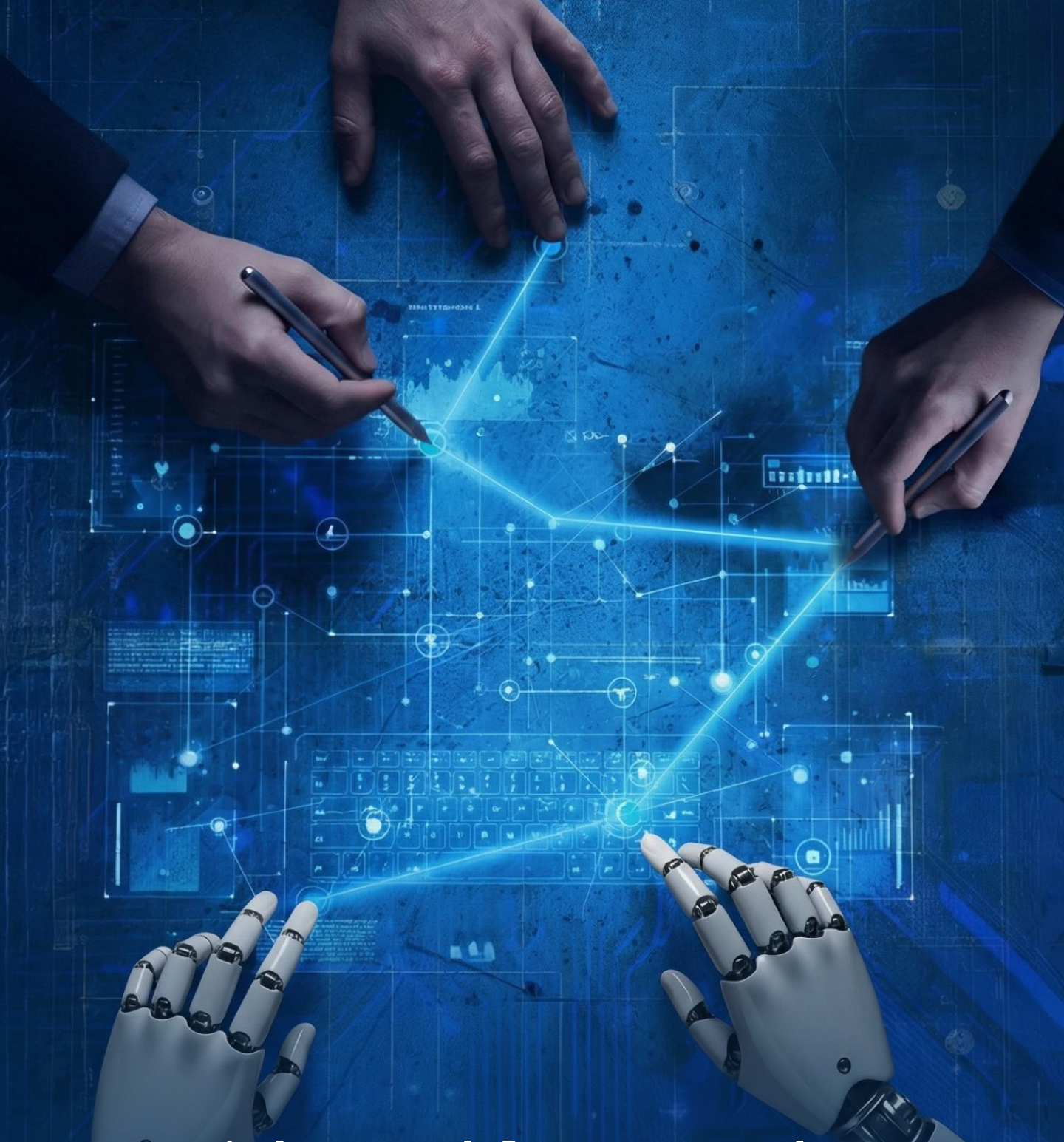


Light Workforce Paradox

Redefining Human Value in Human-AI Symbiosis

How governments can reduce task burden and scale efficiency while strengthening human judgement, accountability, and trust

دائرة التمكين الحكومي
DEPARTMENT OF GOVERNMENT ENABLEMENT

Foreword

Most of the conversation about AI and government is focused on the wrong question.

Policy forums, strategy documents, and executive briefings are overwhelmingly preoccupied with the pace of adoption: how quickly AI can be deployed, how many processes can be automated, how far efficiency can be pushed. These matter. But they are not the questions that will determine whether AI-enabled government is genuinely better or merely faster. The question that will determine that is one that receives far less serious attention: as intelligent systems absorb more of the work, what becomes of the people responsible for the outcomes?

This is not a question about whether people will have jobs. It is a question about what those jobs will mean. When AI handles the routine, the repetitive, and the procedural, what remains in human hands is not less important. It is more important. The judgements that require context. The decisions where accountability cannot be delegated. The moments in which a citizen needs to know that a person, not a process, is responsible for what happens to them. A workforce performing fewer tasks does not carry less responsibility. It carries more.

This is what this report calls the Light Workforce Paradox. It is not a condition unique to government. Every organisation integrating AI at scale will encounter it. What differs is how early an institution faces it and how deliberately it prepares.

Abu Dhabi and its Department of Government Enablement (DGE) are publishing this report from inside that preparation. The emirate has trained more than 95 percent of its 30,000 government employees in AI, embedded Chief Digital and AI Officers across every public entity, and deployed over 100 AI use cases across 40 government institutions. Microsoft's Global AI Diffusion Report Q1 2026 ranked the UAE number one in the world for workplace AI adoption; it is the first country to pass 70 percent of its working-age population [1]. In the capital Abu Dhabi, the goal of becoming the world's first fully AI-native government by 2027 is being built in practice, not just in policy. That depth of commitment creates both the obligation and the standing to ask what most AI strategies do not: what are we building toward, for the people inside these institutions and the people they serve?

The four scenarios in this report are instruments for decision-making, constructed from global evidence and tested with practitioners and international experts. Their purpose is not to predict which future will arrive but to make visible the choices that will determine it. They are as relevant to a corporation in Frankfurt or a ministry in Kuala Lumpur as they are to a government entity in Abu Dhabi, because the paradox at the centre of this report is a feature of AI adoption everywhere.

The work of navigating it is not primarily technical. It is about institutional honesty, role design, and the willingness to protect human judgment even when automating around it is easier. Those are the harder choices. This report is here to make them clearer.



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Department of Government Enablement, Abu Dhabi

Executive Summary

Every government investing in AI is grappling with the same fundamental question: what impact will it have on its workforce? Abu Dhabi's approach to answering that is both nuanced and candid about the tensions that this is likely to raise. As AI absorbs routine tasks across the public sector, the importance of its workforce will not diminish. The significance of human decision-making will carry greater weight, accountability and institutional consequence. This is the Light Workforce Paradox and navigating it well will be one of the defining governance challenges of the next decade.

This report does not predict what will happen. It maps what could happen, and why the choices made now about role design, trust, governance, and human capability will determine whether Abu Dhabi's AI-native ambitions strengthen or gradually erode them.

As AI becomes embedded across government, the very foundations of public-sector work are being reshaped in an unprecedented way. Functions that once defined roles, professional expertise and organisational value are being steadily automated. In their place, judgement, stewardship and accountability are emerging as the distinctive contribution of human workers in a future public service. Automation is no longer confined to repetitive administrative activity; in some domains, it is also reshaping elements of cognitive labour. Taken together, these changes constitute a structural shift for public servants and institutions, redefining not only how work is performed, but what it means to serve within the sector. Anticipating and navigating the challenges and opportunities this creates will be central to Abu Dhabi's ambitions for becoming a leading AI-native state.

The use of intelligent technologies requires a redistribution of responsibility, human judgement and accountability. This dynamic gives rise to what this report terms the ***Light Workforce Paradox***: While the workforce may become lighter in task volume and, over time, headcount, the strategic importance of human judgement, institutional stewardship and accountability increases.

Rather than diminishing the role of people, AI elevates the consequences of human decision-making by accelerating scale, speed and reach. In an AI-enabled system, fewer human interventions carry greater institutional significance.

The Light Workforce Paradox challenges a common assumption underpinning digital transformation, that automation primarily reduces workforce pressure. In practice, however, AI shifts pressure rather than removes it. Human performance of repetitive tasks may diminish, but oversight, exception-handling, ethical judgement and responsibility for outcomes will become increasingly vital, particularly as AI expands the scope and pace of work that institutions can undertake.

This report examines the Light Workforce Paradox as a strategic challenge for Abu Dhabi, at the core of its drive to modernise government and strengthen resilience while maintaining public trust in institutions. Decisions taken today about capability design, workforce configuration and governance arrangements will shape how effectively institutions manage complexity in an AI-enabled future.

Using foresight methods, this report explores how AI-enabled work may evolve, what pressures this creates for institutions and where attention may be needed to sustain public value through to 2040. This includes horizon scanning, macro-environmental analysis, drivers-of-change identification and uncertainty mapping exercises to examine plausible pathways and their institutional implications.

Two key uncertainties were identified as shaping alternative AI-enabled futures in Abu Dhabi. The first concerns the pace and scale of AI-driven automation, ranging from AI that supports discrete aspects of human tasks to fully autonomous systems orchestrating workflows at scale. The second relates to levels of trust and acceptance of AI by human workers and managers, ranging from enthusiastic adoption to resistance driven by perceived loss of agency and control. Together, these uncertainties produce a matrix with four distinct future scenarios:

Symbiotic Craftsmanship describes a high-trust environment in which AI functions as a largely invisible partner, absorbing administrative burden while humans retain responsibility for work requiring critical judgement, nuance, creativity and relationship management. Ultimate authority remains with human judgement, enabling productivity gains while sustaining public confidence in institutional legitimacy.

Fluid Human Core represents the second high-trust future, in which AI autonomously manages a larger share of operations and human roles are concentrated in a smaller number of high-value stewardship functions. Human-centred domains such as care, culture and community value creation expand, supported by workforce mobility pathways that move people from automated roles into new functions through upskilling, reskilling and redeployment as operational work becomes increasingly automated.

