classification depends on the enduring centre of authority and governance philosophy rather than temporary crisis measures or rhetorical shifts in strategic posture.

The NCRA framework distinguishes between how a political system is organised, how it regulates its information environment,

and what strategic posture it adopts. By separating authority structure, governance philosophy, and strategic orientation, the model allows meaningful comparison across cases without assuming that regime type alone determines cognitive behaviour.

The next section applies this model to selected empirical cases to illustrate how different political systems approximate these architectural patterns.

Comparative Mapping of National Cognitive Resilience Architectures

The four ideal types outlined above provide structured reference models. Empirical political systems rarely conform perfectly to any single type. Instead, they approximate dominant architectural patterns while exhibiting layered or hybrid characteristics. The purpose of this section is illustrative rather than exhaustive: it demonstrates how selected cases align with the typology and clarifies how authority configuration, governance philosophy and strategic orientation interact in practice.

Type I: Centralised Narrative-Control Architecture

China and Russia

China approximates Type I architecture through a highly consolidated authority configuration in the cognitive domain.¹² Decision-making authority over information governance is vertically integrated across party institutions, regulatory bodies, digital platforms and security agencies. Cognitive governance is embedded within broader political authority rather than treated as a discrete policy area.

The governance philosophy reflects a control-oriented approach. The information environment is conceptualised as a sovereign space requiring regulation, filtering and narrative

alignment.¹³ Platform governance and content moderation operate within a system of political supervision. Public discourse is managed through formal regulatory frameworks as well as institutionalised guidance mechanisms.

Strategically, China combines internal defensive-resilience—preserving regime stability and narrative coherence—with calibrated external narrative projection.¹⁴ Cognitive instruments are integrated into diplomatic, economic, and technological statecraft. The architecture itself, however, remains defined primarily by centralised authority and directive governance rather than by posture alone.

Russia also approximates Type I architecture, though with a distinct strategic orientation. Authority over information governance is concentrated and governance philosophy exhibits control-dominant features.¹⁵ However, Russia’s strategic orientation is more explicitly offensive-dominant in external arenas. Cognitive tools are integrated into broader hybrid competition and grey-zone activity, with narrative disruption serving as an instrument of geopolitical leverage.¹⁶

The comparison between China and Russia illustrates an important analytical point: variation in strategic orientation does not automatically generate a different architectural type. Both cases remain structurally centralised, even as their external cognitive strategies diverge.

Type II: Executive-Integrated Whole-of-Government Architecture

United States

The United States approximates Type II architecture. Authority over cognitive governance is neither fully centralised nor widely diffused. Instead, coordination occurs through executive-led

interagency mechanisms operating within constitutional constraints.¹⁷ The federal system, congressional oversight, judicial review and the significant role of private digital platforms shape the authority configuration.

The governance philosophy reflects managed pluralism combined with elements of market mediation. Public debate is protected by constitutional guarantees and private actors retain considerable autonomy in structuring information flows. At the same time, regulatory and legislative mechanisms exist to address foreign interference, disinformation and platform accountability.¹⁸

Strategically, the United States emphasises defensive resilience domestically while engaging in selective competitive narrative activity abroad. Cognitive tools are integrated into broader security doctrine, yet without eliminating institutional dispersion or judicial oversight. The executive plays a coordinating role, but authority remains constitutionally bounded.

The United States thus illustrates how strong executive steering can coexist with pluralistic governance and dispersed institutional power. Its architecture differs structurally from Type I systems despite operating in a similarly contested information environment.

Type III: Institutional–Multilateral Architecture

NATO

NATO represents Type III architecture at the alliance level. Authority in the cognitive domain is distributed across sovereign member states and alliance institutions.¹⁹ Decision-making depends on consensus and rule-bound coordination rather than executive command.

Governance philosophy reflects pluralism across diverse constitutional traditions. Cognitive resilience initiatives—strategic communications coordination, counter-disinformation efforts and resilience planning—are developed collectively and implemented through cooperative mechanisms.²⁰

Strategic orientation within NATO is primarily defensive and deterrence-focused. Emphasis lies on awareness-sharing, resilience-building and coordinated messaging rather than centralised narrative control.

NATO's inclusion demonstrates that cognitive architecture can operate beyond the nation-state. Its structure highlights how authority dispersion and procedural coordination shape cognitive governance differently from both centralised and executive-integrated systems.

