



EDITORIAL

Adaptive Capacity in Education

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Artificial intelligence is accelerating a broader transformation in how organizations create, coordinate, and capture value. AI increasingly participates in prediction, decision support, knowledge production, resource allocation, and organizational learning, thereby changing not only operational processes but also the architectures through which value is generated. Yet AI-enabled transformation should not be reduced to technological adoption. Research increasingly shows that organizational value depends on how technological resources are embedded within capabilities, routines, managerial processes, and business models. AI can automate activities while simultaneously augmenting human judgment, creating organizational tensions that require continuous recombination of human and technological capabilities (Raisch & Krakowski, 2021). Similarly, AI capabilities become consequential when organizations connect them to processes of business model innovation rather than treating them as isolated technological assets (Sjödén et al., 2021).

This transformation also exposes fragmentation across research streams. AI scholarship often concentrates on automation, augmentation, algorithms, and human-machine interaction; business model innovation research examines changes in value creation, delivery, and capture; and digital ecosystem studies foreground interdependence, platforms, data, and network effects. Recent research confirms that AI-driven business model innovation remains conceptually fragmented across technological and managerial perspectives (Jorzik et al., 2024), while evidence on AI-enabled transformation emphasizes that technological experimentation must become embedded in broader organizational arrangements before sustained value can emerge (Black et al., 2024). The five contributions assembled in this issue illuminate a parallel challenge within educational organizations. Although their focal constructs differ, collectively they suggest that adaptation depends not on any single resource, technology, leadership practice, or institutional response, but on an organization's capacity to convert constraints, relationships, quality aspirations, and environmental demands into repeatable mechanisms of purposeful action.

Resourcefulness as Adaptive Action

The first perspective locates adaptive capacity in what organizations do when preferred resources are unavailable. Educational organizations, particularly those embedded within communities, frequently confront shortages of finance, infrastructure, technology, expertise, and knowledge. Under such conditions, conventional resource perspectives are incomplete because possessing fewer resources does not itself explain why some organizations nevertheless construct workable responses. Educational Bricolage Theory addresses this problem by specifying a sequence through which consequential resource constraints stimulate resource reinterpretation, mobilization of resources at hand, recombinative enactment, and local solution validation. Adaptation therefore begins not simply with acquiring additional resources but with reconsidering what existing resources can become.

This argument extends capability thinking in an important direction. Dynamic capabilities traditionally emphasize organizational abilities to integrate and reconfigure resources under changing conditions. Educational bricolage draws attention to situations in which the preferred resource portfolio cannot first be assembled. Adaptation then depends upon organizational discretion and the capacity to reinterpret heterogeneous resources before recombining them into workable configurations. This resonates with research showing that AI creates value not automatically through technological possession but through organizational processes that connect capabilities with business-model transformation (Sjödin et al., 2021).

Crucially, resourcefulness should not be romanticized. Repeated bricolage can generate two divergent trajectories. Selectively retained solutions may become a reusable bricolage repertoire, effectively converting situated experimentation into organizational knowledge. Conversely, repeated reliance on provisional solutions can accumulate compromises and eventually create a bricolage trap, particularly when scarcity becomes chronic and opportunities for resource renewal disappear. It requires the ability to learn from temporary solutions while retaining the capacity to replace them when their limitations become consequential.

This distinction becomes increasingly relevant in digitally transforming environments. AI and other digital technologies expand the possible repertoire of organizational resources, but technological availability does not eliminate scarcity or guarantee value creation. Research on AI-enabled business models similarly indicates that firms must align technological capabilities with organizational architectures and user value before economic benefits materialize (Haftor et al., 2024). Adaptive organizations are thus distinguished less by the quantity of resources available than by their capacity to interpret, mobilize, evaluate, retain, and renew resource configurations.

Relationships as Adaptive Infrastructure

A second perspective shifts attention from material and technological resources toward relationships. Educational organizations are deeply interdependent systems in which families, communities, teachers, administrators, and external organizations possess knowledge and resources that cannot simply be commanded through formal hierarchy. Relational Trust Infrastructure Theory explains how these relationships can become durable organizational resources through a recursive sequence involving relational signaling, reciprocity confirmation, trust, relational investment, sustained co-participation, and relational infrastructure accumulation.