Stalled Symbiosis is a low trust future in which AI tools exist but fail to scale or meaningfully reduce operational burden. Morale erodes, not because of technological limitations, but due to insufficient trust, adoption and institutional readiness for change.

Forced Automation depicts a low-trust future in which automation is accelerated under pressure and with limited oversight. Efficiency gains are realised, but at the cost of workforce cohesion, accountability clarity, and public confidence in institutions.

Among the four scenarios, *Symbiotic Craftsmanship* emerges as the most desirable and sustainable future. It enables productivity gains through AI while preserving meaningful human involvement in operations, particularly in public-facing contexts that depend on empathy, cultural sensitivity and accountable judgement.

The report identifies a set of risks and opportunities associated with this scenario. Key risks include the gradual erosion of human judgement capability through over-reliance on AI recommendations; uneven access to AI augmentation or opaque system design undermining public confidence; poorly designed AI tools increasing rather than reducing cognitive burden; resistance arising if continuous learning is not experienced as enabling; and blurred accountability when outcomes are co-produced by humans and machines.

At the same time, opportunities are substantial: improving the quality of public-sector work by redefining it around mastery and human interaction; deploying personalised, AI-augmented learning to support lifelong development; strengthening service outcomes by reallocating human capacity to complex objectives; cultivating high-trust, high-performance organisational cultures; and positioning Abu Dhabi as a global reference for human-centred AI adoption.

The purpose of this analysis is to support the achievement of government's goals for AI development in Abu Dhabi. By clarifying emerging dynamics, trade-offs and strategic inflection points, it aims to support decision-makers in navigating a future in which AI raises efficiency and human capability remains central to the creation of public value.

Key Takeaways

What this means for government leaders

- Treat trust and accountability as design requirements, not downstream outcomes, with clear human accountability for decisions supported by AI
- Invest in governance that keeps systems explainable, contestable, and aligned with public legitimacy in customer-facing services

What this means for workforce strategy

- Redesign roles so routine tasks are handled by AI where appropriate, while human roles remain focused on oversight, judgement, and customer-facing interaction
- Standardise augmentation quality across entities so all teams have access to the same level of AI support, avoiding any capability or productivity gaps and perceptions of inequity

What must be protected at all costs

- Human judgement and visible accountability in high-stakes decisions
- Institutional memory and professional identity (craftsmanship) as automation expands
- Public trust, especially where services are delivered in sensitive, public-facing contexts

The Argument

The world is not short of reports about AI and jobs. What is missing is a clear understanding of how it will change the way that people work.

This report begins from an observation that most workforce analyses overlook: automation does not reduce the importance of human contribution, but rather concentrates it. When AI systems handle more of the operational load, the decisions that still require a person become the ones that matter most, the edge cases, the ethical calls, the moments where a citizen needs to feel that a human being is accountable for what happens to them. The workforce becomes leaner but the responsibility borne by those who remain becomes heavier. That tension is what we call the Light Workforce Paradox.

The speed and intent with which Abu Dhabi is pursuing the integration of AI means that it is encountering this tension in real time. Over 95 percent of its 30,000 government employees have completed some form of AI training, and more than 100 AI use cases are currently live across 40 of its public sector entities. Its stated ambition is to become the world's first fully AI-native government by 2027. These are not aspirational numbers. They are operational facts. And they make the central question of this report pressing: as government systems become more automated, what is going to be the role of the humans working within them?

The four scenarios presented here are not predictions. They are analytical tools, constructed from a review of international evidence and stress-tested with government practitioners and subject-matter experts. They are designed to surface the governance choices that will shape which future materialises. The preferred scenario, Symbiotic Craftsmanship, is not an inevitable outcome. It must be actively chosen, deliberately designed for and sustained over time.



The Numbers that Define The Paradox

95%
of Abu Dhabi's 30,000 government employees have completed AI training, one of the largest government AI literacy efforts of its kind

100+
AI use cases deployed across 40+ Abu Dhabi government entities

2027
Target year for Abu Dhabi to become the world's first fully AI-native government

75%
of global knowledge workers now use AI in their jobs

85-90 million
roles projected to be displaced globally by AI by 2030 (WEF, 2025)

170 million
new roles projected to be created globally by AI by 2030 (WEF, 2025)

39%
of core workplace skills could be outdated by 2030 without continuous learning

26%
projected rise in demand for emotional intelligence skills by 2030, outpacing most technical skills

60%
of workers globally will require retraining by 2027 to keep pace with AI-driven change

13bn AED
Investment backing Abu Dhabi's Digital Strategy 2025- 2027

Sources listed in References [2]

These figures reflect the scale of the transition this report examines. They are not projections specific to Abu Dhabi unless stated.

Acknowledgements

This report was developed as part of the Department of Government Enablement's foresight programme, overseen by the Strategic Affairs and Future Foresight Directorate of DGE. It has been prepared to support government readiness by enabling the anticipation, navigation and proactive shaping of future outcomes in an environment characterised by complexity and uncertainty.

The development of the report was informed by a structured programme of foresight events, including horizon scanning, scenario development, and implications workshops. These activities were complemented by an intergenerational focus group, a Delphi foresight expert panel, targeted expert discussions and expert surveys. Participants included subject matter experts and strategic partners from across government, including representatives from the Department of Community Development, the UAE Cybersecurity Council and the Department of Culture and Tourism - Abu Dhabi, as well as **Dr. Ahmad Dabbagh**, Managing Director of Polynome AI Academy; **Dr. António Alvarenga**, Founder and CEO (ALVA Research & Consulting), Adjunct Associate Professor (NOVA SBE); **Cesar P. Moukarzel**, Associate Partner at Sia, Global Lead of Citizens' Services; **Grayson Bass**, Innovation Advisor & Product Manager, UN-Habitat, Quality of Life Initiative, Frontier Technology & Future Foresight Advisor; **Prof. Jean-Claude Burgelman**, PhD, Professor Emeritus Free University of Brussels, Director Frontiers Planet Prize; **Prof. Dr. Ozcan Saritas**, Professor of Future Foresight and Strategic Planning, RIT Dubai; and **Dr. Renaud Debailly**, Associate Professor of Sociology, Sorbonne University Abu Dhabi.

Insights generated from these events informed the identification of key signals, drivers and uncertainties, supported the development of alternative future pathways and shaped the articulation of implications. Collectively, these contributions strengthened the analysis by testing underlying assumptions, surfacing diverse perspectives and grounding the report in Abu Dhabi's strategic and institutional context.

- Department of Community Development

دائرة تنمية المجتمع
DEPARTMENT OF COMMUNITY DEVELOPMENT

- UAE Cybersecurity Council

مجلس الأمن السيبراني
CYBER SECURITY COUNCIL

- Department of Culture and Tourism

دائرة الثقافة والسياحة
DEPARTMENT OF CULTURE AND TOURISM

Figure 1: Participating Government Entities

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1 The World as It Stands Today

1.1 Why Address the Human-AI "Light Workforce" Paradox Now?

Driven by actors such as the DGE, Abu Dhabi's digital acceleration is evident in the modernisation of its public sector capability. With over 95 per cent of the Emirate's 30,000 government employees having completed AI training, the DGE is committed to AI literacy as foundational universal prerequisite rather than a specialist skill.

DGE's mandate extends beyond deploying new technology to include fostering human-centred digital transformation, capability-building and talent management across government. For example, it has created new Chief Digital and AI Officer roles in every public entity to embed AI responsibly and build public trust in its use. These actions reflect its core conviction that, even as AI automates routine tasks, humans must remain at the centre of decision-making and service delivery [2].

Why now?

The urgency stems from a confluence of local and global trends. The UAE leadership has long recognised the strategic importance of AI, being among the first to appoint a Minister of State for AI in 2017 and launching thereafter a series of national strategies to harness it to drive competitiveness and growth.

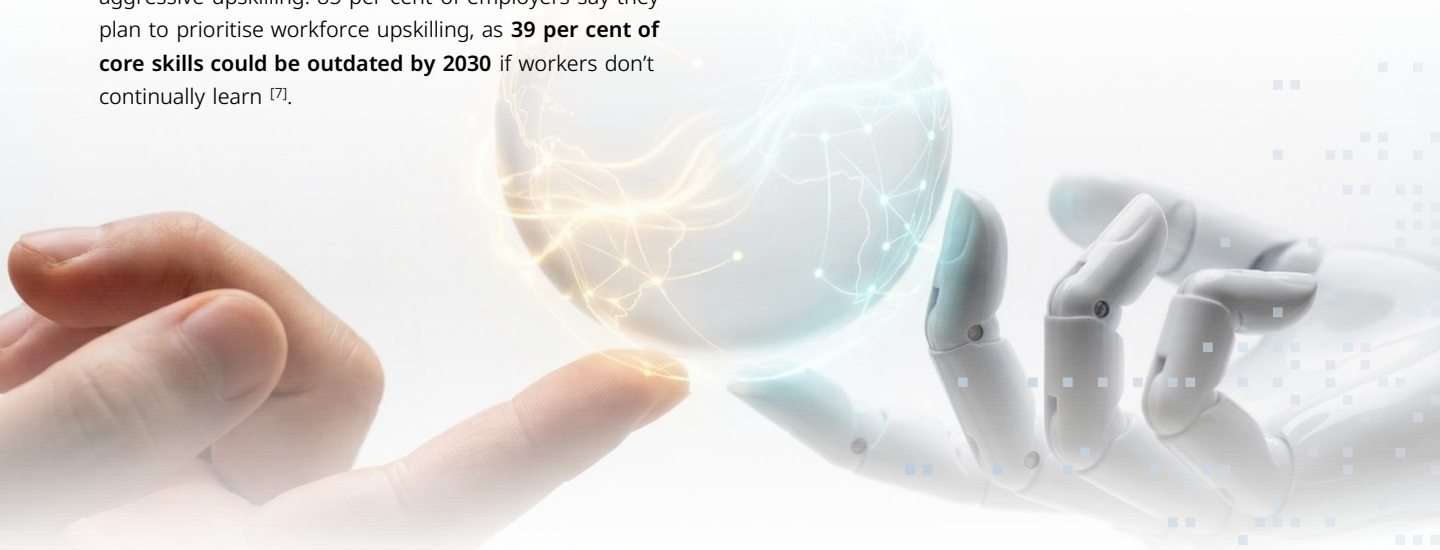
Abu Dhabi's own Vision 2030 economic plan calls for a diversified, knowledge-driven economy, requiring workforce **upskilling and productivity** gains **through digitisation** [4]. Broader UAE initiatives such as **UAE Vision 2031** and the National AI Strategy align technology adoption with human capital development, aiming to make the nation a leader in AI and to create high-quality jobs in the domain. DGE plays a pivotal role in translating these aims into action on the ground, from government AI training programmes through to innovation forums such as AI Majalis to engage communities to use AI responsibly [3].

