IPRPD
International Journal of Business & Management Studies
ISSN 2694-1430 (Print), 2694-1449 (Online)
Volume 06; Issue no 12: December, 2025
DOI: 10.56734/ijbms.v6n12a2

THE DYNAMICS OF PROJECT DEATH: A SYSTEMS PERSPECTIVE ON PROJECT TERMINATION DECISIONS

Ravi Kalluri, PhD, MBA, MS, PMP[1]

[1]*Assistant Teaching Professor, Master of Science in Project Management Program, College of Professional Studies, Northeastern University, San Jose, California, USA.*

Abstract

While project termination is often seen as a rational business decision based on objective performance metrics, this conceptual paper argues that project death results from complex socio-technical dynamics that go beyond traditional cost-benefit analyses. Using systems thinking, organizational politics theory, and socio-technical systems (STS) theory, we develop a comprehensive framework that shows how social, political, and technical factors intertwine to influence project termination decisions. Our analysis suggests that project death is not just an organizational event, but a socio-technical phenomenon shaped by power dynamics, competing stakeholder narratives, emotional investments, and the politics of failure. We identify three interconnected subsystems—the political subsystem (which includes power structures and agendas), the social subsystem (emotional ties and team dynamics), and the technical subsystem (performance metrics and capabilities)—that collectively influence project paths. This framework challenges the dominant rational-economic view of project termination and offers a more detailed understanding of why some failing projects continue while viable ones are cut short. The paper contributes to project management theory by reimagining project termination as an emerging property of socio-technical system dynamics rather than a straightforward managerial decision. This has important implications for how organizations handle project governance and termination protocols.

Keywords

Project Termination, Socio-Technical Systems, Organizational Politics, Project Failure, Escalation of Commitment, Project Governance

1. Introduction

Project termination represents one of the most consequential yet poorly understood phenomena in project management (Havila et al., 2013; Shepherd et al., 2014). Despite decades of research on project success and failure, the mechanisms governing project death remain obscured by a persistent emphasis on rational decision-making models that fail to capture the messy realities of organizational life (Drummond, 2014); project termination is still somewhat unusual for many companies, with projects often seen through to the bitter end against all odds. While normative frameworks prescribe clear termination criteria based on performance metrics, schedule adherence, and budget compliance, empirical evidence reveals a far more complex picture: technically viable projects are killed for political reasons, failing projects persist due to emotional investments, and termination decisions emerge from intricate social negotiations rather than objective assessments (political narratives can portray a misleading escalation of commitment to justify project termination, even when it is not rational; project persistence emerges from a plurality of legitimizing institutional logics that decision-makers draw upon at different project stages).

This conceptual paper challenges the dominant rational-economic paradigm of project termination by proposing a socio-technical systems perspective that recognizes project death as an emergent phenomenon arising from the complex interplay of social, political, and technical factors. We argue that understanding project termination requires moving beyond linear cause-and-effect models to embrace a systems-thinking approach that acknowledges the recursive relationships between human actors, organizational structures, technical artifacts, and political dynamics.

Our theoretical framework draws on three complementary streams of literature: socio-technical systems theory originating from the Tavistock Institute studies (Trist & Bamforth, 1951), organizational politics theory (Pfeffer, 1981), and project failure research. By synthesizing these perspectives, we develop a comprehensive model that explicates how project termination decisions emerge from the dynamic interactions among three interconnected subsystems: the political subsystem encompassing power structures and competing agendas, the social subsystem comprising emotional attachments and team dynamics, and the technical subsystem involving performance metrics and capabilities.

Project failure stems not only from technical and economic factors but significantly from social constraints, yet organizations lack formal termination methods to address these complex dynamics. Project failure generates substantial emotional distress and negative behaviors within teams, particularly in multi-project environments where knowledge and resource management are inadequate. Effective management of project termination requires formal methodologies that acknowledge failure as a legitimate concern, combined with clear ownership structures and enhanced project-ending competencies in project managers. These competencies are crucial for managing both stakeholder relationships and team dynamics during the difficult termination process (Zaitali, 2015).

This reconceptualization has profound implications for both theory and practice. Theoretically, it challenges assumptions about managerial control and rational decision-making in project environments, suggesting instead that project death is often an emergent property of system dynamics that no single actor fully controls. Practically, it suggests that effective project governance requires attention not just to technical performance indicators but also to the social and political currents that ultimately determine project fate.

2. Theoretical Background

2.1 The Limitations of Rational Models of Project Termination

Traditional project management literature has long been dominated by rational-economic models that frame termination as a logical response to objective performance deficiencies (Drummond, 2014). These models, deeply rooted in economic theory and decision sciences, assume that organizational actors behave as rational agents who systematically evaluate alternatives and choose options that maximize expected utility. The rational paradigm manifests in various prescriptive frameworks, including stage-gate processes that establish clear go/no-go decision points, performance thresholds that trigger automatic reviews when projects deviate from baseline metrics, and decision trees that map out logical pathways for termination decisions based on probabilistic outcomes and expected values.

The appeal of these rational models lies in their promise of objectivity and control. They suggest that project termination can be managed through the systematic application of analytical tools and predetermined criteria. Net present value calculations promise to reveal whether continued investment is economically justified. Schedule variance analysis purports to identify when delays have become insurmountable. Technical feasibility assessments claim to determine whether project objectives remain achievable. These tools create an illusion of scientific precision in what is fundamentally an uncertain and ambiguous process. The underlying assumption is that organizations can and should make termination decisions through systematic evaluation of project performance against predetermined criteria, as if projects existed in a vacuum separate from organizational politics, human emotions, and social dynamics.

However, empirical research consistently reveals significant departures from these rational models, suggesting a fundamental disconnect between theory and practice. The phenomenon of escalation of commitment, where decision-makers continue to invest in failing projects despite receiving negative feedback, has been extensively documented across various industries and contexts (Staw, 1976; Drummond, 2014). Recent research indicates that 30–40% of software projects experience escalation of commitment due to their complexity and uncertainty. The intangibility makes it especially hard to understand the actual status of projects. This is not merely a software industry problem, though. Megaprojects in construction, infrastructure, and public services display similar patterns. The Berlin Brandenburg Airport, originally scheduled to open in 2011, finally opened in 2020 after billions in cost overruns, exemplifying how rational political and social forces repeatedly override rational termination criteria.

The explanations for these departures from rationality have developed significantly over the years. While early explanations focused on cognitive biases like the sunk cost fallacy (Arkes & Blumer, 1985), where decision-makers irrationally consider past investments that can't be recovered, later research has uncovered more intricate social and political factors at work. The sunk cost effect, though real, is just the beginning. Recent studies show that organizational politics, involving conflicts between stakeholders, shifting goals, and the influence of private interests, often lead to project failures. For example, traits like extraversion and hubris influence escalation behaviors—extraverted leaders are more likely to pursue sensation through risky projects, and hubris increases this tendency by boosting confidence in eventual success despite mounting evidence to the contrary.

Projects become intertwined with organizational identities, career paths, and power dynamics in ways that make "rational" termination extremely difficult. A project manager's reputation may be so linked to project success that admitting failure feels like professional suicide. Senior leaders who support a project might face political repercussions if they admit to making mistakes. Teams that have dedicated years to a project develop emotional attachments and social ties that go beyond mere financial considerations. Entire departments might depend on a project for their survival, forming strong constituencies that will resist termination regardless of objective performance data. These entanglements create what we can call "termination-resistant structures" that endure even when logical analysis clearly shows project failure.

The limits of rational models are clearer when we examine the changing nature of project evaluation over time. These models usually assume fixed evaluation standards, but in reality, the criteria often change. A project that begins as a plan to install a new IT system may evolve into a larger digital transformation effort. Similarly, a construction project initially justified by economic reasons could gain political importance as a symbol of regional growth. Such changes are normal in organizational life, but rational models lack a framework to understand how evaluation criteria themselves become subjects of negotiation and debate.

Furthermore, the rational model fails to recognize the constructed nature of project "failure" itself, viewing it as an objective state rather than a social achievement. What constitutes failure is often debated, as different stakeholders employ varying criteria and timeframes for evaluation. Different organizational roles (executives vs. project managers) uniquely cluster and weight critical factors influencing project termination, with each group exhibiting distinct levels of sunk cost bias during information gathering and interpretation. The project scale surprisingly shows no relationship to perceptions of failure, indicating that subjective assessments transcend objective project metrics. These role-based perceptual differences have critical implications for project governance, as the initial presentation of information influences outcome perceptions. Surveys of "managers" may yield radically different assessments of success or failure depending on their organizational position (Dilts & Pence, 2006). A project considered a technical success by engineers who deliver sophisticated functionality may be perceived as a market failure by marketing teams that cannot sell the product. Executives might judge the same project successful if it meets strategic objectives beyond its original scope, such as building organizational capabilities or blocking competitive entry. Financial analysts may criticize a project based on return on investment calculations, while human resource managers praise the same project for its team-building effects. These multiple, often conflicting evaluation frameworks indicate that project termination cannot be simply reduced to objective performance assessment but must be understood as a political process of negotiating which criteria matter and whose voices are heard.

The persistence of rational models despite their evident limitations raises important questions. Why do organizations continue to employ frameworks that so poorly predict and explain actual termination decisions? Part of the answer lies in the legitimating function these models serve. Rational models provide a vocabulary and set of procedures that make termination decisions appear objective and defensible. They allow decision-makers to justify difficult choices by appealing to apparently neutral criteria. They create an audit trail that protects against accusations of bias or incompetence. In this sense, rational models may be less about making good decisions than about making decisions that can be defended in organizational and legal contexts.

Furthermore, the limitations of rational models are not merely technical problems that can be solved through better metrics or more sophisticated analysis. They reflect fundamental characteristics of projects as socio-technical phenomena that cannot be reduced to economic calculations. Projects are not just investment vehicles but social systems where people work, learn, compete, and collaborate. They are political arenas where different groups struggle for resources and influence. They are emotional spaces where hopes, fears, anxieties, and aspirations play out. Any model that ignores these dimensions will necessarily fail to capture the full complexity of termination decisions.

This critique does not imply that rational analysis has no place in termination decisions. Financial metrics, schedule tracking, and technical assessments provide important information that should inform decision-making. The problem arises when these tools are treated as sufficient rather than necessary, when they are seen as providing complete rather than partial pictures, when they are used to obscure rather than illuminate the inherently political and social nature of termination decisions. A more complete understanding requires frameworks that integrate rational analysis with appreciation of social dynamics, political processes, and emotional realities.

