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Beyond the Technological Turning Point: An Analytical Perspective on AI Trends and Policy Directions for Building Societal Resilience in Thailand

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Abstract

The rapid emergence of artificial intelligence is reshaping global systems, not only through technological innovation but also by transforming economic structures, labour markets, education systems, and governance paradigms. This article provides a critical analysis of key developments in artificial intelligence, from the evolution of large language models to advancements toward artificial general intelligence, and examines their multidimensional implications through a case study of KASIKORN Business Technology Group. Drawing upon both organisational practices and national policy frameworks, the article identifies five significant trends: (1) a shift from digitally confined artificial intelligence to forms that interact with the physical world; (2) a restructuring of labour and business operations; (3) emerging social and ethical risks stemming from excessive reliance on artificial intelligence; (4) the enduring importance of human leadership; and (5) adaptive strategies to prepare organisations for the AI era. The article argues that Thailand must move beyond passive adaptation and adopt proactive, system-level strategies in response to the transformation driven by artificial intelligence. These strategies should include strategic investment in lifelong learning, the establishment of ethical and inclusive innovation governance mechanisms, the advancement of interdisciplinary AI research, and the implementation of incentive schemes to support integration into business and education. In conclusion, artificial intelligence should not be perceived merely as a disruptive force, but rather as a transformative ecosystem that requires human-centred leadership to ensure equitable and sustainable integration into Thai society.

Introduction

The global transition into the era of artificial intelligence represents a transformative phenomenon reshaping the fundamental structures of society, the economy, and human learning systems. In recent years, the rapid development of artificial intelligence has surpassed the boundaries of conventional technological innovation and evolved into a structural shift with far-reaching implications for labour markets, education systems, organisational management, and social governance. Consequently, artificial intelligence is now perceived not merely as a technological tool but as a catalyst that fundamentally transforms the operations of individuals, institutions, and nations (Vargas & Muente, 2025; Liang et al., 2025).

A compelling illustration of this transformation is found in the video "The Ultimate Guide to Wholehearted Leadership in the AI Frontier: KBTG's Edition" (KBTG, 2024), which offers a comprehensive overview of artificial intelligence from both technological and organisational perspectives. The video traces the evolution of artificial intelligence from large language models capable of natural language processing to physical AI systems that perceive and act in the real world. It also highlights recent developments in multiagent artificial intelligence, where multiple AI systems collaborate under the coordination of a central agent. These advances represent critical milestones in the progression toward artificial general intelligence, which is defined as a level of machine intelligence comparable to human cognitive abilities across a broad range of tasks.

The case of KASIKORN Business Technology Group (KBTG) exemplifies this transformation in concrete terms. The organisation has adopted artificial intelligence to scale its software development output from several hundred thousand lines of code to tens of millions within a short time span. It has also restructured its internal operations by integrating artificial intelligence into human resource management and staff development. These initiatives are part of a strategic repositioning to become a technology-driven organisation grounded in the principle of advancing human benefit.

Simultaneously, the video raises concerns about potential unintended consequences of artificial intelligence. These concerns include the displacement of human labour, the possibility of machine self-awareness, and increasing overreliance on automation in daily life. Nevertheless, it underscores the continuing importance of human leadership, particularly among leaders who demonstrate empathy, possess interpersonal communication skills, and have the capacity to balance human needs with technological advancement.

Within this context, the present article analyses major developments in artificial intelligence at both global and organisational levels and proposes comprehensive policy directions aimed at strengthening Thailand's technological resilience. Particular attention is given to the implications of artificial intelligence in the domains of education, labour, the economy, and public administration. Preparing Thailand for the artificial intelligence era requires flexible and forward-looking national strategies that enable the country to act not only as a consumer of emerging technologies but also as an active contributor to the future of the digital world in a capable and sustainable manner.