Globally, AI's impact on work has reached an inflection point. The launch of advanced generative AI systems dramatically demonstrated AI's ability to perform creative and cognitive tasks previously thought safe from automation. Within six months of this, the use of generative AI tools had **nearly doubled** and currently 75 per cent of global knowledge workers report using some form of AI in their jobs. Private sector leaders overwhelmingly agree that adopting AI is now a business imperative [5]. By 2030, executives predict that only about one-third of workplace tasks will still be performed entirely by humans, meaning the majority of work activities could be handled by AI or AI-assisted processes [6]. This unprecedented shift promises big efficiency gains but also raises concerns about job displacement and skill obsolescence. The World Economic Forum's Future of Jobs 2025 report calls this wave of AI the most significant workforce transformation since the Industrial Revolution. It projects that while AI will **displace around 85-90 million roles, it will also create about 170 million new jobs globally by 2030,** especially in tech, analysis and sustainability fields. In net terms that is a positive outlook, but realising those new opportunities hinges on aggressive upskilling: 85 per cent of employers say they plan to prioritise workforce upskilling, as **39 per cent of core skills could be outdated by 2030** if workers don't continually learn [7].

Collectively these trends make it imperative for governments committed to harnessing AI such as Abu Dhabi to proactively address the Light Workforce Paradox.

On the one hand, AI automation promises to lighten the load on human workers, taking over repetitive tasks. Abu Dhabi government services are already pursuing this through platforms such as TAMM 4.0 to orchestrate services, pre-fill forms and process routine approvals, reducing administrative effort and allowing employees to focus on higher-value interactions with citizens and residents. This approach reflects to exploit AI in ways that yield higher-value from human effort, rather than as a narrowly focused tool for pursuing efficiency gains [3].

At the same time, this increase in automation raises a more fundamental question**: what remains uniquely human in the workplace of the future?** As AI systems take on a wider range of tasks, organisations must consciously redefine roles and invest in human capabilities that technology cannot replicate. DGE's Director General of Strategic Affairs and Foresight, H.E. Ruba Al Hassan, articulates this challenge explicitly: "Spotting trends is the easy part; the real work lies in building systems that prepare our people for what's next to thrive in the future and to put people at the centre of public service transformation" [3]. In practical terms, Abu Dhabi's position is clear: technology is intended to strengthen human capital, not render it obsolete. A successful AI-enabled government depends on a workforce whose capabilities are amplified rather than substituted by it. This report therefore examines **human-AI symbiosis** as a strategic means of harnessing the value contribution of humans in AI-enabled workplaces and how this could become a strategic advantage for Abu Dhabi and the UAE.



1.2 How Human-AI Collaboration is Evolving Locally and Globally?

Global Overview - AI in the Workplace:

Around the world, workplaces are entering a new era of human-AI collaboration. Advances in generative AI and automation are enabling machines to perform tasks that range from drafting reports and writing code to analysing data and conversing with customers. The immediate impact has been a dramatic increase in productivity tools available to workers. In a recent global survey, **three out of four employees** said they already use AI at work and the vast majority credit it with saving time and boosting their creativity and focus. In government, the pace and pathway of adoption differ: value must be realised with public accountability, equity obligations, security requirements and formal assurance, not just in terms of speed or efficiency. Crucially, many employees are not waiting for top-down direction, **78** per cent **of AI users bring their own AI tools to work** ("BYOAI") to help cope with high workloads. This organic adoption speaks to AI's perceived value as an assistant.

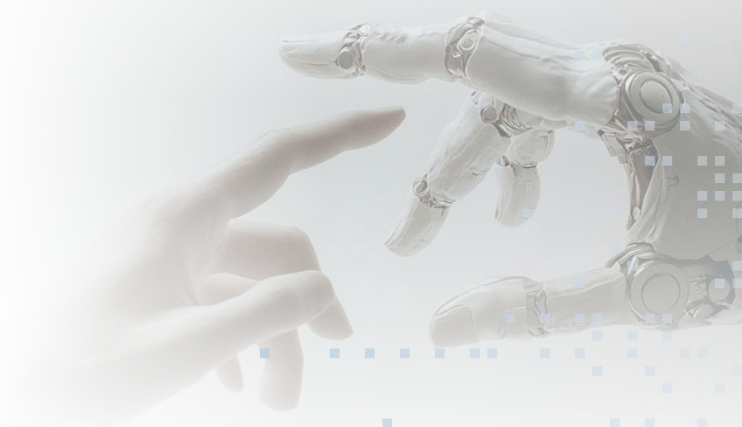
This trend highlights both the urgent need for formal governance and an opportunity to channel organic adoption into more secure and transparent systems. Regarding governance, over half of workers worry that using AI for important tasks could make them appear replaceable. Without clear guidance, employees may hide their AI use, missing the broader benefits of strategic AI integration and risking data security. Organisations are thus pressed to develop policies and training so that AI is embraced in an open, secure and collaborative manner [5].

Workplace Automation and Augmentation:

The impact of AI differs greatly across job types. Generally, AI excels at tasks that are routine, rules-based, or involve processing large datasets, often outpacing humans in speed and accuracy, while struggling with tasks requiring dexterity, complex judgement, or social interaction. For example, a Microsoft research study on generative AI found roles such as translators and data entry clerks are highly susceptible to automation (since much of their work involves handling text or numbers), whereas occupations such as **nursing assistants, plumbers and teachers scored near zero on AI "applicability"**, their hands-on care, physical skills and personal interactions remain far beyond current AI capabilities.

In other words, AI is rapidly advancing in automating cognitive and repetitive digital work, but it remains limited in replacing roles that require **emotional intelligence, human adaptability and real-world physical presence** [8].

This dichotomy is already visible across sectors. In customer service, for instance, AI chatbots now handle the first line of routine inquiries, with human agents stepping in to handle complex or sensitive issues where empathy and nuanced understanding are essential. In medicine, AI diagnostic tools can analyse scans or suggest likely conditions, yet a doctor's expertise is needed to interpret results in context, communicate with the patient and make ethical care decisions. As such, the **ideal model** may **not** be **pure automation but augmentation,** with AI handling sub-tasks and providing recommendations, while humans supervise, validate and focus on what humans do best. A recent World Economic Forum analysis reinforces this view: rather than simply replacing jobs, new AI like generative models could **enable less-specialised employees to perform more advanced tasks,** effectively upskilling roles by expanding what a given worker can do (e.g. helping an accounting clerk draft a complex report, or a junior nurse to interpret data). This suggests a future where the overall capability of the workforce is augmented by training humans to exploit AI tools [7].



Generative AI and Decision Support:

One notable area of human-AI symbiosis is **augmented decision-making.** Modern AI systems can rapidly sift vast amounts of data and present options or predictions to aid human decision-making. In fields such as finance and policymaking, AI algorithms now flag patterns and forecast outcomes that would be near impossible to discern manually. However, AI cannot determine **what truly matters** in a decision, it lacks human values, contextual judgement, and accountability. In short, AI can be viewed as a powerful assistant, but not an infallible oracle. As Atlassian's AI Collaboration survey found, critical thinking and judgement are more important than ever: without human oversight, even accurate AI outputs can lead to misinformed actions [6]. By way of example, AI might recommend an investment based purely on statistical trends, but a skilled human is needed to weigh broader considerations (mission alignment, ethical implications, stakeholder impact) that lie beyond what the algorithms measure. Indeed, research confirms that **AI cannot reliably handle moral or ethical dilemmas,** these require human opinion and principles [9].

In practice, organisations are establishing processes where AI does the heavy analytical lifting, but **final decisions remain with humans.** A case in point is Abu Dhabi's use of AI in government service delivery: the TAMM 4.0 platform employs predictive decision-processing for routine approvals, even though it was actually designed explicitly to **free up human employees to concentrate on higher-value, complex interactions** that need empathy or discretion [3]. This balance: algorithms for efficiency, humans for insight and responsibility, exemplifies augmented decision-making. Going forward, we can expect AI to become an ever-present 'second pair of eyes' in decision processes, flagging anomalies or opportunities that a human might miss. The challenge for organisations will be cultivating the ability of their employees to interpret, critically question and **integrate AI insights to formulate sound judgement calls**, so that human intuition and ethical reasoning remain a necessary layer on top of **AI analytics in decision-making** [6]**.**

Emotional Intelligence and the Human Touch:

If algorithms handle more cognitive tasks, human roles can focus more on exploiting their emotional and social capabilities. Studies indicate that **demand for emotional intelligence (EQ) skills will rise by 26** per cent **by 2030,** outpacing demand for many narrow technical skills. The reason is simple: AI, no matter how advanced, cannot truly replicate human empathy, relationship-building and cultural understanding. As workplaces become more automated and digitally mediated, these capabilities which are essential for innovation and performance, are becoming harder to sustain. Indeed, the current state of some organisations moving towards automation shows that **human connection is at risk of being diluted**. Hybrid work, digital communication and AI-driven processes, while efficient, can erode the informal interactions and trust-building that hold teams together. This has implications for both morale and output: if employees feel like cogs in an AI-powered machine, disengagement and turnover may rise [10].