Type IV: Societal–Distributed Resilience Architecture

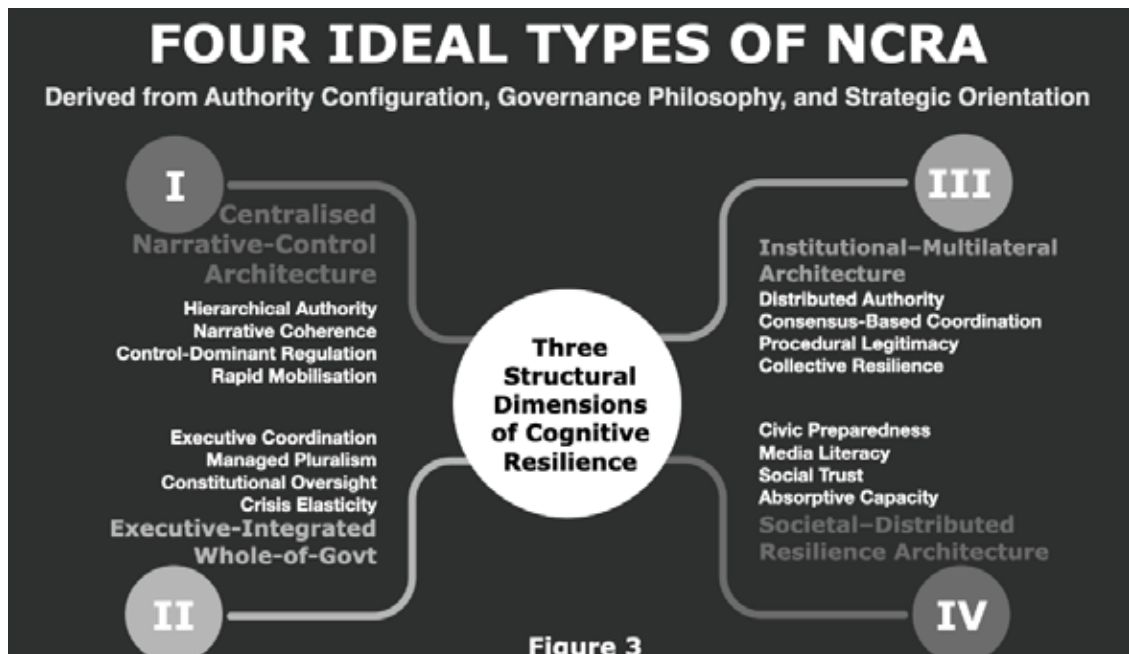
Finland and Estonia

Finland and Estonia approximate Type IV architecture, in which resilience capacity is deeply embedded within society.²¹ Authority configuration retains state involvement, but significant cognitive resilience functions are diffused into educational institutions, media ecosystems, civil society networks and public engagement frameworks.²²

Governance philosophy prioritises civic preparedness and media literacy over directive narrative management. Rather than relying primarily on regulatory control, these systems emphasise social trust, transparency and participatory resilience. Educational curricula, public awareness campaigns and civil society initiatives play central roles.

Strategically, both cases adopt defensive orientations. The focus is on strengthening societal absorptive capacity rather than pursuing sustained offensive narrative projection. Cognitive resilience is treated as a shared societal responsibility rather than a centralised executive function.

These cases illustrate how authority diffusion and civic embedding produce a structurally distinct architecture from both executive-integrated and centralised models (refer Figure 3).



Cross-Architectural Patterns

Comparative mapping reveals that similar threat environments do not produce uniform institutional responses. The United States and Finland both confront disinformation pressures, yet their authority configurations and governance philosophies differ markedly. China and Russia share centralised authority structures but diverge in strategic posture. NATO's multilateral architecture contrasts sharply with executive-integrated systems despite shared democratic commitments.

These variations confirm that cognitive resilience is mediated by embedded authority logics rather than by technological exposure alone. Strategic orientation interacts with authority configuration and governance philosophy, but does not override them.

The typology therefore provides a structured way to distinguish between systems that centralise cognitive authority, those that integrate it within constitutional executive frameworks, those that distribute it across multilateral institutions and those that embed resilience within society. Mapping empirical cases onto these categories clarifies how political architecture shapes national approaches to cognitive governance.

The following section examines the structural trade-offs embedded within each architecture and their implications for strategic design.