This article employs the KASIKORN Business Technology Group (KBTG) as an illustrative case study to ground its conceptual analysis, not as a statistically representative national sample. KBTG was selected for its advanced and empirically verifiable integration of artificial intelligence across organisational, technological, and leadership dimensions within the Thai context. Methodologically, this approach aligns with established practices in policy-oriented and interdisciplinary technology studies, where exemplary cases are used to illuminate structural dynamics and strategic implications rather than to support national-level generalisations. As such, the KBTG case serves as an analytical anchor, linking conceptual insights with real-world organisational practice and contributing to the article's broader examination of AI governance, organisational adaptation, and societal resilience in Thailand.

1. The Evolutionary Path of Artificial Intelligence: From Digital Perception to Real-World Interaction

Artificial intelligence has entered a pivotal phase marked by a clear transition from systems operating exclusively within digital environments

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to intelligent systems that can perform tasks and respond to real-world conditions with increasing accuracy and autonomy. A growing body of research substantiates this transformation. In the context of renewable energy systems, for instance, artificial intelligence has been employed to analyse sensor data and visual inputs from wind turbines and solar panels to predict structural failures and facilitate proactive maintenance (Chatterjee and Dethlefs, 2022). In the healthcare sector, artificial intelligence has supported automated diagnostics by interpreting biosignals and vital signs in real time (Devi, 2024). Contemporary artificial intelligence systems are therefore designed not only to learn and make decisions autonomously but also to function effectively within physical environments. These capabilities are exemplified by applications in autonomous robotics, driverless vehicles, and intelligent control systems (Manyika, 2022). Such advancements illustrate the evolution of artificial intelligence from a system limited to logical information processing to one that is embodied and capable of direct interaction with physical objects and environmental contexts (Rus, 2022, cited in Manyika, 2022). This development has given rise to what is increasingly referred to in the literature as Physical AI, a branch of artificial intelligence characterised by its ability to perceive and respond precisely to the dynamics of the real world.

During its initial stages of development, generative models such as GPT-4 demonstrated impressive capabilities in processing and generating natural language within digital domains. Artificial intelligence is now extending beyond these text-based limitations into the field of Physical AI. This emerging form of artificial intelligence integrates perception, motion, and contextual awareness in order to enable meaningful interactions with the constantly changing physical world. Substantial academic evidence supports this trajectory. Bousetouane (2025) introduced the concept of Physical AI Agents, which are grounded in three core components: perception, cognition, and action. These components collectively enable artificial intelligence systems to operate effectively in real-world settings such as warehouse automation and autonomous transportation. Martín-Martín (2025) underscored the significance of embedding computational intelligence into robotic systems through interactive learning processes, which include navigation, object manipulation, and the interpretation of human input. Hasan et al. (2021) proposed a conceptual model involving blended physical and digital environments, demonstrating how artificial intelligence can integrate digital processing with real-world context through perception and informed decision-making. Wu et al. (2025) examined the emergence of AI 3.0, which centres on physical perception and response mechanisms implemented through robotics and automated systems. Ness et al. (2023) argued that advanced forms of Physical AI require a heightened awareness of embodiment, wherein the system possesses the capacity to position itself within physical environments and to adjust its behaviour in alignment with human contexts. Collectively, these contributions suggest a decisive shift in artificial intelligence development from digital interpretation toward real-world operational capability. This shift is exemplified by innovations such as humanoid robots developed by Tesla and Figure AI, which demonstrate the ability to navigate, manipulate objects, and engage meaningfully with humans.

The subsequent phase of artificial intelligence development involves the rise of Multi-Agent AI systems, which comprise multiple autonomous agents working collaboratively toward common objectives. These systems are designed to communicate, allocate roles, and adapt collectively in response to dynamic information and