Consequently, forward-looking employers are re-focusing on culture and coaching. They recognise that **AI can automate tasks, but it can't build culture or motivate teams** [10]**.** In the Abu Dhabi government context, emotional intelligence is being actively cultivated as a core leadership competency, for example, DGE's training programmes and GovAcademy include modules on communication, empathy in service delivery and collaborative problem-solving.

Leading global firms are investing in soft-skill development to complement technical AI training. The idea being to create **"centaur" teams** (human + AI pairs) where, for example, an AI analyses user feedback sentiment and a human customer service manager applies that insight to more empathetically engage with the user.



We see early evidence that organisations prioritising this human touch are thriving. A recent MIT Sloan study introduced the E.P.O.C.H. framework to categorise uniquely human competencies that machines struggle with. EPOCH stands for **Empathy & emotional intelligence (E), Presence & collaboration (P), Opinion & ethical judgement (O), Creativity & imagination (C) and Hope & visionary leadership (H)** [9].

These facets, from building trust and networks to providing ethical guidance and inspiring teams, form the foundation of tasks where humans will always have an edge. Notably, the MIT study found that **new tasks emerging in jobs between 2016 and 2024 skew heavily toward EPOCH skills,** while tasks being phased out were more routine [9]. This confirms that even as AI spreads, the nature of many jobs is shifting rather than disappearing, roles are evolving to emphasise the human abilities that complement AI. An emergency management director, for example, now spends less time on manual data gathering (AI can help with that) and more on strategic planning and community coordination, which rely on human leadership and empathy. In summary, emotional and social intelligence remain essential in human-AI workplaces. They help ensure that AI technology enhances outcomes without dehumanising work.

Abu Dhabi and UAE Progress:

Locally, Abu Dhabi's public sector provides a microcosm of these global trends. Under DGE's guidance, the government has moved from experimenting with AI to scaling it across dozens of services [3]. Critically, this has been paired with intensive workforce development. Beyond the headline figure of 30,000 staff trained in AI basics, DGE has launched initiatives such as an **AI Accelerator Programme** for advanced upskilling [11]. These efforts reflect a philosophy of **"AI augmentation, not replacement."** For instance, DGE internally piloted an **AI-powered 'Objective Builder'** tool that automates parts of the employee goal-setting process, cutting tedious administrative work, while managers remain in charge of mentoring and evaluating performance.

Similarly, Abu Dhabi government's AI-driven recruiting platform can screen candidates faster, but final hiring decisions still rely on human interview panels. Such examples show how Abu Dhabi is reshaping roles, letting AI handle repetitive or data-heavy components and freeing up humans for relational, nuanced analysis and creative contributions.

The UAE's private sector is following suit, especially in competitive industries such as banking and telecom. Organisations are appointing AI champions and ethics officers, rolling out company-wide AI literacy courses and redesigning workflows to integrate AI assistants. AI adoption is on the rise in the UAE, supported by national initiatives that frame it as an enabler of productivity, service quality and public value, alongside high digital adoption across society.

Nonetheless, challenges remain. First, as seen internationally, demand for advanced AI and data science talent continues to outpace supply, reinforcing the need to strengthen domestic capability pathways while selectively leveraging global expertise. Second, making human-AI collaboration work in practice: clarifying where judgement is needed, keeping accountability visibly human and ensuring that staff trust how AI supports decisions. This highlights the need for continued investment in local STEM education and specialised training, updating policies and regulations to keep pace with AI, ensuring data privacy and selective use of AI. Without these foundations, adoption risks becoming uneven, benefits failing to scale and the workforce experiencing AI as pressure rather than support.

In this context, Abu Dhabi's present trajectory toward an AI-enabled state may therefore be characterised as ambitious, underpinned by capability-building and explicit safeguards to preserve trust and fairness and meaning in roles.



1.3 Why Aligning Human-AI Transformation with DGE's Mission and Abu Dhabi's Vision is Critical?

Abu Dhabi's pursuit of the Light Workforce Paradox to maximise the benefits of technology while preserving human value in the workplace is not a tech experiment in isolation, it is a strategic necessity intertwined with the Emirate's development goals, DGE's mission and national priorities such as Vision 2030:

Empowering Abu Dhabi's Workforce and DGE's Mandate:

DGE's core mission is to enable a future-ready government, which explicitly includes **empowering human talent through digital means** [12]. By redefining roles in the age of AI, DGE is helping to position Abu Dhabi's public servants to thrive in the shift to automation. This aligns with the department's human capital programmes (GovTalent and GovAcademy) that focus on developing leadership, skills and a productive work environment [11]. The ongoing AI training of government employees is a flagship example of capability-building that serves this mission [3].

As the government becomes "AI-native", the value of human employees will come not from doing routine processes (which AI can handle) but from **overseeing, interpreting and innovating on top of AI.** This shift is crucial to maintain employee engagement and effectiveness. It also fulfils DGE's commitment to human-centred transformation, ensuring technology enhances public services without diminishing the human touch. The outcome of which is expected to be a more motivated workforce, which DGE views as the foundation of excellent government service [11].

Takeaway

AI should remove low-value workload, while public servants remain responsible for judgement, oversight, and service quality.

Alignment with UAE Vision 2030 and National Strategies:

Abu Dhabi Economic Vision 2030 and the UAE's broader Vision 2031 framework both emphasise creating a competitive, knowledge-based economy. A digitally skilled, adaptable workforce is central to achieving those economic diversification targets [13] [14]. By investing in human-AI symbiosis now, Abu Dhabi is directly supporting these visions. For instance, Vision 2030 sets ambitious productivity and GDP growth goals. Harnessing AI can significantly boost productivity, but only if workers are trained to use AI effectively. The UAE's National AI Strategy (and the establishment of the Minister of AI) underlines an intent to be a global leader in AI by 2031.

The strategic goal here is not just about technology adoption, but about workforce transformation. Every UAE government initiative, from smart city projects to e-government services, relies on public employees to manage AI systems and innovate solutions where required. Therefore, Harnessing the **value** provided by humans in an AI world will serve to reduce the risk that the UAE's digital transformation leads to a skills vacuum. It also aligns with broader national priorities such as Emiratisation, as many future high-value jobs (data analysts, AI solution designers, etc.) are in sectors that the UAE wants its citizens to thrive in. By linking AI integration with Emirati human capital development, Abu Dhabi can increase their participation and contribution.

In short, empowering the existing and future workforce to work alongside AI will be key to Abu Dhabi achieving its 2030 economic and societal objectives. It is a strategy to **unlock the productivity gains** AI offers while sustaining high employment and human development.

Takeaway

Human-AI symbiosis is a workforce strategy that underpins national competitiveness, productivity, and long-term economic diversification.

Emotional Intelligence, Ethics and the Human Advantage:

A key pillar of Abu Dhabi's approach is doubling down on the uniquely human qualities that AI cannot replace. This is strategically relevant because those qualities: empathy, ethics, cultural intelligence, creativity, are critical to shaping perceptions of government's legitimacy and effectiveness. Abu Dhabi prides itself on having a citizen-centric model of governance; initiatives such as the 'majlis' community forums for AI reflect an understanding that trust and social cohesion are as important as technical prowess [3]. DGE's focus on emotional intelligence (EQ) in leadership training and performance management stems from evidence that high-EQ organisations innovate better and achieve greater staff and customer satisfaction [10].

As automation increases, the government will lean on employees' soft skills to handle complex interpersonal scenarios. For example, social workers informed by AI case-file summaries to tailor the focus of their empathy in client interactions. The strategic bet is that cultivating these human skills now will give Abu Dhabi's workforce a competitive advantage into the future. Globally, surveys show soft skills are often a gap in otherwise advanced organisations [10]. Abu Dhabi can differentiate itself by developing a more tech-savvy and emotionally intelligent workforce.

An ethical compass is vital in any public sector and DGE has embedded frameworks for responsible AI use (bias checks, transparency standards) in its digital strategy to ensure this [3]. But technology alone cannot ensure ethical conduct. That requires a workforce trained in ethical reasoning and empowered to question AI outputs.

Emphasising ethics and human judgement in AI deployments (for example, the mandate that AI usage should enhance, not replace human-centred service [3]) safeguards against the pitfalls of algorithmic governance. This approach reinforces Abu Dhabi's values and compliance with international norms. Positioning Abu Dhabi within this global landscape requires clarity about what is genuinely distinctive and what is not. Estonia is widely recognised for the depth of its digital public infrastructure; Singapore for the sophistication of its national AI governance architecture; Denmark for the quality of its social trust frameworks around technology. Each represents a different dimension of what responsible digital government needs to encapsulate.

What Abu Dhabi brings to this conversation is different in kind, not just degree. It is among a small number of jurisdictions where the political mandate for AI adoption, the institutional capacity to execute it and a stated commitment to maintaining human accountability within it are being pursued at scale and in parallel, rather than sequentially. The designation of Chief Digital and AI Officers across public entities, the sovereign investment underpinning Abu Dhabi's Digital Strategy 2025–2027, and the decision to treat AI literacy as a baseline requirement for public sector employment rather than a specialist credential: these are not incremental reforms. They are architectural choices about what kind of institution government should be in an AI-enabled era.

The question this report addresses: how to preserve human judgement, meaning, and accountability as automation scales, is one every government will eventually face. Abu Dhabi is confronting it now, with considerable institutional resources and political will,

and with a foresight programme oriented toward the deeper structural consequences of AI adoption rather than its immediate deployment cycle. Positioning it as a leader in humane technology.

Ultimately, investing in emotional intelligence and ethics isn't just altruistic; it will enhance the likelihood that Abu Dhabi's AI initiatives will succeed and be accepted socially, which is a strategic imperative.

Takeaway

Government legitimacy relies on human empathy, ethical judgement, and accountable decision-making, even as AI scales.