2.2 Socio-Technical Systems Theory and Project Management

Socio-technical systems (STS) theory offers a more holistic lens for understanding project dynamics, one that transcends the limitations of rational-economic models by recognizing the fundamental interdependence of human and technical elements. Originating from the Tavistock Institute's groundbreaking studies of coal mining operations in the 1950s (Trist & Bamforth, 1951), STS theory emerged from observations that technological changes in mining methods had profound and unexpected effects on social relationships, worker satisfaction, and ultimately productivity. The researchers discovered that optimal performance came not from perfecting either the technical or social system in isolation, but from achieving joint optimization—a principle that remains central to STS thinking today.

The core insight of STS theory is deceptively simple yet radical in its implications: organizational outcomes emerge from the interaction between social and technical subsystems rather than from either system in isolation. This perspective recognizes that technical systems are always embedded within social contexts that shape their implementation and effects. In contrast, social systems are simultaneously structured by the technical artifacts and processes they employ. Technology is not neutral but carries within it assumptions about work organization, skill requirements, and human relationships. Similarly, social systems are not infinitely malleable but must adapt to the constraints and affordances of available technologies. This mutual constitution means that attempts to optimize one system without considering the other are doomed to suboptimal outcomes or outright failure.

Applying STS theory to project management reveals that projects are not just technical tasks aimed at producing specific outputs. Instead, they are socio-technical systems where human actors, organizational frameworks, technologies, and workflows interact and evolve in complex, often unpredictable ways. For example, a software development project involves more than coding; it includes how programming languages and development tools influence team communication, how version control systems shape collaboration styles, how testing frameworks impact the quality practices, and how deployment pipelines organize organizational relationships. The technical system's architecture becomes deeply connected to the social structure of the team, reflecting Conway's Law—that organizations design systems that mirror their own communication patterns.

This socio-technical perspective aligns with recent calls for more processual and practice-based approaches to project management that recognize projects as "becoming" rather than "being." Projects are not static entities with fixed boundaries and predetermined trajectories but dynamic assemblages that continuously evolve through the interactions of their constituent elements. The requirements document is not a fixed contract but a boundary object that different groups interpret and reshape according to their interests and perspectives. The project plan is not a rigid blueprint but a flexible framework that adapts to emerging circumstances and discoveries. The project team is not a stable unit but a fluid network whose composition, relationships, and capabilities change over time.

Particularly relevant for understanding project termination is the concept of socio-technical imbrication, where social and technical elements become progressively entangled over a project's lifecycle. As projects evolve, technical choices shape social relationships and organizational structures, while social dynamics influence technical trajectories. Early decisions about system architecture create dependencies that determine team structures. Team structures, in turn, influence communication patterns that affect design decisions. Design decisions create technical debt that constrains future options. Technical debt generates pressure for workarounds that reshape work practices. Work practices become institutionalized in ways that resist change. This recursive process creates layers of interdependence that make projects increasingly difficult to terminate.

Consider a large-scale enterprise resource planning (ERP) implementation. The choice of ERP platform (technical decision) determines which consultants are hired (social consequence), which influences the implementation methodology adopted (socio-technical choice), which shapes how business processes are redesigned (organizational impact), which affects employee roles and relationships (social restructuring), which creates new information flows (technical architecture), which enables new forms of control and coordination (socio-technical outcome). By the time problems become apparent, the project has created a new socio-technical reality that cannot be easily unwound. Terminating the project would mean not just writing off software licenses and consulting fees but dismantling new organizational structures, abandoning redesigned processes, and dealing with employees whose roles and identities have been significantly altered.

The imbrication process is especially noticeable in digital transformation projects where the lines between technical and social aspects become increasingly blurred. Cloud computing isn't just a technical infrastructure; it's a new way of organizing work that allows for remote collaboration, continuous deployment, and elastic scaling. Artificial intelligence isn't merely an analytical tool; it serves as a decision-making partner that reshapes expertise, authority, and accountability. Blockchain isn't just a distributed ledger; it's a trust mechanism that redefines organizational boundaries and governance structures. These technologies don't simply automate existing processes but fundamentally change the socio-technical systems they are part of.

Recent applications of STS theory in project management have extended these insights in important directions. Studies of agile development projects demonstrate how seemingly technical practices, such as pair programming and continuous integration, are fundamentally social interventions that reshape team dynamics, knowledge sharing, and quality ownership. Research on distributed project teams reveals that collaboration technologies not only connect remote workers but also create new definitions of presence and coordination that challenge traditional notions of teamwork. Investigations of data science projects reveal how algorithms and models embody and reproduce social biases, rendering the separation of technical and social dimensions not only artificial but also potentially harmful.

The STS perspective also illuminates why project problems often resist technical solutions. A project experiencing schedule delays cannot be fixed simply by adding more resources (Brooks' Law) because new team members must be integrated into existing social networks, knowledge structures, and work practices. A project facing quality issues cannot be resolved merely through better testing tools because quality is emergent from social practices of code review, knowledge sharing, and collective ownership. A project struggling with requirements instability cannot be stabilized through better documentation because requirements emerge from ongoing negotiations between diverse stakeholders with evolving understanding and shifting priorities.

Furthermore, STS theory helps explain why successful projects in one context may fail when replicated in another. A project management methodology that works brilliantly in a startup may fail catastrophically in a government agency, not because of implementation errors, but because the socio-technical contexts are fundamentally different. The startup's flat hierarchy, risk tolerance, and innovation culture create affordances for agile methods that don't exist in the bureaucratic structures, risk aversion, and compliance requirements of the government. The technology remains the same, but the socio-technical system differs, resulting in divergent outcomes.

This understanding has profound implications for project termination decisions. From an STS perspective, termination is not simply a matter of stopping work and reallocating resources but of dismantling a socio-technical system that has developed its own logic, momentum, and resistance to change. The decision to terminate must consider not just sunk costs and future benefits but the socio-technical entanglements that make termination difficult and the socio-technical consequences that follow from it. Teams may need to be dissolved, relationships severed, knowledge dispersed, and identities reconstructed. Technologies may need to be decommissioned, interfaces disconnected, data migrated, and dependencies resolved. Organizations may need to be restructured, processes reverted, capabilities abandoned, and strategies revised.

The STS lens also suggests that project failure and success are not properties of the project itself but emerge from the interaction between the project and its socio-technical environment. A project that appears to be failing according to technical metrics may be succeeding in building social capital, organizational capabilities, or strategic options. Conversely, a project that meets all its technical specifications may fail to achieve socio-technical integration, resulting in systems that are technically perfect but organizationally useless. This recognition calls for evaluation frameworks that assess not just technical deliverables but socio-technical outcomes, not just project outputs but systemic impacts.

2.3 The Politics of Project Failure

Organizational politics theory provides crucial insights into how power dynamics shape project trajectories and termination decisions, revealing a hidden landscape of influence, negotiation, and strategic maneuvering that operates beneath the surface of formal project governance. Projects are inherently political entities, serving as arenas where different groups compete for resources, legitimacy, and control. Far from being neutral technical endeavors, projects become battlegrounds where organizational futures are contested, careers are made and destroyed, and power structures are reinforced or challenged. The decision to terminate a project is thus never purely technical but always involves political considerations about winners and losers, reputation effects, and future resource allocations (Pfeffer & Salancik, 1978).

The political nature of projects manifests at multiple levels. At the micro level, project team members engage in political behavior to secure desirable assignments, avoid blame for problems, and claim credit for successes. They form coalitions with colleagues, cultivate relationships with influential stakeholders, and manage impressions through strategic communication. At the meso level, project managers navigate between competing stakeholder demands, broker resources from functional departments, and manage upward to maintain executive support while managing downward to maintain team morale. At the macro level, senior executives use projects as vehicles for strategic change, organizational transformation, and political positioning. They sponsor projects that advance their agendas, terminate projects that threaten their interests, and manipulate project outcomes to support their narratives.

The "politics of failure" represents a particularly important dynamic in project termination. Organizational actors engage in complex "blame games" when projects encounter difficulties, with different groups attempting to control failure narratives to protect their interests. These political maneuvers are not mere side effects of project problems but constitutive elements that shape how problems are defined, interpreted, and addressed. When a project begins to show signs of trouble, stakeholders immediately begin positioning themselves in anticipation of potential failure. Project sponsors may emphasize external factors beyond their control—market changes, technology surprises, or regulatory shifts—to deflect responsibility. Project managers may reframe problems as temporary setbacks requiring additional resources rather than fundamental flaws requiring termination. Team members may emphasize resource constraints and requirement changes to explain performance shortfalls. Vendors may blame client indecision and scope creep for delays and cost overruns.

These political dynamics create what we term "termination resistance fields" that can sustain failing projects long past their rational expiration date. Multiple mechanisms contribute to this resistance. First, the threat of blame creates incentives for cover-ups and misrepresentation. Project status reports become political documents that emphasize progress while minimizing problems. Risk registers understate threats to avoid alarming stakeholders. Budget forecasts employ creative accounting to hide overruns. This political filtering of information means that decision-makers often lack accurate data about project status, making rational termination decisions impossible.

Second, the distribution of termination costs and benefits creates political coalitions that fight to keep projects alive. Those who have invested heavily in a project—whether financially, professionally, or emotionally—form natural alliances to resist termination. A project manager whose career depends on project success will ally with team members whose jobs depend on project continuation and vendors whose revenues depend on project extension. This coalition will mobilize political resources—invoking past successes, promising future breakthroughs, appealing to higher authorities—to keep the project alive. Meanwhile, those who might benefit from termination—competing projects seeking resources, departments bearing project costs without receiving benefits, stakeholders concerned about opportunity costs—may lack the political cohesion or influence to force termination.

Third, projects often serve political functions beyond their stated objectives that make termination politically costly. They may be vehicles for empire-building, with managers using project resources to expand their domains and increase their influence. A large project may justify a bigger team, a larger budget, and greater organizational visibility, benefits that persist regardless of project performance. Projects may also serve as symbols of organizational innovation, demonstrating to employees, customers, investors, or regulators that the organization is progressive, ambitious, or committed to change. Terminating such symbolically important projects sends negative signals that executives may wish to avoid, even when technical performance is poor.