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environmental variability, thus simulating certain aspects of human teamwork. Recent research increasingly positions Multi-Agent AI as a foundational component in the pursuit of Artificial General Intelligence. This form of intelligence aspires to match or exceed human cognitive capacities across a wide range of domains. Sakhare et al. (2025) proposed the integration of generative and agent-based artificial intelligence as a means to combine creative reasoning with autonomous, goal-directed behaviour, thereby enhancing system adaptability and resilience. Li et al. (2025) introduced the NGENT model, which incorporates multiple domains such as language, vision, robotics, reinforcement learning, and emotional intelligence to simulate human-like cognitive processes. Tallam (2025) presented the concept of Orchestrated Distributed Intelligence, a system in which multiple agents collaborate under the guidance of a central coordinator while maintaining domain-specific expertise. Bariah & Debbah (2024) emphasised the role of embodiment as a critical factor in contextual learning, asserting that artificial intelligence agents must possess sensory capabilities and the ability to interact physically with their surroundings. Sun et al. (2024) proposed a general theory of intelligence based on the notion of internalised needs, suggesting that intrinsic motivation can be encoded into algorithms to enable purposeful and self-directed learning. Williams (2025) advanced the concept of Intelligence Sequencing, arguing that if decentralised collective intelligence emerges prior to the development of centralised artificial general intelligence, the evolution of artificial intelligence may follow cooperative rather than competitive pathways. Collectively, these perspectives indicate that Multi-Agent AI represents not only a technological milestone but also a philosophical and strategic foundation for the sustainable development of human-aligned artificial general intelligence. These systems are expected to possess the ability to interpret complex information, make autonomous decisions, and execute tasks with minimal human supervision, with far-reaching implications across sectors such as healthcare, education, finance, and public administration.

In response to the accelerating development of artificial intelligence capabilities, governments must establish national strategies that are both comprehensive and forward-looking. These strategies should prioritise sustained investment in research and development, alongside the creation of regulatory frameworks that uphold safety, transparency, and accountability. Such policies are essential for balancing technological progress with the protection of individual rights, national interests, and the broader public good. Effective legal frameworks must be adaptive in order to address emerging challenges such as automated decision-making, legal liability in artificial intelligence actions, personal data protection, and algorithmic fairness. Several recent studies offer valuable insights into these issues. Sargiotis (2024) proposed an ethical framework designed to mitigate algorithmic bias and safeguard personal data. Chintoh et al. (2025) recommended the integration of privacy frameworks with legal instruments such as the California Consumer Privacy Act (CCPA) and the Health Insurance Portability and Accountability Act (HIPAA) to promote transparency and build consumer trust. Cheong (2024) advocated for multidisciplinary approaches to artificial intelligence development, while Li (2025) underscored the importance of incorporating human rights, transparency, and civic engagement into system design. At the international level, Dokumacı (2024) called for flexible legal systems based on principles of justice and accountability. Shanker & Neyigapula (2024) stressed the need for continual auditing and inclusive oversight

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mechanisms involving multiple stakeholders. Saenz et al. (2024) proposed responsible artificial intelligence guidelines for the healthcare sector, emphasising the primacy of fairness, safety, and transparency. Furthermore, Li (2025) recommended the establishment of an AI Ethics Council to enhance public trust in technology governance. Ethical frameworks must evolve in parallel with technological advancements to ensure responsible system design and deployment, particularly in domains with high societal impact. Effective governance therefore depends on coordinated efforts among governments, academic institutions, and industry stakeholders. These efforts are crucial to ensuring that artificial intelligence contributes not only to economic growth but also to the advancement of social sustainability, equity, and inclusiveness.

2. Artificial Intelligence and the Transformation of Labour and Organisational Structures

The integration of artificial intelligence into organisational processes has evolved significantly beyond the automation of repetitive tasks. It is now reshaping fundamental paradigms of thinking, working, and scaling operations (Chennupati, 2025; Mamuli et al., 2025). The case of KASIKORN Business Technology Group serves as a vivid illustration of this transformation. The organisation has employed artificial intelligence to expand its software development output from several hundred thousand lines of code to tens of millions within a relatively short timeframe. This rapid expansion reflects the fact that artificial intelligence has progressed from functioning merely as a supplementary tool to human labour to becoming a central determinant of contemporary organisational structures. Traditional roles, such as software developers, now require redefinition, as organisations increasingly rely on personnel who are capable of designing, supervising, and collaborating effectively with intelligent systems. As a result, organisational restructuring is no longer optional; rather, it constitutes a necessary adaptation. Organisations must transition toward work environments in which human and artificial intelligence systems cooperate productively, ethically, and transparently.