The central insight is that trust alone does not constitute adaptive capacity. Trust reduces the perceived vulnerability associated with collaboration, but organizational consequences emerge when actors subsequently invest valued resources—time, knowledge, effort, networks, reputation, or material support. Repeated successful investment can create trusted ties, reciprocal expectations, accessible interaction channels, and reusable relational routines. These accumulated conditions constitute relational infrastructure because previous collaboration changes the starting conditions of subsequent collaboration.

This perspective complements emerging debates about digitally mediated organizing. AI can accelerate information processing and coordination, but organizational adaptation continues to depend on relationships through which knowledge is interpreted, contested, shared, and enacted. The automation–augmentation paradox identified by Raisch and Krakowski (2021) is instructive: organizations cannot treat human and machine contributions as independent alternatives because their productive potential emerges through interdependence. Adaptive educational organizations likewise cannot separate technical systems from relational systems. New technologies enter environments already structured by trust, reciprocity, professional identities, and patterns of participation.

Relational infrastructure is also reversible. Broken commitments, exclusion, institutional unreliability, or extractive relationships can revise expectations and erode accumulated

collaborative capacity. Adaptation therefore requires relational maintenance as well as relational accumulation. This is particularly important when digital transformation alters who possesses information, who participates in decisions, and whose knowledge becomes visible. Technologies may reduce some coordination costs while generating new vulnerabilities. Sustainable adaptation consequently requires organizational arrangements capable of preserving meaningful participation alongside technological efficiency.

Quality, Leadership, and Capability Formation

A third perspective concerns the transformation of organizational aspirations into enduring capabilities. Two contributions converge around quality while illuminating different mechanisms. Strategic Quality Capability Theory argues that strategic quality management should not be understood merely as compliance, procedures, or isolated managerial practices. Instead, strategic quality initiatives become consequential when they generate Strategic Quality Capability: an organizational ability to integrate quality-oriented leadership, knowledge, learning, continuous improvement, innovation, and resource orchestration into coordinated action.

The proposed mechanism progresses from strategic quality orientation toward capability formation, organizational learning, continuous improvement, and multidimensional performance. This formulation directly connects educational management with the resource-based and dynamic-capabilities traditions. Adaptation is not simply an organizational reaction to environmental turbulence. It is progressively constructed as institutions accumulate knowledge, embed learning in routines, and develop mechanisms for repeatedly revising processes.

Transformational Leadership–Quality Culture Theory approaches the same broader problem through cultural institutionalization. Transformational leadership initiates change by communicating vision, developing trust, encouraging innovation, and empowering organizational members. Psychological empowerment then strengthens collective commitment; collective commitment supports collaborative learning and continuous improvement; and repeated improvement institutionalizes quality-oriented values as organizational culture. Quality culture consequently represents an organizational capability rather than a temporary administrative achievement.

Together, these perspectives reveal an important distinction between installing systems and developing capacities. Formal quality assurance can establish procedures, but adaptive capacity requires those procedures to become connected with learning, commitment, judgment, and organizational routines. This distinction parallels findings in AI-enabled transformation. Black et al. (2024) show that moving beyond isolated AI “proof points” requires organizational conditions capable of supporting broader business-model transformation, while Jorzik et al. (2024) demonstrate that AI-driven business model innovation involves dynamic changes extending beyond technological implementation. Technology, quality systems, and managerial practices generate durable value only when organizations develop mechanisms capable of absorbing and institutionalizing them.

Leadership therefore matters not because leaders individually produce adaptation, but because they can create conditions through which distributed organizational capacities develop. This issue's contributions consistently move away from direct-effect explanations. Leadership works through empowerment and commitment; quality management works through capability formation and learning; resources become useful through reinterpretation and recombination; and relationships become consequential through investment and accumulation. Adaptive capacity is thus fundamentally mediated.