Structural Trade-Offs and Institutional Implications

The comparative mapping demonstrates that national cognitive resilience is structured by enduring arrangements of authority and governance. The analytical value of the typology lies not merely in classification but in clarifying the trade-offs embedded within each architectural configuration. No model maximises all desirable attributes simultaneously. Each resolves tensions between speed, legitimacy, coherence, adaptability and trust in distinct ways.

1. Speed and Procedural Legitimacy

Type I systems are structurally optimised for rapid mobilisation. Consolidated authority allows directives to cascade quickly across regulatory and security institutions. In crises, decision latency is minimal. However, this speed is achieved by limiting procedural contestation. Legitimacy derives primarily from hierarchical authority rather than open deliberation.

At the opposite end, Type III arrangements prioritise procedural legitimacy. Consensus-based coordination enhances collective credibility but slows response cycles. In fast-moving cognitive contests, deliberative processes may struggle to match the tempo of information flows. Legitimacy is strengthened, but speed is constrained.

Type II systems occupy an intermediate position. Executive steering allows coordination, yet constitutional safeguards and institutional dispersion introduce friction. The resulting balance can enhance stability, but crisis responsiveness depends on interagency coherence.

Type IV architectures operate differently. Speed is less dependent on command and more on societal preparedness. Where public trust and civic capacity are strong, resilience may emerge organically. However, rapid central coordination is less structurally embedded.

2. Narrative Coherence and Pluralistic Adaptability

Architectures also differ in how they balance narrative coherence with pluralistic adaptability.

Type I systems tend toward high coherence. Unified messaging reduces ambiguity and supports strategic alignment. Yet strong central alignment may limit adaptive flexibility, particularly in rapidly evolving digital environments.

Type II and Type IV systems permit greater contestation. Independent media, private platforms and civic actors generate dynamic information ecosystems. This plurality can foster adaptability and innovation, but may also fragment strategic messaging. Coherence must be negotiated rather than imposed.

Type III systems face an additional complexity: narrative coherence must be constructed across multiple institutional actors with differing political cultures and threat perceptions. Inclusivity may come at the expense of clarity.

The trade-off is therefore structural. Systems that privilege unity often reduce contestation; those that privilege openness must manage fragmentation.

3. Control and Trust as Sources of Stability

Governance philosophy shapes the foundation of stability within each architecture.

In Type I arrangements, stability is pursued through directive regulation and alignment. The state seeks to pre-empt destabilising information flows by asserting authority over the information domain. Resilience is achieved through control.

In Type II systems, stability rests on regulated pluralism. The state intervenes selectively while preserving visible institutional checks. Legitimacy derives from constitutional process rather than from narrative uniformity.

Type IV systems ground resilience in societal trust and civic capacity. Education, media literacy and participatory engagement form the primary buffers against manipulation. Here, resilience is cultivated rather than imposed.

Type III arrangements rely on procedural legitimacy at the collective level. Stability depends on sustained cooperation and institutional trust among participating actors.

Each approach carries vulnerability. Control-heavy systems risk brittleness if central authority falters. Pluralistic systems risk fragmentation if trust declines. Civic models depend on sustained

social cohesion. Multilateral arrangements depend on durable consensus.

4. Offensive Projection and Defensive Depth

Strategic orientation introduces another structural tension: the balance between external projection and internal absorption.

Architectures that integrate offensive cognitive doctrine may develop strong external influence capacity. However, sustained offensive posture can strain domestic legitimacy if governance philosophy remains pluralistic. Tensions may arise between outward competition and inward openness.

Conversely, systems that prioritise defensive resilience may cultivate deep absorptive capacity but lack coordinated instruments for shaping adversarial information environments. The strategic challenge lies in integrating competitive engagement without destabilising domestic governance principles.

Importantly, strategic posture does not redefine architecture. A shift from defensive to competitive orientation becomes structurally significant only if it is accompanied by persistent reconfiguration of authority or governance philosophy.

5. Elasticity and Structural Drift

Finally, architectures differ in their capacity for elasticity. Type II systems, in particular, may temporarily centralise coordination during acute crises while retaining dispersed authority in normal conditions. Such episodic consolidation does not constitute architectural transformation unless authority distribution changes persistently.

Distinguishing between temporary adaptation and structural drift is analytically essential. Tactical adjustments, regulatory shifts

or rhetorical escalation do not alter architecture unless they reallocate authority in enduring ways.