This transformation necessitates proactive policy responses. Governments, in collaboration with the private sector and educational institutions, must accelerate the implementation of national strategies that promote lifelong learning while supporting large-scale reskilling and upskilling initiatives. These efforts are particularly critical for occupations with high exposure to automation by artificial intelligence, including fields such as information technology, finance, marketing, and manufacturing (Oladele et al., 2024; Hussain, 2024; Morandini et al., 2023). Policy interventions should aim to expand access to training programmes, provide financial incentives to enterprises that invest in human capital development, and strengthen partnerships between industry and academic institutions to ensure that curricula are aligned with the practical applications of artificial intelligence. Incorporating artificial intelligence literacy into national skills development strategies can mitigate the risks of labour displacement while enhancing a country's innovation capacity in the evolving digital economy.

Human-centred organisational design represents another key dimension in ensuring that artificial intelligence enhances human capabilities rather than exacerbates inequalities in the modern workplace. A growing body of research supports this approach. Usmani et al. (2023) demonstrated that user-centred artificial intelligence, which facilitates joint decision-making between humans and intelligent systems, can improve user empowerment and reduce systemic inequities. Amani (2020) introduced the concept of "Equality by Design," which

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advocates for fairness as a foundational design principle in artificial intelligence development in order to prevent algorithmic bias at the source. Shneiderman (2020) proposed a paradigm shift away from designing artificial intelligence systems that replicate human cognition and toward systems that are intended to augment human potential. He emphasised that artificial intelligence should function as a supportive tool rather than as an autonomous decision-maker. Similarly, Cronholm & Göbel (2022) outlined design principles that integrate human judgment with artificial intelligence systems. These principles include enhanced decision-making processes, the reduction of bias, and collaborative learning mechanisms that promote the creation of equitable and effective organisations. Barmer et al. (2021) reported that organisations applying human-centred design frameworks are better positioned to develop artificial intelligence systems that align with authentic work contexts while minimising the potential for misuse. Piscopo et al. (2024) found that Human-AI Teaming, a collaborative arrangement in which humans retain primary decision-making authority while artificial intelligence provides analytical support, results in improved organisational performance and enhanced employee well-being. Furthermore, Böhme et al. (2023) demonstrated that artificial intelligence systems designed to be accessible to general users, particularly within small and medium-sized enterprises, can reduce technological divides and improve equitable access to intelligent tools.

Taken collectively, these perspectives underscore the importance of aligning artificial intelligence development with human values. Ensuring such alignment is essential for constructing a future of work that is equitable, inclusive, and sustainable.

3. Threats from Artificial Intelligence: Emerging Risks That Must Not Be Overlooked

As artificial intelligence systems continue to advance in their ability to perform complex tasks that were once solely undertaken by humans, numerous occupations across various sectors are becoming increasingly vulnerable to automation. These sectors include manufacturing, transportation, customer service, and even knowledge-intensive professions. This trend not only generates significant economic disruption but also raises complex philosophical and ethical concerns. These concerns involve questions regarding the autonomy of artificial intelligence systems, the legitimacy of decisions made by machines, and the attribution of responsibility for the outcomes produced by such systems.

A clear example of this disruption can be observed in the replacement of human workers performing repetitive tasks, such as those found on assembly lines, in logistics operations, and in customer service roles, particularly in call centres (Mahmud et al., 2022). The degree of vulnerability varies by industry, with low-skilled and routine occupations experiencing the greatest impact. These labour market shifts have led to increased calls for governments to invest in educational and training initiatives aimed at supporting displaced workers and addressing the risk of widening inequality (Lin, 2024).

Recent evidence further indicates that even professional roles historically held by individuals with advanced education are at risk. This includes positions in online customer support and data analysis, especially where tasks involve repetitive interaction or pattern recognition (Chen, 2025). Such developments have intensified ethical debates regarding the fairness of replacing human labour with artificial intelligence. Several case studies underscore the importance of

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organisational accountability in managing these transitions responsibly. This responsibility includes implementing support mechanisms for affected workers and adopting comprehensive strategies to mitigate adverse social impacts (Yogalakshmi & Maruthavijayan, 2025).