The political value of projects can diverge dramatically from their technical performance, creating situations where politically valuable but technically failing projects continue while technically sound but politically orphaned projects are terminated. Consider a high-profile digital transformation project championed by a new CEO as the centerpiece of their strategic vision. Even as technical problems mount and costs escalate, terminating the project would signal failure of the CEO's leadership and strategy. The political cost of termination—loss of credibility, questions about judgment, potential leadership challenges—may far exceed the financial cost of continuation. Conversely, a technically successful project initiated by a previous administration may be terminated when new leadership arrives, not because of performance problems but because it represents the old regime and competes with new priorities.

The politics of failure attribution shape not only current termination decisions but also future project patterns. Organizations that predominantly blame individuals for project failures create cultures where termination resistance is high because acknowledging failure becomes personally dangerous. Project managers learn to hide problems, extend timelines, and request additional resources rather than admit defeat. This creates a vicious cycle where problems are discovered late, making recovery more difficult and failure more likely, which increases the pressure to hide problems. Organizations that treat failure as systemic learning opportunities enable more adaptive termination practices, but creating such cultures requires overcoming powerful political forces that benefit from blame-based systems.

Power dynamics also influence how project performance is measured and evaluated. Those with greater organizational power can influence which metrics matter, how success is defined, and when evaluation occurs. A powerful sponsor can shift evaluation criteria from efficiency to effectiveness, from short-term costs to long-term benefits, from quantitative metrics to qualitative assessments. They can extend evaluation timeframes to allow problems to be resolved or shorten them to force quick decisions. They can expand project scope to dilute poor performance in original areas or narrow it to focus on successful components. This political construction of evaluation frameworks means that project performance is never simply measured but always politically influenced.

The intersection of formal and informal power structures adds another layer of political complexity. While organization charts show formal reporting relationships and decision rights, informal networks of influence often determine actual decision-making. A project may have formal governance structures—steering committees, project boards, change control boards—but real decisions may be made in informal conversations between influential actors. A technically weak project may survive because its manager has strong informal relationships with key executives. A technically strong project may fail because its manager lacks political capital or violates informal norms. Understanding project politics requires mapping not just formal structures but informal networks of influence, obligation, and exchange.

Recent research reveals how political dynamics in projects are evolving with changing organizational forms and technologies. In matrix organizations, project managers must navigate complex political landscapes where team members report to multiple bosses with potentially conflicting interests. In networked organizations, projects span organizational boundaries, creating inter-organizational politics where different organizations pursue different agendas through the same project. In platform organizations, projects become sites of competition between platform owners seeking control and complementors seeking autonomy. Digital technologies add new political dimensions as algorithms embody political choices about whose interests matter, artificial intelligence systems reproduce political biases in their training data, and surveillance technologies enable new forms of political control.

The COVID-19 pandemic has further exposed and intensified project politics. Remote work has disrupted traditional political channels based on physical proximity and face-to-face interaction, creating new winners and losers in organizational politics. Digital collaboration tools have made some political behaviors more visible (all communications are recorded) while making others less visible (informal conversations are harder to observe). Crisis conditions have justified extraordinary political interventions in projects, with normal governance procedures suspended and decision-making concentrated in crisis committees. Projects that aligned with pandemic responses received unlimited resources while others were summarily terminated, decisions driven more by political symbolism than technical merit.

3. Conceptual Framework: The Socio-Technical System of Project Termination

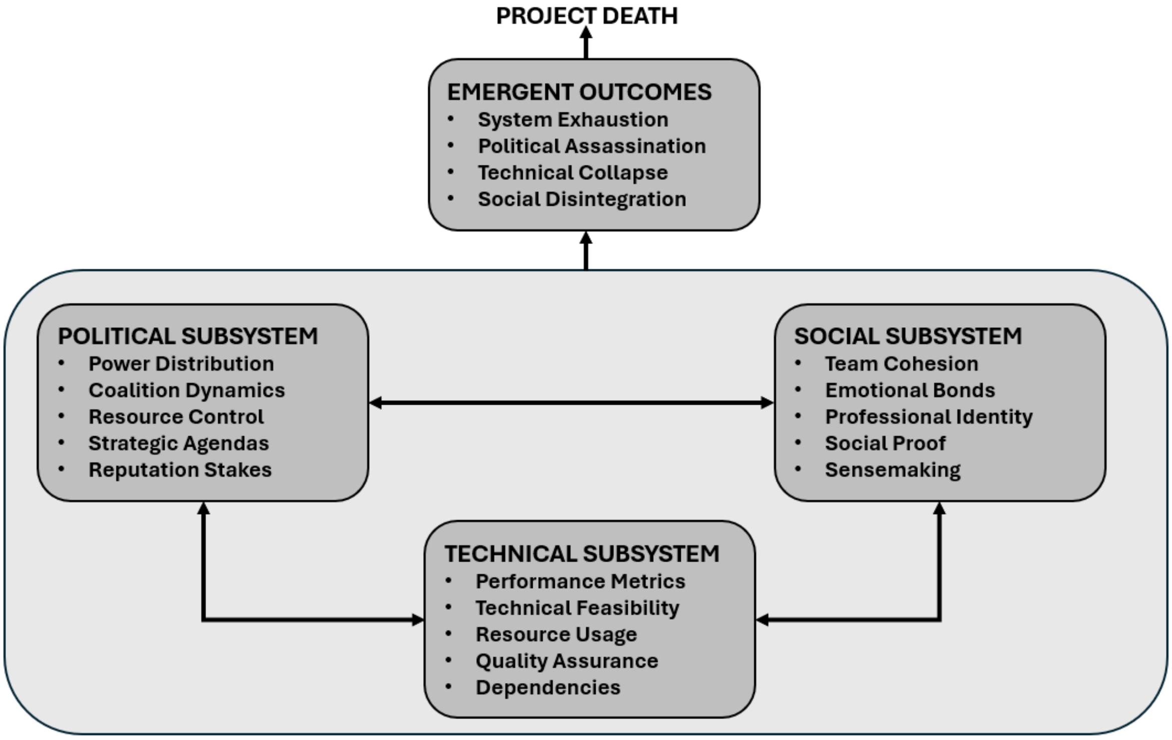

Figure 1. The Socio-Technical System of Project Termination.

3.1 System Architecture

Figure 1 illustrates the main conceptual framework, which outlines the three subsystems and their interrelationships. We conceptualize project termination as emerging from a complex socio-technical system comprising three interconnected subsystems: political, social, and technical. This tripartite framework represents a deliberate analytical separation of elements that are, in practice, deeply intertwined and mutually constitutive. Each subsystem operates according to distinct logics—the political logic of power and influence, the social logic of relationships and meaning, and the technical logic of efficiency and functionality—while simultaneously influencing and being influenced by the others through recursive feedback loops. Project death occurs not through linear causation but through the emergent dynamics of this system as a whole, making termination less a discrete decision point than an emergent system state.

The Political Subsystem encompasses the formal and informal power structures, competing agendas, and strategic considerations that shape project trajectories. This subsystem is characterized by continuous contestation over resources, priorities, and definitions of success. Key elements include:

- **Power distributions among stakeholders**: Projects exist within fields of differential power where stakeholders possess varying capacities to influence project direction and outcomes. This includes formal power derived from organizational position, resource control power based on budget authority, expert power grounded in specialized knowledge, referent power stemming from personal relationships, and coercive power based on the ability to impose sanctions. The distribution of these power forms creates a political topology that shapes whose voices are heard, whose interests prevail, and whose definitions of success matter.
- **Coalition dynamics and alliance patterns**: Political actors rarely operate in isolation, but form coalitions to aggregate power and advance shared interests. These coalitions may be formal (steering committees, governance boards) or informal (lunch groups, email chains), stable or shifting, inclusive or exclusive. Coalition formation follows predictable patterns—those threatened by termination unite in defense, those competing for resources ally to force termination—but also exhibits surprising dynamics as actors switch sides based on changing calculations of interest.

- **Resource control mechanisms**: Control over critical resources—funding, personnel, technology, information—provides political leverage in termination decisions. Those who control resource flows can accelerate or starve projects, shaping their trajectories toward success or failure. Resource control is not just about quantity but also timing (releasing resources when needed or withholding them at critical moments), quality (providing skilled or unskilled personnel), and conditions (attaching strings that constrain project options).
- **Strategic agendas and hidden objectives**: Projects serve multiple agendas beyond their official objectives. They may advance careers, build empires, demonstrate competence, signal commitment, block competitors, or preserve options. These hidden agendas create complex political dynamics where apparent project failure might represent political success (eliminating a rival's initiative) or apparent project success might threaten political interests (empowering competing departments).
- **Reputation stakes and career implications**: Projects become entangled with individual and collective reputations in ways that affect termination dynamics. Project failure may threaten career advancement, professional standing, and future opportunities, creating powerful incentives to avoid termination regardless of project performance. Conversely, association with failed projects may contaminate reputations even for those not responsible, creating incentives to distance oneself through early termination advocacy.

The Social Subsystem comprises the human relationships, emotional investments, and cultural factors that influence project dynamics. This subsystem operates according to logics of belonging, meaning, and identity that often conflict with rational calculation. Core components include:

- **Team cohesion and morale**: Project teams develop their own social dynamics that influence termination resistance. Highly cohesive teams may fight termination to preserve their social bonds, while fragmented teams may lack the collective will to resist. Team morale affects both project performance and termination dynamics—high morale may sustain failing projects through extraordinary effort, while low morale may accelerate decline toward termination.
- **Emotional attachments to project outcomes**: Projects become objects of emotional investment that transcend rational calculation. Team members may develop psychological ownership of projects, experiencing them as extensions of themselves. Years of effort create emotional bonds that make letting go painful. Dreams of what the project might achieve generate hope that sustains continuation despite evidence of failure. Fear of loss, regret over wasted effort, and anxiety about uncertain futures create emotional resistance to termination.
- **Professional identities tied to project success**: For many participants, projects are not just work assignments but identity projects where professional selves are constructed and performed. A software architect's identity may be bound up with the elegant system they're designing. A project manager's sense of competence may depend on delivering successful outcomes. A business analyst's expertise may be validated through requirements they've developed. Termination threatens not just project outcomes but professional identities, creating existential resistance that transcends economic calculation.
- **Social proof and conformity pressures**: Social dynamics create pressures for conformity that affect termination decisions. If influential team members express confidence, others may suppress doubts to avoid appearing negative. If organizational culture celebrates persistence, acknowledging failure becomes socially costly. If peer projects continue despite problems, terminating one's own project appears weak. These social proof mechanisms create herding behaviors where projects continue because other projects continue, independent of individual project merit.
- **Collective sensemaking processes**: Teams engage in collective processes of interpreting project status, attributing causes for problems, and imagining possible futures. These sensemaking processes are inherently social—shaped by group dynamics, power relations, and cultural frames. Teams may collectively construct narratives that explain away problems ("teething troubles"), normalize dysfunction ("all projects have issues"), or maintain hope ("breakthrough is imminent"). These collective narratives create social realities that sustain projects despite objective indicators of failure.