Comparative Synthesis

Taken together, the four architectures institutionalise different resolutions of recurring tensions: speed versus deliberation, coherence versus contestation, control versus trust and projection versus absorption. None eliminates trade-offs; each embeds them within its structural design.

The implication is straightforward. Cognitive resilience strategies cannot be assessed independently of political architecture. Institutional design shapes both the opportunities and constraints within which whole-of-nation approaches operate. Before evaluating effectiveness, one must first understand structure.

These tensions become sharper under conditions of technological acceleration, where the tempo and scale of influence challenge institutional design.

Technological Stress-Test: Artificial Intelligence and Architectural Strain

The rapid diffusion of artificial intelligence, synthetic media generation and algorithmically amplified influence operations introduces systemic stress across all cognitive resilience architectures.²³ AI does not merely increase the volume of disinformation; it alters the tempo, scale and credibility of cognitive contestation. Importantly, these developments do not create a new architectural type. They stress existing configurations differently.

First, AI compresses response timelines. Automated content generation enables influence campaigns to unfold at machine speed, reducing the window for verification and institutional

deliberation. Architectures reliant on procedural consensus or distributed coordination may struggle to match this tempo. The structural tension between speed and legitimacy becomes more acute.

Second, AI multiplies scale. Bot networks, synthetic personas and automated amplification allow relatively small actors to simulate mass consensus. This challenges systems that depend on public discourse as a signal of societal sentiment. Distinguishing organic opinion from engineered amplification becomes increasingly difficult.

Third, synthetic media technologies generate an authenticity crisis. Deepfakes and manipulated audio-visual content erode baseline trust in evidence. Architectures grounded in civic trust (Type IV) face particular strain if citizens lose confidence in the reliability of visual information. Conversely, centralised systems (Type I) may respond through stricter information control, potentially reinforcing directive governance logics.

Fourth, platform governance becomes structurally central. AI-generated content tests moderation systems at scale. In executive-integrated architectures (Type II), the balance between constitutional protections and regulatory intervention becomes increasingly delicate. In multilateral architectures (Type III), coordination on platform regulation may lag behind technological evolution.

Fifth, AI lowers barriers to offensive cognitive strategy. Influence operations can be automated, personalised and continuously adapted. This may incentivise states to expand offensive cognitive doctrine, thereby intensifying the strategic orientation dimension without necessarily altering authority configuration. However, sustained offensive posture can indirectly pressure domestic governance structures.

Sixth, attribution becomes more ambiguous. AI-generated content can be routed through multiple jurisdictions and identities, complicating legal and diplomatic responses. This ambiguity may prompt calls for expanded surveillance or centralised monitoring, potentially triggering structural drift.

Seventh, technological dependence becomes a strategic variable. Control over AI infrastructure, training data and digital platforms increasingly shapes cognitive sovereignty. Architectures reliant on foreign-owned platforms must manage the tension between market openness and regulatory autonomy.

AI therefore, acts as a multiplier of existing structural characteristics. Centralised architectures may leverage rapid regulatory mobilisation but risk rigidity. Executive-integrated systems must balance responsiveness with constitutional safeguards. Multilateral arrangements face increased coordination demands. Societal-distributed models depend on the continued resilience of civic trust under conditions of synthetic manipulation.

Technological acceleration does not eliminate architectural trade-offs. It intensifies them and exposes latent vulnerabilities embedded within institutional design. These technological pressures do not introduce a fourth dimension; rather, they intensify stress within existing authority configurations, governance philosophies and strategic orientations.

These technological pressures are particularly acute for middle powers, whose structural capacities differ from major powers.

Implications for Middle Powers and Emerging Democracies

The typology carries particular relevance for middle powers and emerging democracies operating in an increasingly contested cognitive environment. Unlike major powers, such states often face

resource constraints, technological dependency and geopolitical exposure simultaneously.

Many middle powers approximate executive-integrated architectures combined with managed pluralism. Authority is coordinated through executive institutions but bounded by federal dispersion, judicial review and competitive political processes. This configuration provides legitimacy but introduces coordination complexity under sustained cognitive pressure.

Technological dependency compounds vulnerability. Reliance on globally dominant digital platforms and AI infrastructure limits regulatory leverage. Platform governance decisions may be shaped by external corporate or geopolitical priorities. This raises questions of cognitive sovereignty that centralised powers may address more directly.