Adaptability and Lifelong Learning as a Way of Life:

The only constant in the AI era is change. Thus, adaptability and lifelong learning have had to become strategic priorities in workforce planning. The Abu Dhabi government recognises that today's in-demand skills, such as mastering an AI tool or data platform, might be partially automated tomorrow. DGE's response is to foster a continuous learning culture where upskilling is understood not as a one-time event but an ongoing journey [15]. This is directly relevant to Abu Dhabi's human capital development goals, such as those in the Education and Human Resources Vision 2030, which stress producing a flexible, resilient labour force. Concretely, DGE's GovAcademy and partnerships with e-learning providers aim to make reskilling accessible and routine for government employees.

By 2040, there are a number of reasons to expect that the most valuable workers will be those who have cycled through multiple skill acquisition roles and roles that have evolved. Already, the Future of Jobs reports estimate **60 per cent of workers will require retraining by 2027 to keep pace** [16]. Abu Dhabi's focus on lifelong learning may help to address this looming challenge.

It also ties into adaptability, not just of individuals, but of the public sector as a whole. For example, the government is encouraging a mindset of '**test and learn**' with AI: pilot projects, sandboxes and iterative scaling, rather than big-bang rigid plans.

Such organisational agility will be crucial as AI tech advances. By instilling adaptability, Abu Dhabi's public institutions can rapidly realign roles and processes as needed (for instance, if a new AI system changes how a department works, staff can quickly be retrained for new functions).

Promoting lifelong learning among citizens and residents, through initiatives such as the Mawaheb employment support centre [12], will help the broader Abu Dhabi workforce to remain relevant in the AI age, supporting social stability and economic growth. In summary, **continuous upskilling and adaptability represent strategic safeguards** for Abu Dhabi's workforce strategy, they will help to ensure that the Emirate is well positioned to navigate near-term disruptions arising from the incorporation of AI and seize long-term opportunities through to 2040 and beyond.

Takeaway

In an AI era, skills will decay faster; continuous upskilling is the core protection against disruption.



Securing Sustainable Human-AI Symbiosis (Looking to 2040):

Ultimately, addressing the Light Workforce Paradox aligns with Abu Dhabi's vision of sustainable, inclusive development. By 2040, AI and possibly even more advanced technologies (such as quantum computing or robotics) will be deeply embedded in every industry. Preparing now by redefining human roles serves multiple strategic aims. It supports social inclusion and help mitigate against technological unemployment by transitioning workers into new roles and mitigating inequality that could arise if only a few reap AI's benefits [8].

It also enhances Abu Dhabi's **economic resilience** a workforce adept at human-AI collaboration will be more productive and capable of creating new value (e.g. developing home-grown AI solutions, entrepreneurial ventures, etc.). There is a clear link to Abu Dhabi's goal of becoming a regional innovation hub; talent is the magnet for investment and companies will gravitate to locations with the best human capital.

Championing human value in the AI era aligns with the UAE's broader narratives around ethics in **tech-leadership**. For instance, through forums and collaborations, the UAE can share its model of AI governance that balances efficiency with humanity. Strategically, the Emirate is future proofing its labour market against shocks. If a disruptive technology emerges in 2035, a workforce conditioned to adapt, and re-skill will be equipped to handle it. As H.E. Omar Al Olama, the UAE's AI Minister noted, "Nations that embrace AI today will lead the world tomorrow" [16]; Abu Dhabi's twist is ensuring that its people are the ones leading AI, not the other way around. Addressing the Light Workforce Paradox aligns with the Emirate's long-term vision of prosperity; **AI drives progress alongside human values and talents driving AI**.

Takeaway

Preparing for 2040 means embedding AI in a way that strengthens inclusion, resilience, and public value, not just efficiency.



In conclusion, the challenge of redefining human value in human-AI symbiosis is far more than a technology management issue, it is a strategic pillar for Abu Dhabi's next 15 years of development. By aligning this transformation with DGE's human-centric mission, Vision 2030 and core principles such as lifelong learning and ethics, the Abu Dhabi government is crafting a blueprint for the future of work and digital transformation that is less about algorithms and more about people. As experts have noted, the ultimate ROI of AI will come from how it augments human potential. The government's strategy embraces this insight by investing in its workforce, enhancing their skills, preserving their well-being and elevating their roles in the transition to incorporate intelligent technologies. By addressing the Light Workforce Paradox, this seeks to ensure that the rise of AI yields more value, meaning and opportunity for its people by positioning them to thrive in a human-AI symbiotic future.

Takeaway

The ***Light Workforce Paradox*** reflects a shift in how human value and productivity are defined in an AI-enabled workplace. As automation absorbs routine tasks, human contribution increasingly lies in judgement, ethical oversight, emotional intelligence, and effective collaboration with intelligent systems rather than task execution alone.

In Abu Dhabi, this transition is being actively shaped through large-scale AI upskilling, new governance roles, and AI-native service platforms. By focusing on augmentation rather than replacement and embedding lifelong learning and human-centred capabilities into workforce development, DGE is redefining public-sector work so that AI enhances efficiency while elevating the strategic and relational role of human employees.



2 The Approach Guiding Our Exploration

The approach to the analysis that underpins this report was undertaken with the explicit goal of supporting strategic decision-making related to the development of AI in government rather than speculating or predicting what the future holds.

2.1 Focal Issue Selection Approach

The focal issue was identified through a structured, multi-stage process designed to ensure close alignment with Abu Dhabi's strategic priorities and DGE's mandate. The process began by establishing the overall context and scope. This included reviewing national strategic directions, defining the time-horizon, and setting trend categories for a horizon scanning exercise.

Within this framework, a scan of more than 140 global trends was conducted. These were assessed and synthesised into a refined shortlist of priority trends and emerging themes. The latter were then evaluated using a three-stage Delphi process involving foresight practitioners, academic experts, and DGE representatives. This process identified more than 20 potential focal issues, which were then narrowed down to priority topics in line with the direction of the leadership.

2.2 Report Development Approach

The following five-step approach was applied to analyse the future trajectory of the focal issue. This sequence was consistently applied to ensure that the analysis was both comprehensive and forward-looking, while remaining closely aligned to the strategic priorities of Abu Dhabi and DGE.

1. Establishing the Context

The analysis began with an assessment of the current landscape. Relevant national strategies, global developments, and system-level drivers were reviewed to explain why the topic is important today and why it is strategically relevant to Abu Dhabi and DGE.

2. Defining the Scope of Exploration

The scope was set by clearly defining the focal issue and establishing the boundaries of the system under review. The focal issue was informed by background research, horizon scanning, inputs from a Delphi expert panel and alignment with the leadership's direction. The institutional and geographic context was specified, and the exploration was structured across short-, medium-, and long-term horizons to ensure a consistent temporal perspective.

3. Scanning the Horizon

A structured horizon scan was conducted using established foresight tools such as PESTEL, future radar, drivers-of-change analysis, and uncertainty mapping. This step identified key forces shaping the future, emerging signals, and uncertainties most likely to influence outcomes.

4. Developing Alternative Futures

The two most critical uncertainties were used to construct a scenario matrix, generating four distinct alternative future scenarios. These scenarios were co-developed in stakeholder workshops, with one identified as the preferred future for further focused discussion and exploration.

5. Articulating Strategic Implications and Future Outlook

Insights from across the foresight process were synthesised to identify strategic implications. These were developed through expert analysis and workshops involving participating government entities and strategic partners. Key risks, potential mitigating actions, and opportunities were identified, and a set of strategic options was outlined to support informed decision-making, early positioning, and preparedness under conditions of uncertainty.

3 Setting the Boundaries of Exploration

Scope Overview

The Light Workforce Paradox refers to the growing structural tension in AI-enabled governments where advances in automation reduce the volume of human labour required, while simultaneously increasing the strategic importance of human judgement, accountability and institutional leadership. As Abu Dhabi advances toward becoming the world's first fully AI-native government by 2027, the distinct value of human capability must be redefined. How government organisations and the broader economy can preserve human agency, career meaning and social inclusion as automation reshapes labour markets. This focal issue directly aligns with DGE's mandate to build a productive, future-ready workforce while maintaining public trust and social resilience. [18] [19] [20]

Abu Dhabi has already deployed over 100 AI use cases across 40+ government entities, with aims to automate 100 per cent of government processes, and over 95 per cent of government employees having received AI training. Automation of these processes does not imply the removal of human accountability or oversight. Without deliberate role redesign, capability development and change management, automation could lead to uneven capability distribution across the workforce, reinforcing concentration of advanced skills in a limited set of roles and creating heightened transition pressure for others. The focus must shift from task automation to human-AI symbiosis, where humans and systems coexist as complementary partners, not replacements. [18] [21]

This Includes

- Human-AI role delineation within government operations
- Workforce design, capability evolution and judgement preservation
- Accountability and oversight in AI-mediated decision environments
- Institutional resilience and public trust in automated governance
- Long-term sustainability of human contribution in an AI-native state

Focal Issue

How Abu Dhabi's government defines and sustains human value, judgement and accountability within public-sector institutions, while navigating the structural challenges introduced by AI as it becomes increasingly embedded across government operations.

Geographic and Institutional Context

The primary focus of this report is DGE, with relevance to the wider Abu Dhabi's government ecosystem. The UAE federal context is considered where it directly shapes governance structures or policy mandates. Global developments are referenced as contextual signals to inform uncertainty exploration, rather than as prescriptive benchmarks.

Time Horizons

The temporal scope of this report is structured around three-time horizons to support scanning, scenario development and implications analysis. These horizons do not represent forecasts, linear progression, or predetermined outcomes. Instead, they provide a consistent temporal lens for examining emerging signals, exploring alternative futures and considering how uncertainty and change may manifest across near-term, medium-term and longer-term contexts.