The Technical Subsystem involves the objective performance metrics, technological capabilities, and operational realities of the project. While seemingly the most rational and objective subsystem, technical elements are always interpreted through social and political lenses. This includes:

- **Performance indicators and milestone achievement**: Projects generate streams of performance data—schedule variance, cost performance index, defect rates, velocity metrics—that provide apparently objective indicators of project health. However, these indicators are never self-interpreting but require human judgment about what they mean, whether they're improving, and what they predict about future performance. The same technical metrics can be read as indicating imminent failure or temporary setback, depending on interpretive frames and political interests.
- **Technical feasibility and capability gaps**: Projects confront technical challenges that may prove insurmountable—technologies that don't scale, architectures that can't integrate, algorithms that won't converge. These technical realities create hard constraints on what's possible, but their implications for termination are always mediated by social and political factors. A technical impossibility may be reframed as requiring further research. Capability gaps may justify requesting additional resources. Technical failure may be attributed to implementation rather than conception.
- **Resource utilization and efficiency metrics**: Projects consume resources—person-hours, computing cycles, materials, facilities—generating efficiency metrics that inform termination decisions. Burn rates indicate sustainability, productivity metrics suggest the feasibility of completion, and resource forecasts project future needs. Yet these apparently objective measures are subject to manipulation (creative accounting), interpretation (defining productivity), and contestation (whose resources count).
- **Quality measures and defect rates**: Quality problems provide seemingly objective grounds for termination—systems that crash, products that fail, deliverables that don't meet specifications. However, quality is never absolute but always relative to expectations, standards, and contexts. What counts as acceptable quality is politically negotiated, socially constructed, and technically contingent. The same defect rate may be catastrophic for safety-critical systems or acceptable for experimental prototypes.
- **Integration challenges and dependencies**: Projects exist within webs of technical dependencies—on other systems, external services, third-party components, legacy infrastructure. Integration challenges may create cascading problems that threaten project viability. Yet dependencies also create termination resistance as integrated systems become difficult to disentangle. Technical coupling creates organizational coupling as dependent systems, and their stakeholders resist termination that would affect them.

Table 1 provides a detailed breakdown of each subsystem's components, along with positive indicators of healthy functioning and warning signs of dysfunction that managers should monitor.

Table 1. Theoretical Propositions and Empirical Indicators.

Subsystem	Component	Definition	Positive Indicators	Warning Signs
POLITICAL	Power Distribution	Relative influence of stakeholders	• Balanced stakeholder input • Clear governance	• Power concentration • Excluded stakeholders
	Coalition Dynamics	Alliance patterns among actors	• Stable supportive coalitions • Aligned interests	• Shifting alliances • Opposition mobilization
	Resource Control	Authority over project resources	• Adequate resource flow • Predictable allocation	• Resource starvation • Unpredictable changes
	Strategic Alignment	Fit with organizational strategy	• Clear strategic value • Executive championing	• Strategic drift • Lost relevance
SOCIAL	Team Cohesion	Unity and collaboration level	• High trust • Effective collaboration	• Fragmentation • Conflict escalation

Subsystem	Component	Definition	Positive Indicators	Warning Signs
	Emotional Investment	Psychological ownership and commitment	• Healthy engagement • Balanced perspective	• Over-attachment • Emotional exhaustion
	Professional Identity	Role and expertise validation	• Growth opportunities • Recognition	• Identity threat • Competence questioning
	Collective Sensemaking	Shared interpretation of events	• Realistic assessment • Open dialogue	• Groupthink • Reality distortion
TECHNICAL	Performance Metrics	Objective progress indicators	• On-track delivery • Quality standards met	• Persistent delays • Quality degradation
	Technical Feasibility	Achievability with available technology	• Proven solutions • Clear architecture	• Unproven technology • Architectural flaws
	Resource Efficiency	Input-output relationships	• Improving productivity • Predictable burn rate	• Declining efficiency • Resource overruns
	System Integration	Interdependencies and interfaces	• Clean interfaces • Manageable dependencies	• Integration failures • Cascading dependencies

3.2 System Dynamics and Feedback Loops

The three subsystems interact through multiple feedback loops that can either amplify or dampen termination pressures. We identify several critical dynamics as illustrated in Figure 2:

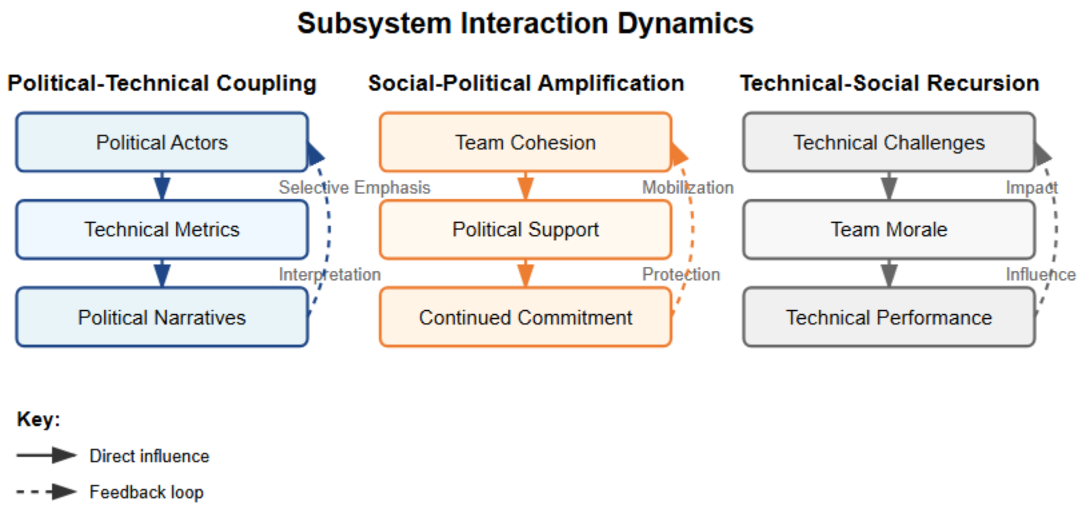

Figure 2. Subsystem Interaction Dynamics.

Political-Technical Coupling (Figure 2, left panel): Political actors selectively emphasize or downplay technical metrics based on their agendas. Sponsors of threatened projects may shift evaluation criteria, extend timelines, or reframe technical challenges as learning opportunities. Conversely, political opponents may amplify minor technical issues to build termination cases. This selective coupling means technical performance never speaks for itself but is always interpreted through political lenses.

Social-Political Amplification (Figure 2, center): Strong team cohesion and emotional investment can mobilize political support for struggling projects. Teams with high morale and strong belief in their project often become effective political advocates, leveraging social capital to secure continued funding. This creates positive feedback loops where social cohesion generates political protection, which in turn reinforces team commitment.

Technical-Social Recursion (Figure 2, right panel): Technical challenges affect team morale and social dynamics, which in turn influence technical performance. Early technical successes foster team confidence and cohesion, ultimately enhancing subsequent performance. Conversely, technical setbacks can trigger social fragmentation and declining morale, creating downward spirals that become self-fulfilling prophecies of failure.

3.3 Emergence of Termination Decisions

Project termination emerges from the complex interplay of forces within this socio-technical system rather than from discrete decision events. We identify four archetypal patterns of project death as summarized in Table 2:

Table 2. The Four Archetypal Patterns of Project Death.

Pattern	Political Subsystem	Social Subsystem	Technical Subsystem	Typical Triggers	Examples
Political Assassination	**Dominant**: Leadership change, strategic pivot, loss of sponsor	**Strong**: High team cohesion, and commitment	**Acceptable**: Meeting requirements, viable solution	• New CEO • Budget reallocation • Strategic shifts	• Government projects after election • Corporate initiatives after merger
Technical Collapse	**Supportive**: Continued backing despite problems	**Committed**: Team believes in project	**Failing**: Insurmountable technical barriers	• Integration failures • Scalability issues • Technology obsolescence	• Complex IT migrations
Social Disintegration	**Neutral**: Political support continues	**Collapsing**: Team burnout, key departures, conflict	**Viable**: Technical solution possible	• Team exhaustion • Leadership vacuum • Interpersonal conflict	• Startups with founder disputes • Long-running projects
System Exhaustion	**Eroding**: Political support evaporates	**Fragmenting**: Team dissolution	**Degrading**: Multiple technical failures	• Cascading failures • Resource depletion • Market changes	• NHS NPfIT • Large infrastructure projects

Political Assassination: Projects with acceptable technical performance and strong social cohesion are terminated due to shifting political winds. Changes in organizational leadership, strategic pivots, or resource reallocation to competing initiatives can doom otherwise viable projects. The technical and social subsystems may resist, but political forces ultimately prevail.

Technical Collapse: Projects experience cascading technical failures that overwhelm political protection and social commitment. While political sponsors and committed teams may initially resist termination, accumulating technical evidence eventually makes continuation untenable. The technical subsystem essentially forces the hand of the other subsystems.

Social Disintegration: Projects suffer from team fragmentation, loss of morale, or withdrawal of key personnel, leading to gradual decline. Even with political support and technical feasibility, the erosion of the social subsystem undermines project viability. These "zombie projects" may formally continue but lack the human energy necessary for meaningful progress.

System Exhaustion: Projects experience simultaneous degradation across all three subsystems, leading to rapid termination. Political support evaporates, teams dissolve, and technical problems multiply in mutually reinforcing cycles. These cases often appear as sudden collapses but result from prolonged system degradation.

4. Theoretical Propositions

Based on our conceptual framework, we advance several theoretical propositions about the socio-technical dynamics of project death. These propositions are not deterministic laws but probabilistic tendencies that manifest differently across contexts while revealing underlying patterns in how projects fail and are terminated.

Proposition 1: Subsystem Misalignment and Non-Linear Termination Risk
Project termination likelihood increases non-linearly with subsystem misalignment. When political, social, and technical subsystems diverge significantly (e.g., strong political support but weak technical performance), system tensions create instabilities that increase termination probability. However, this relationship is non-linear—small misalignments may be absorbed by system resilience, but beyond critical thresholds, termination risk escalates rapidly.