Resource constraints further differentiate middle powers from major powers. Intelligence, regulatory capacity and technological investment may be limited relative to the scale of influence operations they confront. As a result, over-reliance on either centralised control or purely societal resilience may prove insufficient.

The temptation to import centralised narrative-control mechanisms during crises is structurally understandable. Rapid mobilisation appears attractive under pressure. However, if such measures are misaligned with constitutional traditions and governance philosophy, they risk eroding institutional legitimacy. Architectural misalignment can generate long-term fragility even if short-term containment succeeds.

Conversely, excessive reliance on civic resilience without sufficient executive coordination may produce fragmentation in

federated systems. Where authority is dispersed across states or provinces, inconsistent responses can undermine coherence.

Middle powers must therefore assess their functional centre of resilience. Is coordination primarily executive-led? Is societal trust the primary buffer? Are multilateral alliances central to their defence posture? Strategic design must align with these structural realities.

Federal democracies face particular complexity. Dispersion of authority enhances legitimacy but complicates rapid action. Crisis elasticity—temporary coordination mechanisms—must be carefully bounded to prevent institutional drift. Sustainable resilience requires clarity about where authority resides and how governance philosophy constrains response.

Middle powers possess structural opportunity precisely because their institutional scale permits hybrid experimentation without full systemic rigidity. Their scale and institutional diversity may permit experimentation with hybrid approaches that combine executive coordination, civic embedding and multilateral cooperation without requiring full centralisation of authority. Rather than replicating great-power models, effective cognitive resilience for such states depends on alignment between strategy and constitutional architecture, governance philosophy and resource capacity. In this sense, resilience is less about emulation and more about structural coherence under conditions of technological acceleration.

Conclusion: Architecture, Alignment and the Limits of Cognitive Design

The intensification of cognitive-domain contestation has prompted states to invest heavily in counter-disinformation mechanisms, strategic communication and resilience initiatives.

Yet policy debates often remain focused on instruments rather than institutional design. This article has argued that cognitive resilience is best understood as a structural property of political systems. Variation in national responses reflects underlying arrangements of authority, governance philosophy and strategic orientation.

By introducing the three-dimensional framework of National Cognitive Resilience Architecture (NCRA), the analysis has demonstrated how authority configuration, information governance and strategic posture interact to produce distinct architectural patterns. The four ideal types derived from these dimensions—Centralised Narrative-Control, Executive-Integrated Whole-of-Government, Institutional–Multilateral and Societal–Distributed architectures—represent alternative structural logics rather than normative hierarchies.

Comparative mapping and trade-off analysis show that no architecture eliminates tension between speed and legitimacy, coherence and pluralism or projection and absorption. Each configuration institutionalises these tensions differently. Technological acceleration, particularly through artificial intelligence and synthetic media, intensifies these embedded trade-offs but does not erase them. Structural design continues to condition strategic possibility.

Two broader implications follow. First, cognitive resilience strategies are path-dependent. Institutional arrangements shape the range of feasible responses and efforts to import external models without regard to architectural compatibility risk internal friction or legitimacy strain. Second, shifts in strategic posture do not necessarily signal structural transformation. Only sustained reconfiguration of authority distribution or governance philosophy alters architectural type.

This study is intentionally typological rather than empirical in measurement. Its purpose has been conceptual clarification: to provide a structured basis for comparative analysis of national cognitive governance. Future research may operationalise indicators of architectural elasticity, examine longitudinal institutional drift or test the framework across additional cases, including middle powers and emerging democracies.

Ultimately, whole-of-nation strategies in the cognitive domain cannot be institutionally neutral. Their feasibility and sustainability depend on alignment with the political architecture within which they operate. In the cognitive era, strategy does not stand apart from structure—it is shaped by it. Understanding how authority is organised, how information is governed and how strategic posture is defined is therefore a prerequisite for evaluating national resilience in conditions of persistent informational contestation.

As cognitive competition becomes continuous rather than episodic, institutional architecture may become as decisive as military capability in shaping strategic outcomes.