Time Horizon	Focus
Horizon 1 (H1) **2026-2030**	Focuses on developments that are already emerging or gaining traction. This horizon captures near-term change that unfolds within existing systems, policies and institutional structures. It is used to examine how current arrangements adapt, respond, or are stretched by evolving conditions.
Horizon 2 (H2) **2031-2035**	Explores deeper shifts where existing systems and assumptions may no longer be sufficient. This horizon is used to consider alternative ways institutions, roles and models could evolve as pressures accumulate and incremental adaptation becomes less effective.
Horizon 3 (H3) **2036-2040**	Examines longer-term change that may involve fundamental shifts in how systems are organised, governed, or understood. This horizon is used to explore emerging values, new organising principles and potential discontinuities beyond current structures.

Table 1: Focus of time horizons

4 The Early Whispers of Tomorrow

4.1 PESTEL Analysis

The following PESTEL analysis examines the external political, economic, social, technological, environmental and legal factors shaping the focal issue context. The analysis does not seek to predict outcomes or prescribe responses; rather, it provides a structured lens for understanding the forces and constraints that frame the focal issue and inform subsequent scanning, scenario development and implications analysis.

PESTEL Dimension	Key Factors
Political	**Public-Sector Leadership and Mandate** Abu Dhabi's political leadership has positioned AI adoption as a core enabler of government effectiveness, competitiveness and service excellence. Abu Dhabi's Digital Strategy 2025-2027 positions AI integration as a centrepiece of public sector modernisation, backed by AED13 billion investment to make Abu Dhabi "the world's first fully AI-native government" by 2027. This provides a strong top-down mandate for automation and digital enablement, while simultaneously raising expectations for responsible governance, institutional accountability and public trust. **Workforce Stewardship and Social Stability** As AI adoption accelerates across government, political responsibility increasingly extends beyond efficiency gains to include workforce cohesion, career continuity and social stability. Ensuring that workforce transformation does not undermine confidence in public employment or national workforce strategies is a relevant political consideration. **Institutional Legitimacy** In principle, political legitimacy is closely linked to visible human accountability in decision-making. As AI systems assume greater operational and analytical roles, maintaining clear lines of responsibility and human oversight becomes essential to sustaining trust in government institutions.

Globally, regulatory frameworks are emerging

The EU AI Act mandates risk-based governance and human oversight for high-risk systems, particularly in public administration and employment, and limits fully autonomous decision making by requiring meaningful human review and validation. In parallel, the UAE's National AI Strategy and AI Charter emphasise human-centric AI, transparency, accountability and responsible use, providing a policy foundation for aligned and proactive governance in Abu Dhabi.



Economic

Productivity and Efficiency Gains

AI-enabled automation presents significant opportunities to improve productivity, reduce administrative burden and optimise resource allocation within the public sector. These gains, however, may not be achieved consistently across all workforce functions and roles.

Human Capital Reallocation and Reskilling

Human judgement, coordination, oversight and strategic interpretation remain essential even as routine and semi-routine tasks are automated. The economic challenge lies in redeploying human capital effectively rather than reducing workforce participation.

Cost of Capability Transition

While automation may reduce long-term operational costs, short- and medium-term investments in reskilling, role redesign and organisational adaptation introduce transitional economic pressures. Failure to manage these transitions risks eroding the economic benefits of automation through inefficiency and capability gaps.

Talent Economics

Skills gaps are driving wage premiums for in-demand roles. Roles requiring advanced AI and data capabilities command significant salary increases, with demand far outpacing supply. This creates economic opportunity for upskilled workers but also widening inequality. Workers in smaller firms or slow-moving industries lack access to upskilling, while those in tech-forward organisations surge ahead.



Social

Workforce Identity and Purpose

Public-sector employment in Abu Dhabi carries strong associations with stability, purpose and national contribution. As AI alters job content and reduces direct human involvement in certain functions, preserving a sense of meaning, contribution and professional identity becomes a central social concern.

Equity and Inclusion

Uneven access to advanced skills and AI fluency risks creating stratification within the workforce. Without deliberate design, automation may concentrate influence and opportunity among a small group of specialists, undermining inclusivity and cohesion.

Societal Expectations of Human Governance

Citizens and residents continue to expect human judgement, empathy and accountability in government decision-making. A perceived reduction in human responsibility under automation risks weakening confidence in public institutions, especially when errors occur.

Technological

Maturity and Reliability of AI Systems

While AI capabilities continue to advance rapidly, their performance remains dependent on data quality, system design and contextual understanding. Over-reliance on automated outputs without human interpretation introduces operational and governance risks because AI can sometimes make mistakes.

Human-AI Role Configuration

The integration of AI into government operations reshapes how decisions are made and who is responsible for outcomes. Defining appropriate boundaries between automated processes and human judgement is a persistent technological and organisational challenge.

Dependence on External Technologies

Increased reliance on AI platforms and advanced digital tools heightens dependency on external vendors and technologies. This raises questions around control, resilience and the preservation of internal institutional knowledge and capability.

Infrastructure Readiness

Abu Dhabi's sovereign cloud infrastructure provides technical foundation for scalable, locally controlled AI deployment. The GCC ICT readiness index (91.7-100) is among the world's highest. However, some legacy systems exist, and integration of old and new infrastructure remains operationally complex.

Environmental

Digital Footprint and Resource Use

Automation and AI adoption can improve the efficiency with which resources are used. At the same time, increased reliance on data centres and compute-intensive systems introduces new environmental considerations related to energy consumption.

Sustainable Workforce Models

Remote work, digital collaboration and AI-supported processes may reduce commuting and physical office requirements, contributing indirectly to environmental sustainability. Realising these benefits requires deliberate operating policies and enabling infrastructure (e.g., hybrid work norms, digital collaboration standards and secure remote access).

Legal

Accountability and Liability

Existing legal frameworks assume clear human agency in decision-making. As AI systems increasingly inform or execute decisions, determining accountability for outcomes becomes more complex, particularly in cases of error or harm.

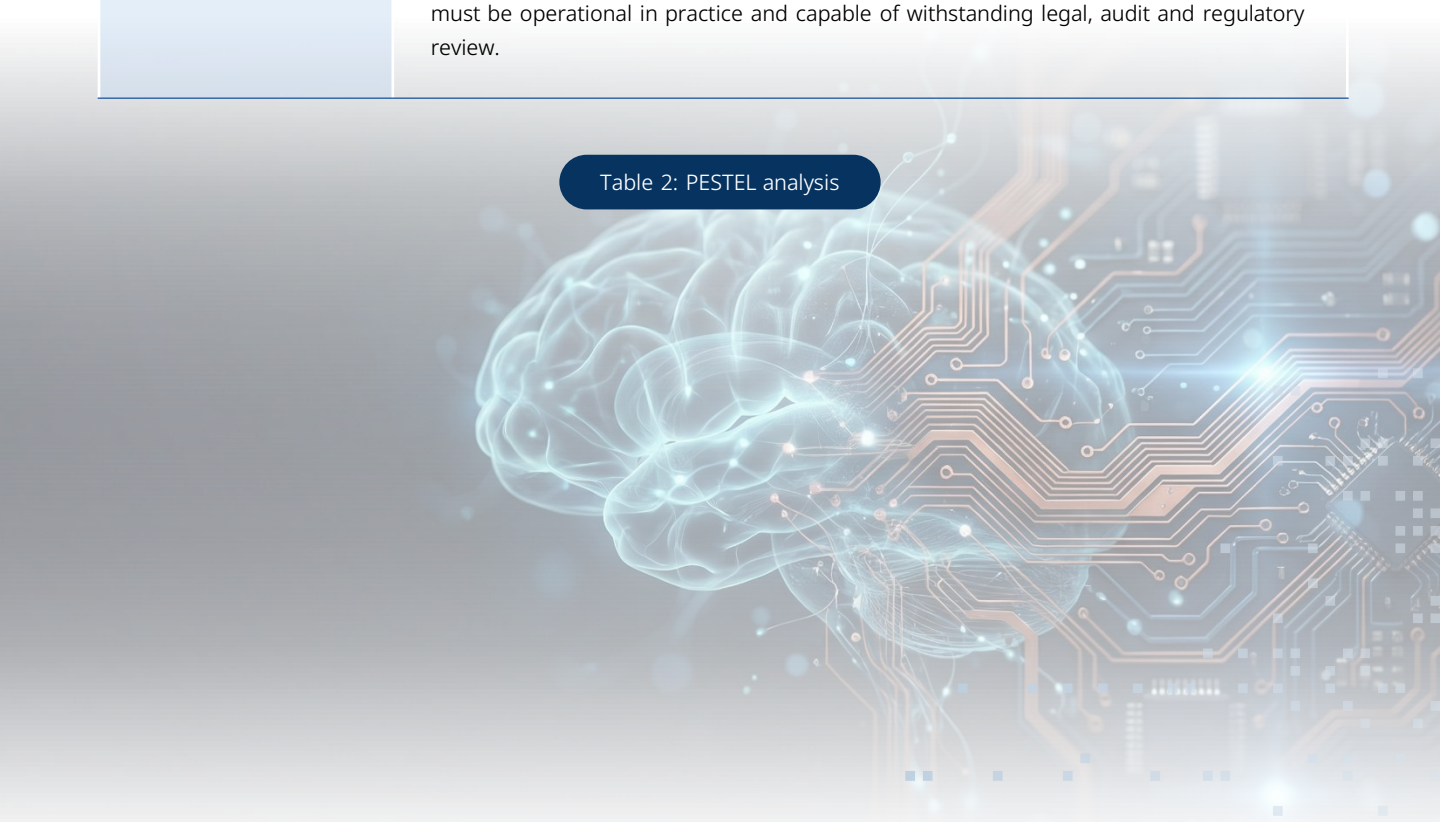
Employment and Role Definitions

Shifts in job content and responsibility challenge traditional role definitions, job classifications and employment frameworks within the public sector. Legal clarity is required to ensure fairness, transparency and consistency as roles evolve.

Oversight and Compliance

Ensuring that AI-enabled operations comply with existing laws, regulations and ethical standards requires new forms of oversight and documentation. Oversight mechanisms must be operational in practice and capable of withstanding legal, audit and regulatory review.