Legitimacy Within Institutional Plurality

Adaptation nevertheless cannot be understood exclusively as an internal capability. Educational organizations operate within plural institutional environments populated by regulators, professional groups, families, communities, market actors, and normative

constituencies. These audiences may evaluate identical organizational actions according to different standards. Educational Legitimacy Navigation Theory therefore conceptualizes adaptation as a problem of sustaining sufficient legitimacy when universal approval is impossible.

The framework integrates institutional complexity, stakeholder salience, and evaluator-centered legitimacy. Its distinctive mechanism arises when audience-logic heterogeneity creates cross-audience legitimacy trade-offs: satisfying one consequential constituency may preserve or strengthen legitimacy there while weakening acceptance elsewhere. Organizations consequently engage in legitimacy appraisal and selective accommodation, producing differentiated legitimacy portfolios rather than uniform consensus.

This perspective adds an external evaluative dimension to adaptive capacity. Organizational change is not adaptive merely because it increases efficiency or technical performance. Changes must also remain sufficiently acceptable to audiences capable of influencing organizational functioning. This is increasingly consequential as AI and digital systems transform educational decision-making. Algorithmic systems may offer efficiency, personalization, or analytical capacity while simultaneously raising questions concerning professional autonomy, accountability, transparency, participation, and institutional appropriateness. Different audiences can reasonably emphasize different evaluative criteria.

Legitimacy navigation should therefore not be confused with universal accommodation. The theoretical objective is stabilization rather than consensus. Educational organizations may preserve functioning despite persistent disagreement when they understand which audiences are consequential, which institutional logics structure evaluation, and where accommodation is feasible without undermining core organizational purposes. The resulting capacity is inherently political in the organizational sense: adaptation involves allocating attention among heterogeneous expectations while sustaining sufficient acceptance for continued action.

Adaptation as Organizational Architecture

Taken together, the five contributions suggest that adaptive capacity in education is best understood as an organizational architecture rather than a single competency. Resource constraints activate questions of reinterpretation and recombination; relational interdependence creates requirements for trust and accumulated collaborative infrastructure; quality aspirations require capability formation and organizational learning; leadership contributes through empowerment and cultural institutionalization; and institutional plurality requires continuous legitimacy navigation. None of these mechanisms alone constitutes adaptation. Their theoretical significance emerges from how they explain different dimensions of an organization's capacity to continue purposeful action while its conditions change.

This synthesis also provides a bridge to contemporary research on AI and business model innovation. AI changes the technological possibilities available to organizations, but technological possibility becomes organizational value only through mechanisms that transform resources into action. Research increasingly demonstrates that AI-enabled value creation depends on capability development, organizational embedding, and business-model architecture rather than adoption alone (Sjödin et al., 2021; Haftor et al., 2024). The educational theories developed in this issue deepen that argument by demonstrating that organizational adaptation also depends upon relational, cultural, and institutional infrastructures that cannot be reduced to technology.

The broader intellectual contribution of the issue is therefore a shift from adaptation as reaction toward adaptation as capability formation. Educational organizations become adaptive when they can construct workable action from imperfect resources, carry productive relationships across episodes, transform quality principles into learning capabilities, institutionalize improvement within organizational culture, and sustain legitimacy across heterogeneous audiences. Yet each capacity contains possibilities of

deterioration: bricolage can become entrapment, relational infrastructure can erode, quality systems can regress into compliance, cultural transformation can weaken without organizational readiness, and legitimacy portfolios can destabilize. Adaptive capacity is therefore recursive, conditional, and continuously renewed rather than permanently acquired.

Seen from this perspective, the challenge confronting educational organizations in an AI-intensive digital economy is not simply whether they adopt emerging technologies. The more consequential question is whether they possess organizational architectures capable of converting technological, relational, material, and institutional change into sustainable educational action. The theories assembled in this issue suggest that educational resilience ultimately rests on this deeper capacity: the ability to reorganize resources, relationships, routines, meanings, and legitimacy without losing the educational purposes around which adaptation is organized.

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