Another critical dimension of risk involves data governance and the integrity of algorithmic systems. Artificial intelligence models typically depend on large-scale datasets for training purposes. These datasets often contain embedded human biases, which can be unintentionally reinforced or amplified by artificial intelligence systems. As a result, automated outcomes may undermine fairness, equality, and justice, particularly in high-stakes sectors such as recruitment, financial services, healthcare, and law enforcement.

A growing body of scholarship has shown that the concept of fairness in artificial intelligence is inherently contextual. This means that fairness cannot be universally defined and may vary significantly across different cultural or application-specific domains. Consequently, several researchers advocate for the adoption of context-aware fairness frameworks that prioritise protections for vulnerable and underrepresented groups (Nepomuceno & Petrillo, 2025). For instance, in domains such as credit scoring or medical diagnosis, artificial intelligence systems have demonstrated bias against minority populations. This bias can be mitigated through technical approaches, including the use of lossless de-biasing techniques and the oversampling of underrepresented data groups during model training (Zhou et al., 2021).

In the healthcare context specifically, scholars suggest that fairness should be evaluated based on the principle of equity rather than equality. This perspective recognises that demographic variables such as age, gender, or ethnicity may have legitimate clinical relevance. Moreover, several researchers stress the importance of including ethical experts throughout the design and implementation phases of artificial intelligence systems to ensure that ethical standards are systematically embedded in practice (Liu et al., 2023).

Concerns related to fairness must extend across the entire lifecycle of artificial intelligence development. This includes data collection, model design, the selection of evaluation metrics, and deployment in real-world environments. In many cases, these environments reflect and reproduce existing structural inequalities (Leslie et al., 2024).

Beyond bias and fairness, there is growing concern about the psychological and societal consequences of excessive dependence on artificial intelligence. Overreliance on automated systems may diminish human cognitive abilities and critical thinking skills, particularly when individuals begin to rely unquestioningly on machine-generated outputs. Furthermore, privacy risks are intensified due to the need for extensive personal data, often processed in regulatory environments that are ambiguous or inadequately defined.

Given the complexity and interconnected nature of these risks, it is essential for governments to establish independent regulatory bodies tasked with defining, monitoring, and enforcing standards for the development and deployment of artificial intelligence technologies. Such regulatory frameworks must incorporate legally binding requirements concerning safety, fairness, transparency, and accountability. These requirements should apply to all stages of the artificial intelligence lifecycle, from initial data acquisition through to public deployment.

In addition, national strategies should prioritise investment in ethical research and promote development frameworks that uphold fundamental human values. These values include human dignity, social equity, and democratic

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governance. Integrating ethical considerations directly into the innovation process will help prevent unintended harm and enhance public trust in artificial intelligence. This trust is essential to ensure that artificial intelligence becomes a constructive and inclusive force within society, rather than a source of new forms of inequality or marginalisation.

4. The Enduring Role of Humanity: Empathic Leadership in the Age of Artificial Intelligence

Although artificial intelligence possesses unparalleled computational capabilities, human beings continue to occupy an irreplaceable leadership role in addressing the complex social, emotional, and ethical dimensions of organisational life. While artificial intelligence systems demonstrate superior performance in tasks involving data analysis, pattern recognition, and predictive forecasting, they lack essential attributes that are foundational to effective leadership. These attributes include empathy, inspiration, the ability to resolve interpersonal conflicts, and holistic judgement. Such qualities are indispensable for guiding diverse and dynamically evolving teams, especially in organisational environments shaped by rapid technological transformation, where uncertainty, resistance, and anxiety often arise (Dwivedi, 2025; Cawthorpe, 2023). Human-centric leadership is critical in building trust, promoting well-being, and aligning organisational objectives with broader societal values in a coherent, inclusive, and ethically grounded manner.