Reference

- 1 Frank G. Hoffman, "Hybrid Warfare and Challenges," *Joint Force Quarterly* 52 (2009): 34–39.
- 2 Thomas Rid, *Active Measures: The Secret History of Disinformation and Political Warfare* (New York: Farrar, Straus and Giroux, 2020).
- 3 Alister Miskimmon, Ben O'Loughlin, and Laura Roselle, *Strategic Narratives: Communication Power and the New World Order* (New York: Routledge, 2013).
- 4 European Union, *Shared Vision, Common Action: A Stronger Europe – A Global Strategy for the European Union's Foreign and Security Policy* (Brussels: EEAS, 2016).
- 5 NATO, *NATO 2030: United for a New Era* (Brussels: NATO, 2020).

- 6 Arjen Boin and Paul 't Hart, "Organising for Effective Emergency Management: Lessons from Research," *Australian Journal of Public Administration* 69, no. 4 (2010): 357–371.
- 7 Joseph S. Nye Jr., *Soft Power: The Means to Success in World Politics* (New York: Public Affairs, 2004).
- 8 Peter A. Hall and Rosemary C. R. Taylor, "Political Science and the Three New Institutionalisms," *Political Studies* 44, no. 5 (1996): 936–957.
- 9 Douglass C. North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990).
- 10 Kathleen Thelen, *How Institutions Evolve* (Cambridge: Cambridge University Press, 2004).
- 11 Max Weber, *The Methodology of the Social Sciences*, trans. Edward A. Shils and Henry A. Finch (New York: Free Press, 1949).
- 12 Anne-Marie Brady, *Marketing Dictatorship: Propaganda and Thought Work in Contemporary China* (Lanham: Rowman & Littlefield, 2008).
- 13 Samantha Hoffman, *Engineering Global Consent: The Chinese Communist Party's Data-Driven Governance* (Canberra: ASPI, 2019).
- 14 Elizabeth C. Economy, *The Third Revolution: Xi Jinping and the New Chinese State* (Oxford: Oxford University Press, 2018).
- 15 Keir Giles, *Russia's "New" Tools for Confronting the West* (London: Chatham House, 2016).
- 16 Mark Galeotti, "The 'Gerasimov Doctrine' and Russian Non-Linear War," *In Moscow's Shadows*, 2014.
- 17 United States, *National Security Strategy of the United States* (Washington, DC: White House, 2022).
- 18 Jack Goldsmith, *Power and Constraint: The Accountable Presidency After 9/11* (New York: W.W. Norton, 2012).
- 19 NATO, *Strategic Concept 2022* (Brussels: NATO, 2022).
- 20 NATO Innovation Hub, *Cognitive Warfare* (Norfolk: NATO Allied Command Transformation, 2021).
- 21 European Centre of Excellence for Countering Hybrid Threats, *The Comprehensive Security Model in Finland*, 2019.
- 22 Republic of Estonia, *National Security Concept of Estonia*, 2017.
- 23 NATO Innovation Hub, *Cognitive Warfare*, 2021.

SUBSCRIBE NOW



ISSN 2319-5177

CLAWS JOURNAL

WINTER 2025
VOL. 18, NO. 2

Lt Gen Dushyant Singh
(Editor-in-Chief)

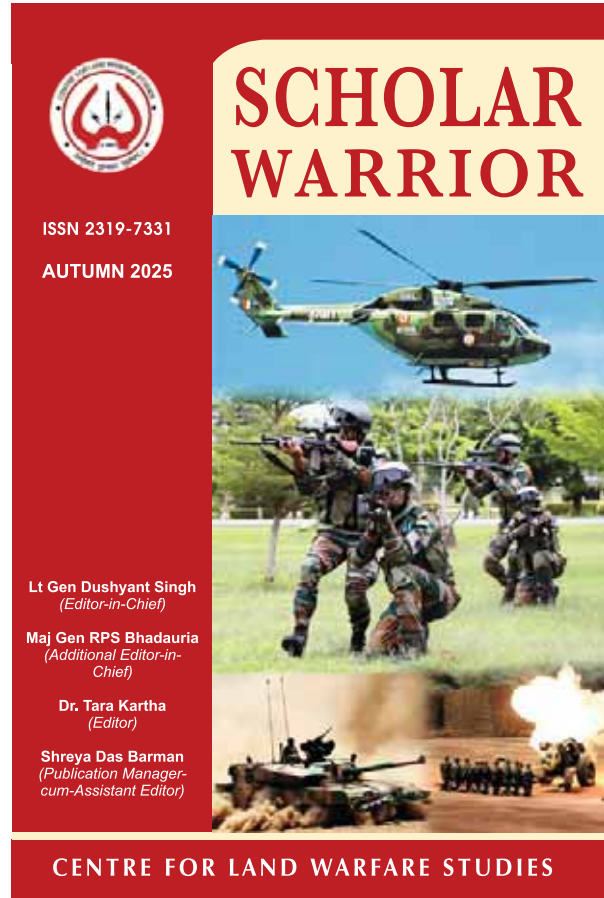
Maj Gen RPS Bhaduria
(Associate Editor-in-Chief)