The non-linearity emerges from feedback effects between subsystems. Minor technical problems may be manageable if political support remains strong and team morale is high. Political sponsors can secure additional resources, motivated teams can work around technical limitations, and stakeholders can accept temporary setbacks. However, as misalignment increases, compensatory mechanisms become overwhelmed. Political support erodes as technical problems persist, team morale declines as political pressure mounts, and technical problems multiply as social fragmentation impairs coordination. The system enters a death spiral where subsystem misalignment accelerates toward terminal failure.

Empirical indicators of dangerous misalignment include: technical metrics showing persistent negative trends while political rhetoric remains optimistic; team surveys revealing declining morale while status reports claim progress; political sponsors distancing themselves while project managers maintain confidence. These misalignments signal an impending system breakdown that linear extrapolation from individual indicators would miss.

Proposition 2: Lifecycle Contingent Subsystem Dominance
The dominant subsystem determining project fate varies across organizational contexts and project lifecycle stages. Early-stage projects may be more vulnerable to political forces, while later-stage projects may be more influenced by technical realities, and social factors may dominate during middle stages when team dynamics are most critical.

In project initiation and early stages, political dynamics often dominate because technical systems are embryonic and social systems are forming. Projects exist primarily as political constructs—promises, proposals, and projections—that serve political functions. Termination at this stage usually results from political shifts: loss of sponsor support, strategic reprioritization, or resource reallocation. Technical feasibility may be uncertain, and teams may be temporary, making political factors decisive.

During the middle stages, social dynamics gain prominence as teams solidify, relationships deepen, and collective identities form. The project becomes a social reality with its own culture, norms, and dynamics. Termination resistance peaks as social bonds create collective commitment to continuation. Teams develop shared narratives, mutual obligations, and emotional investments that sustain projects through technical and political challenges.

In later stages, technical realities increasingly constrain options. Accumulated technical debt, architectural decisions, and system interdependencies create path dependencies that limit alternatives. Technical imperatives—working software must be delivered, systems must integrate, performance must meet requirements—override social preferences and political agendas. Termination may become technically inevitable as problems prove insurmountable regardless of political will or social commitment.

These patterns vary by context. In highly political organizations, political dynamics may dominate throughout the lifecycle. In engineering cultures, technical considerations may prevail from the start. In collaborative cultures, social factors may remain decisive even late in projects. Understanding which subsystem dominates when enables more targeted interventions.

Proposition 3: Imbrication-Induced Path Dependency

Project termination resistance increases with the degree of socio-technical imbrication. As social and technical elements become more entangled over time, dismantling projects becomes progressively more difficult, creating path dependencies that sustain failing projects.

Imbrication occurs through multiple mechanisms. Technical architectures shape organizational structures as teams organize around system components. Organizational structures influence technical designs as communication patterns determine integration approaches. Skills developed for specific technologies create human asset specificity that resists redeployment. Technologies encode organizational knowledge that would be lost with termination. Social relationships form around technical collaborations that would dissolve with the project's ending. Technical systems become identity markers for professional communities that would fragment without them.

The depth of imbrication affects the difficulty of termination. Loosely coupled projects where technical components remain modular, teams maintain independence, and political commitments stay tentative can be terminated with limited disruption. Tightly imbricated projects where technical systems are deeply integrated, teams are highly interdependent, and political stakes are existential, become nearly impossible to terminate without organizational trauma.

Path dependency emerges as early choices constrain later options. Initial technology selections determine skill requirements that shape hiring decisions that create team compositions that influence design choices that lock in architectures that require specific technologies. By the time problems become apparent, the cost of unwinding these interdependencies exceeds the cost of continuing despite problems. Projects become trapped in suboptimal trajectories that rational analysis would reject, but path dependency makes inevitable.

Proposition 4: Failure Attribution and Cultural Evolution

The politics of failure attribution shape future project termination patterns. Organizations that predominantly blame individuals for project failures create cultures where termination resistance is high, while those that treat failure as systemic learning opportunities enable more adaptive termination practices.

Blame-oriented cultures create vicious cycles that impair termination decisions. When failure leads to punishment, actors hide problems to avoid blame. Hidden problems prevent early intervention, allowing issues to compound. Compound problems make eventual failure more likely and more damaging. Damaging failures intensify blame, reinforcing hiding behaviors. This cycle makes rational termination impossible as decision-makers lack accurate information and implementers resist actions that might attract blame.

Learning-oriented cultures enable virtuous cycles that improve termination decisions. When failure generates learning rather than punishment, actors surface problems early. Early problem identification enables timely intervention or termination. Timely decisions reduce failure costs and impacts. Reducing negative consequences reinforces learning behaviors. This cycle enables adaptive termination as organizations develop capabilities to recognize and respond to failure signals (Cardella, 2022).

Cultural evolution occurs through repeated cycles of project failure and organizational response. Each failed project becomes a precedent that shapes future behavior. Organizations that punish failure evolve toward risk aversion, information hiding, and termination resistance. Organizations that learn from failure evolve toward risk management, information sharing, and adaptive termination. These evolutionary trajectories create organizational path dependencies that persist across projects and generations of managers.

Proposition 5: Emotional Contagion and Tipping Points

Emotional contagion within project teams creates tipping points for acceptance or resistance to termination. When key team members shift from commitment to withdrawal, cascade effects can rapidly transform team dynamics and accelerate project death.

Emotions spread through projects via multiple channels. Facial expressions, body language, and vocal tones transmit emotional states during meetings. Email rhetoric, chat messages, and document language convey emotional undertones in written communication. Stories, jokes, and informal conversations spread emotional narratives through social networks. Leaders' emotional displays have a disruptive influence on the team's emotional climate. Emotional labor—managing one's own and others' emotions—becomes a hidden project workload that affects performance.

Tipping points emerge when emotional shifts cascade through social networks. A respected team member expressing doubt can trigger widespread questioning. A leader showing fatigue can deflate team energy. A key developer rage-quitting can precipitate mass exodus. These emotional cascades are non-linear—long periods of stability punctuated by rapid transitions. The same team that persisted through months of challenges may suddenly collapse when emotional support structures fail.

Critical factors influence emotional tipping points: network structure (centralized networks are vulnerable to leader emotions while distributed networks show more resilience), emotional intelligence (teams with high EI better manage emotional dynamics), external pressures (customer criticism, executive impatience, or competitive threats trigger emotional crises), and symbolic events (missed deadlines, failed demos, or negative reviews catalyze emotional shifts). Understanding these factors enables prediction and potentially prevention of emotional collapse.

Proposition 6: Performance Visibility and Termination Timing

The visibility of project performance across subsystems influences termination timing. Projects with high political visibility but low technical transparency can persist longer than those where technical performance is highly visible to political actors. Figure 3 illustrates differential visibility of political, social, and technical subsystems across organizational hierarchy. Executives have high political visibility but low technical transparency, while team members experience the opposite pattern. Information filtering and distortion increase with hierarchical distance, creating asymmetrical realities that affect termination timing.

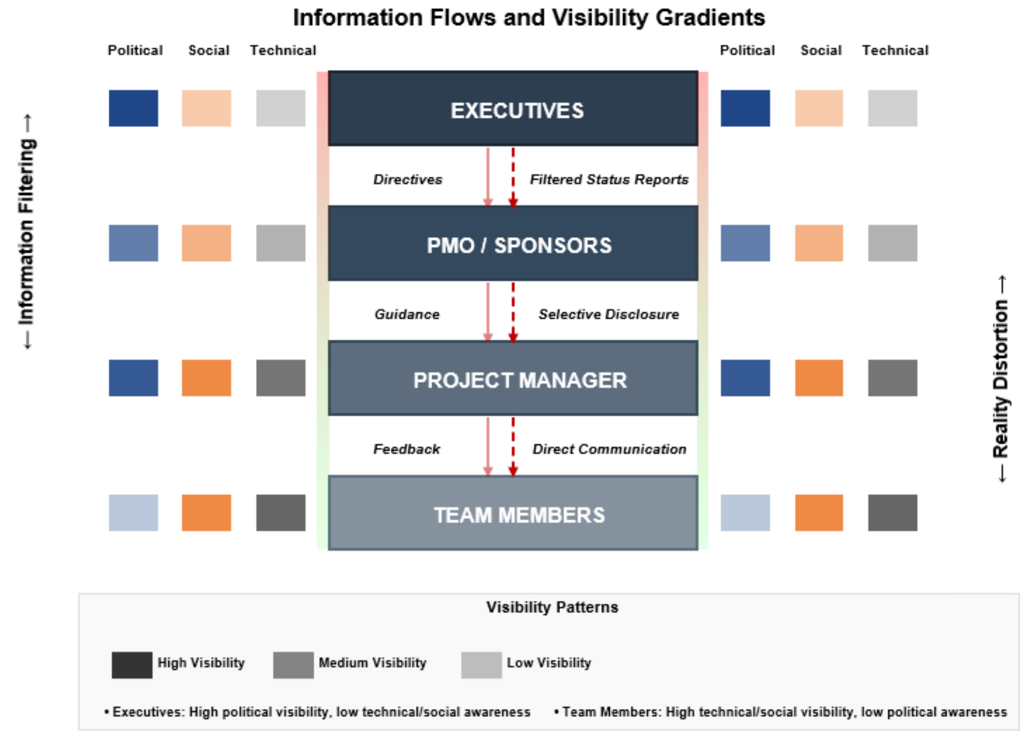

Figure 3. Information Flows and Visibility Gradients.

As illustrated in Figure 3, visibility varies across subsystems, creating information asymmetries that affect termination dynamics. Political actors may see only filtered status reports while technical teams confront daily system failures. Technical teams may focus on functionality, while political actors prioritize strategic alignment. Social dynamics may be invisible to those outside the team while being painfully obvious to those within. These visibility gradients create distinct realities for different actors, resulting in conflicting assessments of project viability.

Information control has become a critical political tool in managing termination pressures. Project managers strategically reveal or conceal information to influence stakeholder perceptions. They may emphasize technical progress to maintain political support or highlight technical challenges to justify resource requests. They may showcase team cohesion to demonstrate capability or expose team conflicts to excuse performance. This information management is not necessarily deceptive but reflects genuine uncertainty about which signals matter and competing pressures to satisfy different audiences.