Within this context, leadership in the era of artificial intelligence must encompass more than technical expertise. It requires the integration of emotional intelligence, interpersonal communication, and an understanding of the human consequences of technological adoption. Leaders must be capable of recognising both the limitations and the potential of artificial intelligence systems, particularly those that influence decision-making processes across a range of industries. Furthermore, leaders must be equipped to interpret system-generated outputs through a human-centred lens in order to evaluate their implications for individuals and society (Dwivedi, 2025; Ateeq et al., 2025; Frimpong, 2025). Empathy, therefore, emerges as a critical competency that enables leaders to bridge the gap between algorithmic reasoning and human values. This quality ensures that technology remains a tool for advancing human dignity rather than becoming a mechanism through which humans are subjected to automated control.

From a policy perspective, it is imperative that governments support the development of leadership programmes that combine technological fluency with human-centred thinking. National education systems should integrate curricula that emphasise both artificial intelligence literacy and empathetic leadership development. These curricula should be implemented across all levels of education, from primary schools to higher education institutions, in order to prepare emerging leaders with the interdisciplinary capabilities needed for the digital age (Alghowinem et al., 2024; Alam & Dewi, 2024; Sultan & Sultan, 2024). In both public and private sectors, professional development initiatives should focus on building capacities in ethical reasoning, collaborative problem-solving, and adaptive communication within artificial intelligence-supported workplaces.

Cultivating leaders who are capable of navigating complex technological landscapes without relinquishing core human values is essential for ensuring that the societal transitions driven by artificial intelligence are sustainable, equitable, and inclusive. Such leaders will be well positioned to shape artificial intelligence integration in ways that promote long-term public benefit while preserving the ethical foundations of human interaction.

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5. Strategic Organisational Adaptation in the Age of Artificial Intelligence

Organisational adaptation to artificial intelligence should begin not with large-scale investments in advanced technologies, but with the establishment of a strong foundational understanding. Rather than prioritising the adoption of cutting-edge tools, organisations should focus on promoting artificial intelligence literacy across all employee levels. This foundational literacy is defined as the ability to understand, evaluate, and critically use artificial intelligence in digital environments. It is particularly relevant in applications such as generative artificial intelligence and augmented analytics, which can significantly improve employee productivity and the quality of workplace experiences (Prashant et al., 2024).

Developing artificial intelligence literacy alongside broader digital competencies is essential for ensuring that organisations are able to reduce repetitive workloads, stimulate innovation, and derive sustained value from technological integration (Tona et al., 2025; Sengsri & Khunratchasana, 2024; Tripathi, 2024). This priority is equally applicable in both business and educational contexts. For instance, research on Nigerian public schools found that investments in artificial intelligence literacy improved teachers' adaptability to technology-integrated instruction, leading to a recommendation for the inclusion of artificial intelligence training within national education policy (Ewa, 2024). Likewise, studies in human resource management have emphasised that artificial intelligence literacy should precede the implementation of more complex systems. This sequence allows organisations to address challenges related to governance, algorithmic bias, and system transparency more effectively (Du, 2024; Bisht & Sharma, 2025).

Importantly, artificial intelligence literacy does not require employees to possess technical programming or machine learning expertise. Rather, it involves the ability to grasp fundamental concepts of artificial intelligence and recognise its limitations. These include biases embedded in training data, interpretive errors in language-based outputs, and ethical considerations in decision-making. Awareness can be fostered through structured programmes such as "AI for Everyone," in addition to diverse learning resources including infographics, podcasts, and articles, which allow for broad dissemination of knowledge. Studies have also shown that positive attitudes toward artificial intelligence significantly improve employees' confidence in future career development. Therefore, training policies should treat artificial intelligence literacy as a key component of workforce development (Lademann et al., 2025). Additionally, organisations should incorporate ethical considerations into decision-making processes, thereby cultivating a workplace culture grounded in responsibility and long-term values.

After building this foundational capacity, organisations may begin small-scale pilot projects using accessible artificial intelligence tools. Such initiatives can provide practical experience and inform future strategic scaling. Examples include using ChatGPT for summarising documents or generating creative ideas, applying Microsoft Copilot to enhance productivity in office software, and integrating tools such as Canva AI, Grammarly, or Notion AI to assist with content creation and knowledge management. These projects may also involve analysing customer feedback or producing initial marketing drafts. Each pilot initiative should be accompanied by a rigorous evaluation process based on clearly defined performance indicators, such as gains in efficiency or improvements in customer satisfaction.