Dr. Tara Kartha
(Editor)

Shreya Das Barman
(Publication Manager - cum - Assistant Editor)

- India's Multi-Domain Operations Strategy: Navigating Hybrid Threats Through Jointness and Technological Convergence
Indrajeet Bhatnagar
- Civil-Military Fusion: Necessity for Future Conflicts
Vivek Singh
- Skies Under Watch: Ethical and Legal Challenges of AI Based Counter Drone Systems in India and South Asia
Harneet Singh and Anurag Jaiswal
- AI in Countering Cyber Terrorism: Rethinking India's National Security Strategy
Sujeet Pillai, Jitlikar and Kunal Koregaonkar
- The Corps of Signals: Digital Combat Arm of the Indian Army
S.R.R. Aiyengar
- Concept of Non-Contact Warfare
RC Srinath and Prashant Agarwal
- Autonomous Systems and Artificial Intelligence: A Non-Traditional Threat to Humanitarian Security
Uday Pratap Singh and Mayank Saraswat

CENTRE FOR LAND WARFARE STUDIES



ISSN 2319-7331

SCHOLAR WARRIOR

AUTUMN 2025

Lt Gen Dushyant Singh
(Editor-in-Chief)

Maj Gen RPS Bhaduria
(Additional Editor-in-Chief)

Dr. Tara Kartha
(Editor)

Shreya Das Barman
(Publication Manager - cum - Assistant Editor)

CENTRE FOR LAND WARFARE STUDIES

SUBSCRIPTION RATES

IN INDIA

Rs.500/- per copy

Rs.1000/- Annual Subscription (2 issues)

SAARC COUNTRIES

US \$ 15 per copy

OTHER COUNTRIES

US \$ 20 per copy

TO SUBSCRIBE SEND YOUR REQUEST TO



Centre for Land Warfare Studies (CLAWS)
RPSO Complex, Parade Road, Delhi Cantt, New Delhi - 110010

Tel: +91-11-25691308

• Fax: +91-11-25692347 • Army: 33098

E-mail: landwarfare@gmail.com

www.claws.co.in

The growing use of disinformation, synthetic media, and narrative manipulation has transformed the cognitive domain into a central arena of strategic competition. Yet most analyses focus on tools and tactics rather than the deeper institutional structures that shape national responses. This paper advances a structural framework of National Cognitive Resilience Architecture (NCRA), examining how states organise authority, govern the information environment, and orient themselves strategically in cognitive contestation. By deriving four ideal-type architectures and mapping key global examples, the study highlights enduring trade-offs between speed and legitimacy, control and trust, and coherence and pluralism. It further assesses the impact of emerging technologies such as artificial intelligence on these structures. The paper offers a comparative lens to understand how political systems design resilience in an era of persistent informational conflict.

• • •



Colonel Rakesh Kumar Singh is an Infantry officer and an alumnus of the National Defence Academy, Defence Services Staff College and College of Defence Management. He has served in diverse operational environments and held key staff appointments involving information outreach and digital engagement during major operations. Currently a Research Fellow at Savitribai Phule Pune University, he writes regularly and is advancing his work in cognitive domain warfare.



The Centre for Land Warfare Studies (CLAWS), New Delhi, is an independent Think Tank dealing with contemporary issues of national security and conceptual aspects of land warfare, including conventional & sub-conventional conflicts and terrorism. CLAWS conducts research that is futuristic in outlook and policy oriented in approach.

CLAWS Vision: To be a premier think tank, to shape strategic thought, foster innovation, and offer actionable insights in the fields of land warfare and conflict resolution.

CLAWS Mission: Our contributors aim to significantly enhance national security, defence policy formulation, professional military education, and promote the attainment of enduring peace.

Website: www.claws.co.in

Contact us: landwarfare@gmail.com



MRP: ₹ 100.00 US\$ 5.00