Transparency interventions have complex effects on termination dynamics. Increased technical visibility may accelerate termination of failing projects but also subject viable projects to premature termination based on misunderstood metrics. Dashboard systems that make all project metrics visible may improve accountability but also encourage gaming behaviors. Open communication channels that surface problems early may enable timely intervention, but they can also create panic over manageable issues. The relationship between transparency and termination effectiveness is thus contingent upon an organization's capacity to interpret and respond to information quickly and decisively. Senior management should terminate projects that no longer align with corporate strategy to ensure a strategic fit. This rigorous termination of bad and troubled projects improves the strategic fit of the portfolio and senior management's decisive role in this context. However, over-involvement of senior managers can result in adverse effects on the strategic fit of the portfolio (Unger et al., 2012).

Figure 4 illustrates how resistance to termination varies across different failure patterns throughout the project lifecycle. Political assassination shows peak resistance before a sudden collapse, social disintegration peaks during the middle stages, technical collapse accelerates near project end, while system exhaustion shows cumulative increase throughout.

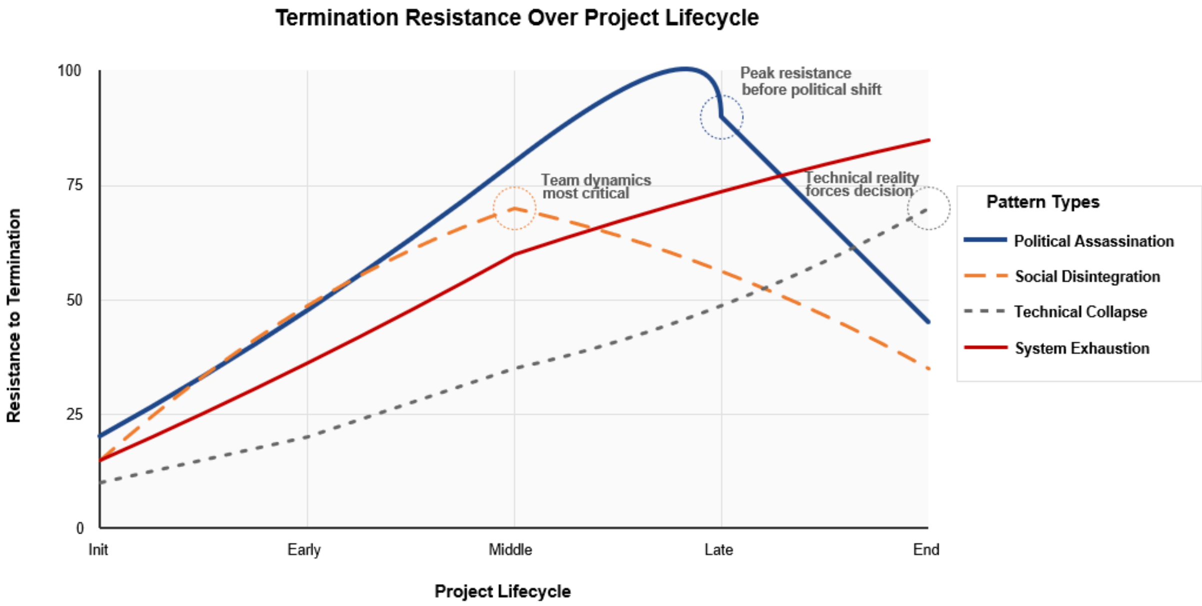

Figure 4. Termination Resistance Over Project Lifecycle.

Table 3 summarizes the six theoretical propositions, including their underlying mechanisms, empirical indicators, and suggested measurement approaches for future research.

Table 3. Theoretical Propositions and Empirical Indicators.

Proposition	Core Claim	Key Mechanisms	Empirical Indicators	Measurement Approaches
P1:Subsystem Misalignment	Non-linear increase in termination risk with misalignment	•Feedback amplification •Compensatory mechanism failure •System instability	•Divergent subsystem metrics •Contradictory stakeholder assessments •Increase in problem accumulation across various subsystems	•Subsystem alignment index •Stakeholder perception surveys • Trend analysis of subsystem metrics
P2:Lifecycle Contingency	Dominant subsystem varies by stage and context	• Early: Political vulnerability • Middle: Social criticality	•Stage-specific failure patterns • Differential impact of interventions	•Longitudinal tracking • Comparative case analysis

Proposition	Core Claim	Key Mechanisms	Empirical Indicators	Measurement Approaches
		• Late: Technical determinism	• Context-dependent outcomes	•Intervention effectiveness
P3:Imbrication Path Dependency	Entanglement increases termination resistance	•Progressive coupling • Asset specificity • Switching costs	• Architectural complexity metrics • Team specialization measures •Dependency network density	•Technical coupling analysis • Social network mapping •Cost of termination estimates
P4:Failure Attribution Culture	Blame vs. learning cultures **affects** future patterns	•Information hiding/sharing • Risk tolerance • Adaptive capacity	• Problem disclosure timing • Repeat failure rates • Innovation metrics	•Cultural assessment tools • Failure response analysis • Learning curve measurement
P5:Emotional Contagion	Tipping points from emotional cascades	•Network transmission • Leader influence •Cascade dynamics	• Sentiment analysis trends • Turnover patterns • Team survey shifts	• Communication sentiment analysis • Social network analysis •Longitudinal surveys
P6: Performance Visibility	Transparency affects termination timing	•Information asymmetry •Strategic disclosure •Gaming behaviors	•Reporting transparency levels •Stakeholder information gaps •Decision timing patterns	• Information audit trails •Stakeholder knowledge tests •Decision lag analysis

5. Case Illustrations: The Framework in Practice

To illustrate how our socio-technical framework illuminates the dynamics of real-world project termination, we examine three cases that exemplify different patterns of project failure. These cases, drawn from documented project failures, illustrate how the interaction of political, social, and technical subsystems produces termination outcomes that rational models alone cannot explain.

5.1 Case 1: The UK National Health Service National Programme for IT (NPfIT)

The UK's NHS National Programme for IT, launched in 2002 and officially abandoned in 2011 after spending £12.7 billion, represents one of the largest civilian IT project failures in history. Through our framework lens, NPfIT's demise illustrates "system exhaustion", a simultaneous breakdown of political, social, and technical subsystems.

Political Subsystem Dynamics: NPfIT began with extraordinary political support. Prime Minister Tony Blair championed digital transformation as central to modernizing the NHS. The project secured the largest civilian IT budget in history and established powerful governance structures. However, political dynamics shifted dramatically over the project's lifecycle. Changes in government brought new priorities and skepticism about large IT projects. Regional NHS trusts, initially excluded from planning, mobilized political resistance to centrally imposed systems. Medical professional bodies lobbied against systems they viewed as threatening clinical autonomy. By 2009, political support had evaporated, with Parliament condemning the project as a costly failure.

Social Subsystem Breakdown: The social dynamics of NPfIT were problematic from inception. The project excluded frontline clinicians from the requirements definition process, creating immediate alienation. Implementation approaches that mandated system use without addressing workflow disruption generated widespread resentment. Trust between the central program team and local NHS organizations eroded as promised benefits failed to materialize. Healthcare professionals developed workarounds to circumvent systems they perceived as hindrances to patient care. The social fabric essential for successful implementation—buy-in, trust, collaborative problem-solving—never formed and eventually fell apart completely.

Technical Subsystem Failures: Technically, NPfIT faced insurmountable challenges. The attempt to create a single integrated system for the entire NHS—serving 1.3 million employees across thousands of facilities—proved architecturally naive. Legacy system integration requirements were vastly underestimated. Data standardization across diverse clinical contexts proved impossible. Performance problems plagued rolled-out systems, with response times making them clinically unusable. Security concerns about centralized patient records created additional technical hurdles. Vendor relationships collapsed as technical challenges mounted, with major contractors withdrawing from the program.

Subsystem Interactions: The NPfIT case demonstrates how subsystem failures cascade and amplify. Political mandates for rapid implementation prevented proper technical planning and social engagement. Technical failures undermined political credibility and social trust. Social resistance reduced technical system usage, preventing refinement through user feedback. Political fragmentation meant technical problems couldn't be addressed through additional resources. Social fragmentation meant technical workarounds proliferated rather than systematic solutions being developed. By 2010, the project existed in name only—politically abandoned, socially rejected, and technically unworkable.

5.2 Case 2: Berlin Brandenburg Airport (BER)

Berlin Brandenburg Airport, conceived in 1996, planned for 2011 opening, and finally operational in 2020 after €7 billion in costs, exemplifies "political assassination" despite technical viability. The project's termination resistance demonstrates how political dynamics can override technical and social realities.

Political Dynamics of Persistence: BER became politically "too big to fail" despite repeated technical setbacks. The project symbolized Berlin's aspirations as a world capital and Germany's engineering prowess. Politically, acknowledging failure would have been catastrophic—damaging regional reputation, acknowledging waste of public funds, and admitting incompetence. Politicians repeatedly chose continuation over termination, even when technical assessments recommended starting over. Each political cycle brought new promises of imminent completion, making termination politically impossible for successive administrations.

Technical Challenges and Solutions: While BER faced serious technical challenges—particularly the fire safety system that delayed opening by years—these were ultimately solvable engineering problems. The technical subsystem indicated problems, but not impossibility. International airports of similar complexity had been successfully built elsewhere. Technical reviews consistently identified specific, addressable issues rather than fundamental flaws. The technical challenges, while significant, did not justify the decade of delays and billions in overruns. Technical problems became political ammunition in broader conflicts rather than being addressed through engineering solutions.

Social Dynamics of Dysfunction: Socially, BER became a national embarrassment that paradoxically increased termination resistance. Public ridicule created defensive reactions among project stakeholders. Team morale collapsed and reformed cyclically with leadership changes. Construction workers, engineers, and managers developed gallows humor about the "cursed" project. The social meaning of BER shifted from pride to shame to resigned acceptance. This social dysfunction prevented effective collaboration between political, technical, and contractor teams, creating coordination failures that compounded technical challenges.

5.3 Case 3: Google+ Social Network

Google+ (2011-2019) illustrates a "technical collapse," where strong political support and initial social enthusiasm couldn't overcome a fundamental technical-market misalignment. Despite Google's resources and commitment, the project failed to achieve critical mass and was terminated after a data breach provided political cover for an inevitable shutdown.