Another essential element of effective adaptation is the continuous monitoring of artificial intelligence trends. Given the rapid pace of technological development, it is critical that both

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managers and employees remain informed. This can be achieved by following recognised experts such as Andrew Ng, Ethan Mollick, and Lex Fridman, and by engaging with platforms like LinkedIn, YouTube, and Substack. Participation in artificial intelligence conferences, industry networks, and professional communities further strengthens organisational learning and encourages benchmarking against sectoral best practices. To formalise this process, organisations should consider hosting regular briefings on artificial intelligence trends and appointing designated staff members or teams to serve as knowledge scouts responsible for gathering, analysing, and disseminating timely insights to inform strategic planning.

Crucially, organisations must also foster cultures that support experimentation and flexibility. Allowing employees to explore artificial intelligence tools in routine workflows, such as automated email responses or real-time customer data analysis, can encourage innovation from the bottom up. Activities such as internal innovation days focused on artificial intelligence can offer platforms for sharing ideas and lessons learned, even at early stages of development. Performance evaluation systems should also be revised to reward creative thinking, responsible risk-taking, and learning through trial and error. These efforts contribute to the emergence of resilient organisational ecosystems that are capable of adapting to ongoing technological transformation.

From a policy standpoint, public innovation agencies should introduce targeted incentives to support responsible artificial intelligence adoption. These may include tax reductions for companies that invest in artificial intelligence skill development and funding programmes designed to facilitate pilot projects within small and medium-sized enterprises. Such initiatives can broaden access to artificial intelligence technologies, accelerate learning through experience, and enhance the overall capacity of the business sector to engage in responsible, inclusive, and strategic integration of artificial intelligence within society.

Building on this analytical case, the article argues that organisational preparedness for artificial intelligence extends beyond a purely technological challenge and constitutes a broader societal process rooted in continuous learning, adaptive institutional capacity, and human-centred leadership. These dimensions are critical to strengthening societal resilience in Thailand as artificial intelligence becomes increasingly embedded in economic and governance systems.

Conclusion

Artificial intelligence should no longer be regarded solely as a technological force that disrupts established systems. It must instead be understood as a transformative ecosystem that shapes the future of economies, societies, and human life in complex and far-reaching ways. In this regard, Thailand's ability to navigate the AI era depends not only on technological advancement, but also on the integration of AI governance, organisational adaptation, lifelong learning, and human-centred leadership, all of which serve as mutually reinforcing pillars of societal resilience.

The case of KASIKORN Business Technology Group demonstrates that organisations which adopt proactive strategies that combine technological innovation with strong human-centred principles are better positioned to succeed in environments increasingly shaped by artificial intelligence. Rather than treating AI merely as a tool for improving efficiency, these organisations exemplify how technological capabilities can be aligned with human development, ethical responsibility, and continuous organisational learning.

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In response to these developments, the Thai government and relevant stakeholders must not only embrace innovation but also reform foundational systems in education, labour, and governance. These reforms should prioritise lifelong learning, the ethical use of artificial intelligence, open and inclusive research, and responsible experimentation within the business sector. Such efforts will help ensure that technological progress contributes to broad-based societal benefit.

Systemic strategies that are informed by long-term foresight and grounded in humanistic values will strengthen Thailand's technological resilience. Overall, this article synthesises the technological, organisational, ethical, and policy dimensions of artificial intelligence to underscore the necessity of human-centred governance to strengthen long-term societal resilience in Thailand. Such approaches will enable the country to coexist sustainably with artificial intelligence and to assume a leadership role in guiding its integration into society in ways that promote equity, social justice, and the well-being of its people.

Declaration of AI Assistance

This manuscript employed artificial intelligence tools exclusively for the purpose of improving linguistic clarity and grammatical precision. ChatGPT, developed by OpenAI, was used to refine sentence structure and enhance overall readability. Grammarly was additionally employed to review grammar, punctuation, and word choice. All analytical synthesis, conceptual framework development, and scholarly contributions presented in this article are solely the work of the authors.

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