Table 2: PESTEL analysis



4.2 Future Radar

The following radar serves as a foresight instrument by mapping key emerging and evolving signals that will shape the future of the workforce. It captures a mix of strengthening trends, weak signals and potential wildcards influencing how work is organised, experienced and valued over time. Spanning the 2026-2040 horizon, these signals reflect the growing tensions between technological acceleration, human augmentation, wellbeing and purpose. These represent the core dynamics underpinning the Light Workforce Paradox.

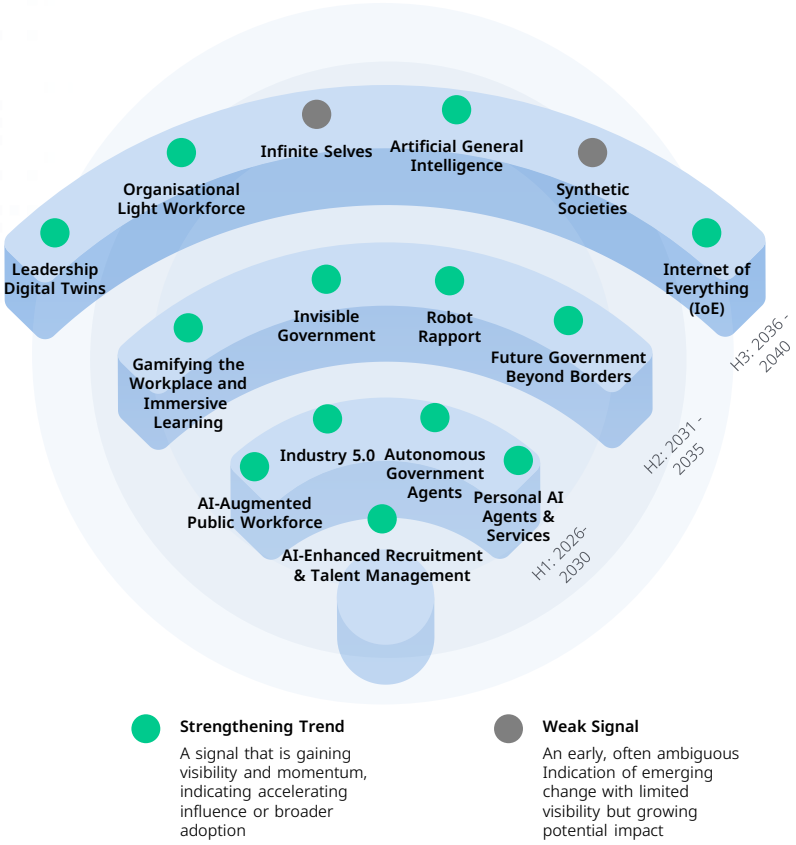


Figure 2: Future Radar

Signal	Description
AI-Augmented Public Workforce [22]	Governments shift from fixed roles to capability-based teams using skills taxonomies micro-credentials and AI copilots Mapping real-time skills to tasks can improve the quality and speed of decision.
AI-Enhanced Recruitment and Talent Management [23]	AI automates sourcing, screening and assessment while predicting performance and attrition. This enables faster hiring and reduces human prejudices in recruitment decisions.
Artificial General Intelligence, AI's Third Wave [24]	AI may evolve beyond narrow task execution toward systems that reason generalises and understand causality If AGI emerges it could transform productivity governance and risk requiring new controls accountability and societal adaptation.
Autonomous Government Agents [25]	AI agents execute multi-step workflows independently across services compliance procurement and support They learn from feedback reduce manual processing and enable scalable operations while increasing needs for oversight auditability and safety limits.
Future Government Beyond Borders [25]	Governance increasingly operates across borders to address shared risks such as climate pandemics cyber threats migration and digital trade Shared digital infrastructure interoperable rules and joint institutions enable services and protections regardless of location.

Signal	Description
Gamifying the Workplace and Immersive Learning [27]	Game mechanics and XR training boost engagement skills uptake and performance Simulations enable safe practice of complex procedures while challenges and rewards motivate continuous learning reshaping how organisations train collaborate and retain talent.
Industry 5.0 [24]	Industry 5.0 rebalances automation with human wellbeing combining robotics and AI with human creativity and judgement The aim is safer more personalised resilient production where technology augments people rather than replacing them.
Internet of Everything (IoE) [24]	IoE connects people processes data and devices into an intelligent network enabling real-time optimisation new services and new markets while increasing governance needs for interoperability cybersecurity and trusted data stewardship.
Leadership Digital Twins [28]	Digital replicas of leaders' model decision patterns behaviours and performance using organisational data They support coaching succession planning and scenario testing while raising issues of consent transparency surveillance and the limits of replicating judgement.
Personal AI Agents and Services [24]	Personal AI agents deliver tailored support across tasks services and interactions They increase convenience and productivity but raise risks around privacy emotional dependency manipulation and accountability when agents act or decide on users' behalf.
Invisible Government [29]	Government becomes proactive and embedded in life events Services trigger automatically using contextual data and predictive analytics reducing forms and friction while increasing dependence on data quality consent transparency and safeguards against exclusion or error.
Synthetic Societies [30]	AI generated virtual populations simulate behaviour markets and social dynamics to test policies before deployment They enable safer experimentation and foresight but rely on data validity bias controls transparency and ethical limits on simulation realism.
Organisational Light Workforce [31]	Organisations operate with minimal human structures supported by networks of AI agents coordinating work managing operations and executing decisions This can improve speed and scalability, while also focusing governance on accountability, role redesign and human oversight.
Infinite Selves (The Culture of Forked Identity) [32]	People maintain multiple AI supported identities and digital twins for parallel roles across work learning and civic life Identity becomes plural creating new norms and risks around authenticity responsibility consent and accountability across contexts.
Robot Rapport [33]	As robots enter workplaces and daily life trust comfort and ethical interaction become central Building rapport requires behavioural design safety and agency rules and social norms positioning robots as collaborators rather than tools.

Table 3: Signals Descriptions

4.3 Drivers of Change

Key uncertainties define where the future of human-AI symbiosis remains most unpredictable. They highlight the forces that could significantly reshape productivity, skills, governance and workplace culture, but also whose direction, pace, or intensity cannot be reliably forecast. These uncertainties point to the areas where strategic choices today may lead to very different labour, economic and societal outcomes by 2040.

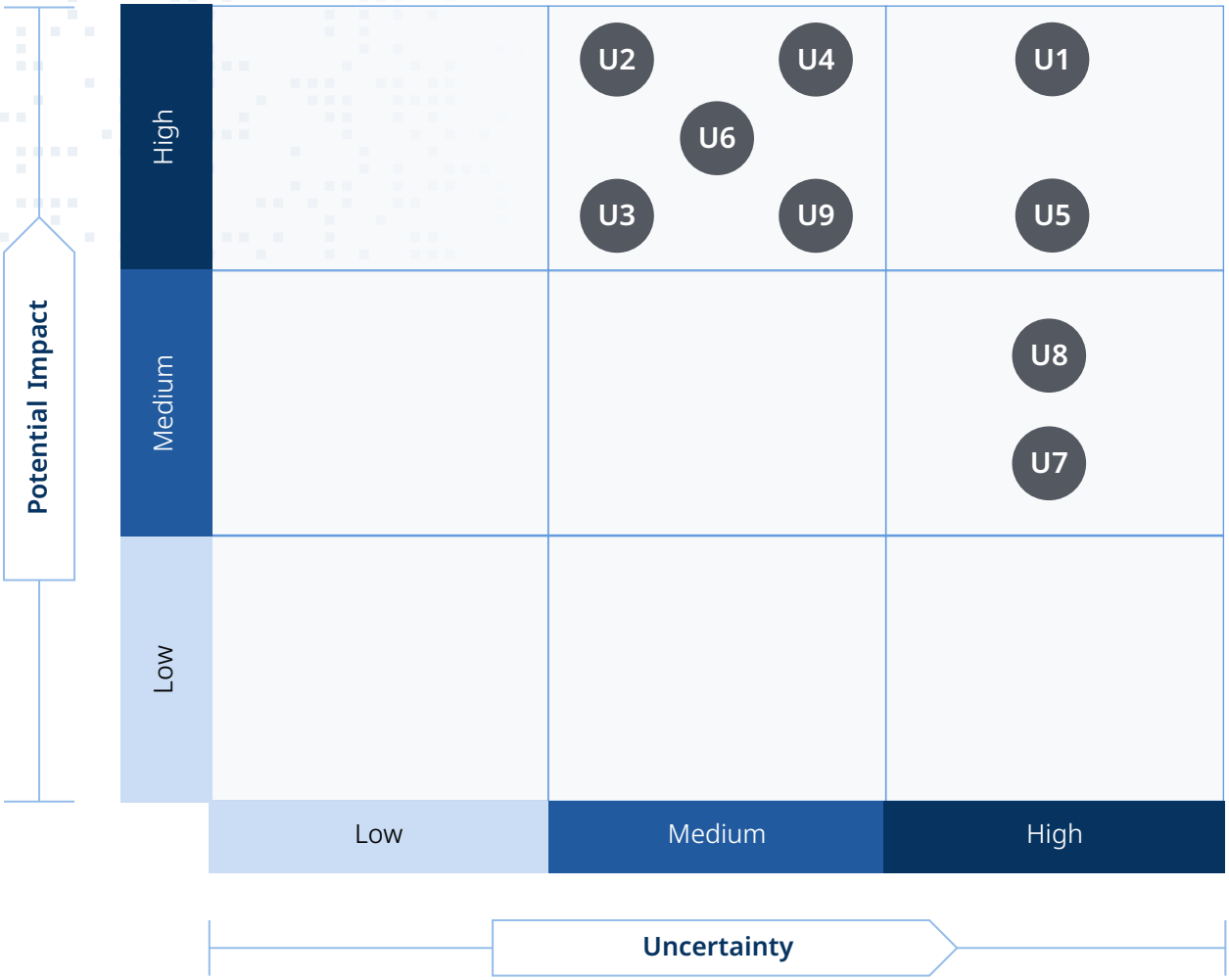
In Abu Dhabi's context, they capture potential shifts in how regulation governs AI-enabled labour markets, how authority and value concentrate across global and local AI ecosystems, how organisations redesign roles around augmented intelligence and how citizens, residents and employees perceive trust, autonomy and fairness in AI-supported decision-making. They also reflect deeper tensions, such as balancing automation with human meaning, accelerating innovation without eroding wellbeing and navigating a workforce where skills, power and responsibilities are continuously redefined.