Political Commitment and Resources: Google+ enjoyed extraordinary political support within Google. CEO Larry Page personally championed the project, tying employee bonuses to Google+ success. The project commanded thousands of engineers and designers, an unlimited budget, and integration with all Google services. Internal politics initially suppressed dissent about the project's viability. The political subsystem strongly supported continuation even as user adoption lagged. Termination only became politically possible when external events (data breach) provided a face-saving justification for what internal metrics had long indicated.

Social Dynamics of Adoption Failure: Socially, Google+ faced an impossible challenge—building community in competition with established networks. Despite initial enthusiasm from tech early adopters, mainstream users saw no compelling reason to switch from Facebook. The social subsystem external to Google (users) never developed critical mass, while the internal social subsystem (Google employees) remained committed but increasingly demoralized. The disconnect between internal social investment and external social rejection created cognitive dissonance, delaying the recognition of failure.

Technical Excellence Without Purpose: Technically, Google+ was well-executed. The platform introduced innovative features like Circles for privacy control and Hangouts for video chat. Performance was excellent, scaling was successful, and integration with Google's ecosystem was seamless. However, technical excellence couldn't overcome the fundamental market-technical misalignment—users didn't need another social network regardless of technical superiority. The technical subsystem's success paradoxically made termination harder as engineers argued that technical quality would eventually attract users.

Table 4 presents a comparative analysis of the three cases, highlighting how different socio-technical configurations lead to different patterns of project death.

Table 4. Case Study Comparison Matrix.

Aspect	NHS NPfIT (UK)	Berlin Brandenburg Airport	Google+
Duration	2002-2011	1996-2020	2011-2019
Cost	£12.7 billion	€7 billion	~$500 million
Pattern	System Exhaustion	Political Assassination	Technical Collapse
Political Dynamics	• Initial strong support • Government changes • Regional resistance	• "Too big to fail" • Political symbolism • Face-saving imperative	• CEO championship • Bonus incentives • Data breach excuse
Social Dynamics	• Clinician alienation • Trust breakdown • Workaround culture	• National embarrassment • Gallows humor • Cyclical morale	• Internal enthusiasm • External rejection • Cognitive dissonance
Technical Issues	• Integration complexity • Performance problems • Security concerns	• Fire safety system • Solvable but delayed • Coordination failures	• Technical excellence • Market misalignment • No user needs
Termination Resistance	Moderate	Extreme	High
Lessons	Need stakeholder engagement	Political symbolism overrides rational assessment	Technical quality is insufficient without market fit

6. Discussion: Theoretical and Practical Synthesis

Our socio-technical framework for understanding project death reveals several important insights that challenge conventional wisdom about project termination while opening new avenues for theory and practice.

6.1 Reconceptualizing Project Failure

The framework fundamentally reconceptualizes project failure from a discrete outcome to an emergent process. Rather than projects simply succeeding or failing based on performance metrics, we see project death as arising from complex interactions among political, social, and technical dynamics. This perspective explains puzzling empirical observations: why technically sound projects fail (political or social subsystem breakdown), why obvious failures persist (political protection or social commitment), and why sudden collapses occur after long periods of apparent stability (cascading subsystem failures).

The reconceptualization has important implications for how organizations approach project governance. Rather than focusing exclusively on technical performance metrics and rational decision criteria, organizations need governance systems that monitor and manage socio-technical dynamics. This includes tracking political alignments, assessing social cohesion, and understanding technical trajectories as interrelated rather than independent phenomena. Early warning systems should look for subsystem misalignments and emerging tensions rather than just performance variances.

6.2 The Paradox of Rational Intervention

Our analysis reveals a fundamental paradox in project termination: the very act of rational analysis and intervention can disrupt the socio-technical dynamics that enable either successful continuation or graceful termination. When organizations impose rational termination criteria, they may inadvertently create political resistance (stakeholders' game the metrics), social dysfunction (teams lose psychological safety), and technical distortions (effort shifts from solving problems to managing perceptions). The attempt to rationalize termination decisions can make them less, rather than more, rational in their outcomes.

This paradox suggests that effective termination management requires what we might call "socio-technical wisdom"—the ability to work with rather than against system dynamics. This means creating conditions where termination can emerge naturally from subsystem dynamics rather than being imposed externally. It involves managing the political narrative around failure, maintaining social cohesion through transitions, and ensuring technical learning from terminated projects. The goal is not to eliminate politics and emotion from termination decisions but to channel them productively.

6.3 Implications for Project Management Theory

Our framework contributes to several theoretical conversations in project management. First, it extends complexity theory by specifying mechanisms through which complexity emerges in projects. Rather than treating complexity as a generic property, we show how political, social, and technical subsystems generate specific forms of complexity through their interactions. Second, it bridges institutional theory and practice theory by showing how macro-level institutional logics (political subsystem) interact with micro-level practices (social subsystem) through technical mediation. Third, it contributes to behavioral project management by revealing how cognitive and emotional dynamics operate within broader socio-technical systems rather than just individual minds.

The framework also challenges the temporary organization perspective that dominates project management theory. While projects may be temporally bounded, the socio-technical systems they create often persist beyond project boundaries. Technical architectures outlive projects as legacy systems. Social relationships formed in projects continue in professional networks. Political reputation earned in projects affect future opportunities. This persistence means that project termination is never just about ending a temporary organization but about dismantling or transforming more durable socio-technical configurations.

7. Methodological Considerations for Empirical Research

Testing and refining our socio-technical framework requires methodological approaches that can capture the complexity, dynamism, and emergence characteristic of project termination processes. We outline key methodological considerations for researchers seeking to empirically investigate the framework's propositions.

7.1 Research Design Challenges

Studying project termination through a socio-technical lens presents several methodological challenges. First, the phenomenon is relatively rare and often hidden—organizations don't advertise failures, and terminated projects leave limited documentary traces. Second, the process is extended and dynamic—termination unfolds over months or years through complex interactions that resist snapshot observation. Third, the phenomenon is multilevel—individual, team, project, and organizational levels interact in ways that single-level analysis cannot capture. Fourth, the process is sensitive—studying failing projects can affect their trajectories, creating Heisenberg effects where observation changes outcomes.

These challenges suggest that traditional research designs may be insufficient. Cross-sectional surveys cannot capture temporal dynamics. Laboratory experiments cannot replicate organizational complexity. Single case studies may lack generalizability. Large-sample statistical analyses may miss contextual nuances. Instead, researchers need innovative designs that combine multiple methods, span extended timeframes, and capture multiple levels of analysis.

7.2 Data Collection Strategies

Effective data collection for socio-technical project termination research requires triangulation across data sources and methods:

Political subsystem data: Email archives revealing coalition formation, meeting minutes showing agenda shifts, organizational charts tracking power redistribution, budget documents indicating resource flows, and interviews with key political actors about backstage dynamics. Researchers might use network analysis to map influence patterns, discourse analysis to track narrative evolution, and ethnographic observation to understand political maneuvering.

Social subsystem data: Team surveys measuring psychological safety and cohesion, communication logs showing interaction patterns, turnover data indicating social fragmentation, ethnographic observations of team dynamics, and interviews about emotional experiences. Sentiment analysis of project communications, sociometric badges tracking face-to-face interactions, and diary studies capturing emotional trajectories could provide rich social data.

Technical subsystem data: Version control histories showing code evolution, issue tracking systems revealing problem accumulation, performance metrics indicating system degradation, architecture documents showing technical dependencies, and test results demonstrating quality trends. Researchers could use repository mining to track technical debt, dependency analysis to assess coupling, and technical interviews to understand architectural decisions.

7.3 Analytical Approaches

Analyzing socio-technical dynamics requires analytical approaches that can handle complexity, emergence, and multilevel phenomena:

System dynamics modeling: Creating formal models of feedback loops between subsystems can reveal non-linear dynamics and tipping points. Researchers can simulate how different intervention strategies affect termination trajectories and identify leverage points for management action.

Qualitative comparative analysis (QCA): This approach can identify configurations of political, social, and technical conditions that lead to different termination outcomes. QCA is particularly suited to understanding how different pathways can lead to the same outcome (equifinality) and how the same conditions can produce different outcomes in different contexts.

Process tracing: Detailed reconstruction of event sequences can reveal causal mechanisms linking subsystem dynamics to termination outcomes. Process tracing can identify critical junctures where trajectories diverge and reveal how subsystem interactions unfold over time.

Computational grounded theory: Using machine learning to analyze large volumes of project communications can reveal patterns that human analysts might miss. Topic modeling can track how termination discourse evolves, sentiment analysis can detect emotional shifts, and network analysis can reveal social structure changes.

8. Reconceptualizing Project Control

Our framework challenges fundamental assumptions about managerial control in project environments. Rather than viewing project termination as a controllable decision point, we position it as an emergent phenomenon arising from complex system dynamics that no single actor fully controls. This suggests that project governance frameworks based on hierarchical decision-making and rational evaluation may be fundamentally misaligned with the socio-technical realities of project systems.

The reconceptualization aligns with complexity theory perspectives in project management while specifically elaborating how socio-technical dynamics generate complexity. It suggests that project managers and sponsors operate within, rather than above, the socio-technical systems they seek to govern, making them participants in rather than controllers of termination dynamics.

8.1 Extending Failure and Success Concepts

Our framework contributes to evolving conceptualizations of project failure and success by highlighting their socially constructed and politically contested nature. Rather than treating failure as an objective state that triggers termination, we show how failure itself emerges from socio-technical dynamics and becomes real through social and political processes of recognition and attribution.

This perspective extends recent work on the temporality of project success and failure by showing how different subsystems operate on different temporal scales and evaluation logics. What appears as failure in the technical subsystem at one point may be reframed as learning or a pivot in the political subsystem, while the social subsystem may maintain entirely different success criteria based on team growth and capability development.

8.2 Bridging Micro and Macro Perspectives

The framework provides a theoretical bridge between micro-level behavioral research on project termination focused on individual cognitive biases and decision-making and macro-level organizational research examining structural and environmental factors. By positioning these as different levels within an integrated socio-technical system, we show how individual behaviors, team dynamics, and organizational structures co-evolve to produce termination outcomes.

9. Implications for Practice

9.1 Designing Termination-Aware Governance Systems

Our framework suggests that effective project governance requires explicit attention to socio-technical dynamics rather than exclusive focus on technical performance metrics. Organizations should design governance systems that:

- Monitor political dynamics and stakeholder alignment alongside technical progress
- Assess team morale and social cohesion as leading indicators of project viability
- Recognize early warning signals across all three subsystems
- Create "safe landing" mechanisms that address social and political aspects alongside technical aspects of termination

Rather than treating termination as failure, organizations might reframe it as adaptive system reconfiguration, reducing the political and social resistance that often sustains failing projects.

Table 5 provides practical intervention strategies organized by subsystem and project phase, offering specific actions for prevention, correction, and termination management.

Table 5. Intervention Strategies by Subsystem.

Subsystem	Early Warning Signs	Preventive Interventions	Corrective Actions	Termination Strategies
Political	• Sponsor distancing • Strategic shifts • Resource competition	• Stakeholder mapping • Coalition building • Regular alignment checks	• Executive re-engagement • Strategic repositioning • Political negotiation	• Face-saving narratives • Transition planning • Reputation protection
Social	• Declining morale • Key departures • Communication breakdown	• Team building • Psychological safety • Clear roles/goals	• Team intervention • Leadership change • Conflict resolution	• Team redeployment • Celebration of learning • Transition support
Technical	• Milestone slippage • Quality issues • Architecture concerns	• Prototype validation • Incremental delivery • Technical reviews	• Architecture revision • Scope adjustment • External expertise	• Technical salvage • Knowledge capture • Asset recovery

9.2 Managing Socio-Technical Imbrication

Project managers should be aware of how social and technical elements become progressively entangled, creating path dependencies that make later termination more difficult. Practical strategies might include:

- Maintaining modular project architectures that limit socio-technical entanglement
- Creating periodic "breakpoints" where termination can occur with minimal social disruption
- Developing team cultures that celebrate learning from termination rather than treating it as failure
- Establishing rotation patterns that prevent excessive emotional investment in single projects

9.3 Navigating the Politics of Failure

Given the inherently political nature of project termination, project managers and sponsors need political, as well as technical, competencies. This includes:

- Building coalitions that can provide political protection during technical challenges
- Managing failure narratives to enable learning rather than blame
- Creating "face-saving" exits that allow stakeholders to support termination without admitting failure
- Developing political intelligence systems that detect shifting organizational priorities

9.4 Cultivating Adaptive Team Cultures

The social subsystem plays a crucial but often overlooked role in project termination dynamics. Organizations should:

- Foster team cultures that balance commitment with adaptability
- Create psychological safety that allows team members to voice concerns about project viability
- Develop transition support systems that help teams move from terminated to new projects
- Recognize and reward teams that successfully navigate termination without social disintegration

Table 6 provides a comprehensive checklist for practitioners, organizing key actions by subsystem and project phase to guide implementation of our framework in practice.

Table 6. Implementation Checklist by Phase.

Phase	Political Actions	Social Actions	Technical Actions
Project Initiation	• Map stakeholder power • Build coalition • Secure sponsors • Define governance	• Establish team • Set norms • Build psychological safety • Create identity	• Validate feasibility • Prototype early • Define architecture • Set metrics
Ongoing Monitoring	• Track alignments • Monitor politics • Maintain visibility • Manage narratives	• Measure morale • Watch turnover • Facilitate sensemaking • Support wellbeing	• Track performance • Monitor quality • Assess technical debt • Check dependencies
Problem Response	• Re-engage sponsors • Renegotiate scope • Rebuild coalition Control narrative	• Team intervention • Address conflict • Reinforce purpose • Provide support	• Technical pivot • Bring expertise • Adjust architecture • Reduce scope
Termination Decision	• Face-saving story • Protect reputations • Manage transitions • Document lessons learned	• Support transitions • Celebrate learning • Maintain dignity • Enable closure	• Salvage assets • Document knowledge • Clean shutdown • Transfer learning

10. Future Research Directions

Our conceptual framework opens several avenues for empirical research:

Empirical Validation: Future studies should test our propositions through multi-method research designs that capture socio-technical dynamics. Longitudinal case studies could trace how subsystem interactions evolve over project lifecycles, while comparative studies could examine how different organizational contexts shape termination patterns.

Measurement Development: Developing valid measures for socio-technical alignment, political dynamics, and social cohesion in project contexts would enable large-scale quantitative studies. Such measures could help identify early warning indicators of project death across the three subsystems.

Cross-Cultural Studies: The relative importance of political, social, and technical factors in termination decisions likely varies across national and organizational cultures. Comparative research could examine how cultural values shape socio-technical dynamics and termination patterns.

Intervention Studies: Action research could explore interventions designed to improve termination practices by addressing socio-technical dynamics. This might include new governance frameworks, team development programs, or political skill training for project managers.

Technology and Automation: As artificial intelligence and automation increasingly enter project management, research should examine how these technologies alter socio-technical dynamics and termination patterns. Do automated performance monitoring systems reduce political manipulation of technical metrics? How does AI-assisted decision-making affect the social subsystem?

11. Conclusion

This paper argues for a fundamental reconceptualization of project termination, shifting from a discrete managerial decision to an emergent phenomenon arising from complex socio-technical dynamics. By developing a systems framework that integrates political, social, and technical subsystems, we have shown how project death results from recursive interactions among multiple forces rather than linear cause-and-effect relationships.

Our framework challenges the persistent myth of rational project termination, revealing instead a messy reality where political agendas, emotional investments, and social dynamics often override technical performance indicators. This is not a pathology to be eliminated but an inherent characteristic of projects as socio-technical systems embedded in organizational contexts. Attempts to impose purely rational termination criteria will likely fail because they ignore the social and political realities that ultimately determine project fate.

The practical implications are profound. Rather than seeking to eliminate politics and emotion from termination decisions—an impossible task—organizations should design governance systems that explicitly acknowledge and work with socio-technical dynamics. This means developing new competencies in political navigation, social system management, and complex systems thinking alongside traditional technical project management skills.

Theoretically, our framework contributes to the growing recognition of projects as complex adaptive systems while specifically elaborating the socio-technical mechanisms that generate complexity. It bridges multiple theoretical traditions—socio-technical systems theory, organizational politics, and project management—to provide a more comprehensive understanding of project termination.

Perhaps most importantly, our framework humanizes project termination. Behind every terminated project are people with careers, identities, and emotional investments at stake. Technical metrics and rational frameworks, while necessary, are insufficient for navigating these human realities. By acknowledging the deeply social and political nature of project death, we open possibilities for more humane and ultimately more effective approaches to one of project management's most difficult challenges.

Project death, we conclude, is not merely the end of a project but the unraveling of a socio-technical system. Understanding this process requires moving beyond rational decision models to embrace the full complexity of organizational life. Only by recognizing projects as living socio-technical systems can we gain the wisdom needed to determine when and how to let them end.

References

Arkes, H. R., & Blumer, C. (1985). The psychology of sunk cost. *Organizational Behavior and Human Decision Processes*, 35(1), 124-140.

Barton, S., Duchon, D., & Dunegan, K. (1989). An empirical test of Staw and Ross's prescriptions for the management of escalation of commitment behavior in organizations. *Decision Sciences*, 20, 532–544.

Berente, N., Salge, C. A. D. L., Mallampalli, V. K., & Park, K. (2022). Rethinking project escalation: An institutional perspective on the persistence of failing large-scale information system projects. *Journal of Management Information Systems*, *39*(3), 640-672.

Biygautane, M., Clegg, S., & Locatelli, G. (2020). The politics of megaproject delivery: Lessons from Sydney's light rail project. *International Journal of Project Management*, 38(4), 225-235.

Cardella, C. (2022). *Project Termination Quality and Its Influence on Organizational Learning and Project Management Success* (Doctoral dissertation, The University of North Carolina at Charlotte).

Cornelio, J. R. J., Sainati, T., & Locatelli, G. (2021). What does it take to kill a megaproject? The reverse escalation of commitment. *International Journal of Project Management*, *39*(7), 774-787.

Dilts, D. M., & Pence, K. R. (2006). Impact of role in the decision to fail: An exploratory study of terminated projects. *Journal of Operations Management*, *24*(4), 378-396.

Drummond, H. (2014). Escalation of commitment: When to stay the course? *Academy of Management Perspectives*, 28(4), 430-446.

Dusenberry, L., & Robinson, J. (2020). Building psychological safety in science teams. *Nature Human Behaviour*, 4(8), 745-747.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383.

Gray, C. F., & Larson, E. W. (2024). *Project Management: A Socio-Technical Approach* (2024 Release). McGraw-Hill.

Havila, V., Medlin, C. J., & Salmi, A. (2013). Project-ending competence in premature project closures. *International Journal of Project Management*, 31(1), 90-99.

Jin, X., & Peng, Y. (2024). The impact of team psychological safety on employee innovative performance: Communication behavior as mediator. *PLoS One*, 19(10), e0306629.

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, 27(3), 521-535.

Papadonikolaki, E., & Morgan, B. (2025). Leading psychologically safe digitally enabled project teams. *Project Management Journal*, 56(1).

Pfeffer, J. (1981). *Power in organizations*. Pitman Publishing.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. Harper & Row.

Sacramento, C., Lyubovnikova, J., Martinaityte, I., Gomes, C., Curral, L., & Juhasz-Wrench, A. (2024). Being open, feeling safe and getting creative: The role of team mean openness to experience in the emergence of team psychological safety and team creativity. *Journal of Product Innovation Management*, 41(1), 12–35.

Schmidt, J. B., & Calantone, R. J. (2002). Escalation of commitment during new product development. *Journal of the Academy of Marketing Science*, 30(2), 103-118.

Shepherd, D. A., Patzelt, H., Williams, T. A., & Warnecke, D. (2014). How does project termination impact project team members? Rapid termination, 'creeping death', and learning from failure. *Journal of Management Studies*, 51(4), 513-546.

Shertzer, Y., & Brender-Ilan, Y. (2023). Why do leaders escalate their commitment to a failed course of action? A moderated-mediation personality traits model. *SAGE Open*, 13(1).

Staw, B. M. (1976). Knee-deep in the big muddy: A study of escalating commitment to a chosen course of action. *Organizational Behavior and Human Performance*, 16(1), 27-44.

Trist, E. L., & Bamforth, K. W. (1951). Some social and psychological consequences of the longwall method of coal-getting. *Human Relations*, 4(1), 3-38.

Unger, B. N., Kock, A., Gemünden, H. G., & Jonas, D. (2012). Enforcing strategic fit of project portfolios by project termination: An empirical study on senior management involvement. *International Journal of Project Management*, *30*(6), 675-685.

Zaitali, A. (2015). Project exit strategies-Minimizing adverse effects of project failure through strategic termination management.