Description	Impact	Uncertainty Level
U1: Pace and Extent of AI-Driven Automation It is highly uncertain how quickly AI will automate workplace tasks and to what extent it will replace versus augment human labour. Estimates vary widely: current academic research suggests that 40-70 per cent of tasks globally could technically be automated, which, depending on adoption rates, may translate into a substantial portion of current work hours being automated by 2030 [34]. Some experts note the range of possible AI futures spans from a plateau in capabilities to the emergence of artificial general intelligence, making precise forecasts impossible [35].	**High** The speed of automation can affect employment levels and economic productivity, a rapid automation surge could displace millions of workers or, alternatively, boost output significantly [34].	**High** The trajectory is unclear, contingent on technical breakthroughs, adoption costs and social acceptance [35].
U2: Net Impact on Jobs and Employment Whether AI ultimately creates more jobs than it destroys or vice versa remains unresolved. Projections diverge: the World Economic Forum expects a net decline of 14 million jobs globally over the next five years due to concurrent technology adoption and economic trends [36], while other analyses suggest new labour demand (particularly in rapidly expanding sectors such as renewable energy, energy efficiency and green infrastructure) could offset many losses [37].	**High** Mass unemployment or a booming new job market would have profound societal effects on income, inequality and social stability [36].	**Medium** Predictions vary and depend on factors such as economic growth, innovation in job creation and policy responses.
U3: Workforce Reskilling and Skills Transformation A critical uncertainty is society's ability to upskill and retrain workers fast enough to meet the changing skill demands of AI-augmented workplaces. Nearly half of all employee skills (44 per cent) will need to change by 2027 [36], yet there is scepticism about whether traditional retraining programmes can keep pace with AI-driven displacement [35]. Companies are already concerned: 60 per cent of employers fear skills gaps in their workforce [36].	**High** Successful reskilling could empower workers to complement AI, whereas failure would lead to widespread job mismatches and structural unemployment [35] [36].	**Medium** It is not clear that current education and training systems can scale up effectively; evidence of past retraining efficacy is mixed [35].

Description	Impact	Uncertainty Level
U4: Policy and Regulatory Response to AI in Work Governments and institutions might respond very differently to AI's workforce impacts, ranging from proactive measures (e.g. job guarantees, universal basic income, or strong AI governance) to laissez-faire approaches. As of now for certain governments, policy may be lagging behind technology: few concrete regulations addressing AI's workplace threats exist [34], though debates are intensifying on balancing innovation with labour protections [38]. Whether governments will enact bold interventions (such as social safety nets or incentives for human-AI collaboration) or allow market forces to run their course remains uncertain.	**High** Effective policies could mitigate job displacement and help facilitate sharing of AI's gains, while inaction or poor policy could exacerbate unemployment and inequality [38].	**Medium** While it's clear that "urgent action" is needed [38], political will and consensus vary greatly across countries, making outcomes hard to predict.
U5: Human Acceptance and Trust in AI Colleagues and Managers The extent to which people embrace working with AI or resist it is uncertain. In a scenario of high acceptance, AI could become a trusted assistant enhancing human productivity; in a more pessimistic scenario, fear and mistrust of AI (or resentment towards "AI bosses" and algorithms) could impair adoption. Surveys already show many workers are worried AI's impact on jobs will be negative [34] and issues such as AI-driven workplace surveillance or loss of worker autonomy could fuel pushback [34] [38].	**High** If workers distrust AI it stands to reason that they will be slow to implement it and potential productivity gains might not fully materialise, whereas broad acceptance could accelerate human-AI symbiosis and yield efficiency and quality improvements [38].	**High** Public sentiment can shift with cultural attitudes and visible successes or failures of AI systems in the workplace.
U6: Economic Inequality and Distribution of AI's Benefits AI has the dual potential to greatly boost productivity and to concentrate wealth. A key uncertainty is whether the gains from AI will be broadly shared or accrue mainly to a small group of tech-savvy elites and capital owners. Without interventions, there is a risk that AI-driven automation could widen income inequality and create "winner-takes-most" markets [34]. Alternatively, policies such as progressive taxation, profit-sharing, or universal basic income could redistribute gains and cushion displaced workers. This uncertainty ties into the social contract: will AI prompt a rethinking of how wealth and income are derived from work?	**High** Extreme inequality can lead to global social risk and disengagement, reduced consumer demand and political instability, whereas equitable growth could enhance overall prosperity [34].	**Medium** Economic models show divergent outcomes, and it largely hinges on policy and power dynamics (uncertain, but certain structural trends such as skill premiums are already evident).
U7: Emergence of New Roles and Redefinition of Human Work It is uncertain which new occupations and industries will emerge to absorb workers displaced by AI. Historically, technology has created entirely new fields of work; for example, the rise of the digital economy spawned roles such as app developers and data scientists. In the AI era, we might see growth in jobs that uniquely require human empathy, creativity, or complex problem-solving. Fields such as education, healthcare and green technology are expected to gain millions of jobs [36]. However, the speed and scale of new job creation relative to job destruction are unknown.	**Medium** New jobs could provide employment and purpose for future workers, but if they require very different skills, the transition could be turbulent.	**High** Predicting future jobs is notoriously difficult, dependent on innovation pathways and societal needs that may evolve (e.g. growth of creative and caregiving professions versus entirely new tech fields).

Description	Impact	Uncertainty Level
U8: AI Identity and Emotional Presence in the Workplace It remains uncertain how secure, robust and controllable advanced AI systems will be as they become deeply embedded in work, infrastructure and decision-making, and as they increasingly present themselves through human-like interfaces, identities and emotionally responsive interactions. On one end of the spectrum, organisations succeed in building resilient AI with strong safeguards, rigorous incident reporting and international norms for AI safety and cybersecurity, alongside clear requirements for transparency, labelling and human accountability when AI systems interact with employees or act on their behalf. On the other, we see frequent accidents, adversarial manipulation and AI-enabled cyberattacks that disrupt workplaces, supply chains and critical services, compounded by risks associated with AI systems that can mimic human authority, create deceptive "presence", or influence behaviour in ways that are hard to detect or contest. The OECD's AI Incidents Monitor shows a sharp rise in documented AI incidents and hazards since the mainstreaming of generative AI, alongside efforts to strengthen common reporting and learning frameworks [39]. In parallel, digital security experts highlight how advanced and "agentic" AI tools can automate large parts of sophisticated cyberattacks, raising systemic risk and prompting governments to consider more intrusive digital security measures. As AI systems move from producing outputs to initiating actions and engaging people directly, the uncertainty is not only whether they remain technically secure, but whether their evolving identity, perceived agency and emotional cues introduce new trust, accountability and governance risks in the workplace.	**Medium** If advanced AI systems remain fragile or easily weaponised, organisations may face repeated disruptions, data breaches and safety failures, which would reshape work patterns, create large new AI safety and security roles and potentially slow or reverse adoption in sensitive domains. Conversely, high security and robustness would enable confident, large-scale deployment and deeper human-AI symbiosis.	**High** The trajectory of AI security is unclear: incident data are only starting to accumulate, safety techniques are immature and there is no settled global regime for AI assurance or red teaming, particularly for frontier models [39].
U9: Global Geopolitics of AI Capabilities and Talent How global power over AI capabilities, compute and talent will evolve and how far it will shape national labour markets and human-AI symbiosis. Several analyses now frame AI as a core axis of geopolitical competition; access to top AI talent, leading models and specialised chips is described as a strategic asset that underpins economic and military power [40]. Global talent trackers show that elite AI expertise is currently highly concentrated in a few hubs, particularly the United States, while many countries risk being locked into dependent roles as users or data suppliers rather than co-creators of frontier systems [41]. Recent UN work also warns that unequal access to AI and related capabilities could widen the gap between rich and poor countries, creating a "great divergence" in income and opportunity [42]. For a jurisdiction such as Abu Dhabi, the configuration of this geopolitical landscape will strongly influence which AI tools are locally available, the bargaining power over global platforms and the inflow or outflow of highly skilled workers.	**High** The global distribution of AI capabilities and talent affects where high-value AI jobs cluster, which countries set de facto technical and ethical standards, whether local workers participate in frontier innovation or adapt imported systems, and the resilience of national labour markets to supply-chain shocks in compute or AI services [40].	**Medium** Competition is intensifying among blocs such as the United States, China and the European Union, but it remains uncertain whether this will stabilise into an open multi-polar ecosystem or fragment into heavily segmented spheres with sharp capability gaps [40].

Table 4: Uncertainties



Key

U1: Pace and Extent of AI-Driven Automation
U2: Net Impact on Jobs and Employment
U3: Workforce Reskilling and Skills Transformation
U4: Policy and Regulatory Response to AI in Work
U5: Human Acceptance and Trust in AI Colleagues and Managers
U6: Economic Inequality and Distribution of AI's Benefits
U7: Emergence of New Roles and Redefinition of Human Work
U8: AI Security, Reliability and Emotional Presence in the Workplace
U9: Global Geopolitics of AI Capabilities and Talent

Figure 3: Uncertainty Matrix

Predetermined Elements

Despite the uncertainties, certain forces and trends in the human-AI workforce dynamic are relatively predictable and form the backdrop for any scenario:

- **Continued Advancement of AI Technology:** AI capability will continue to advance. This is close to a predetermined element of the environment rather than a contingent trend. Computing power is scaling, algorithms, including generative AI, are improving in breadth and performance and data-driven analytics is becoming more capable and easier to deploy. At the same time, the economics are moving in the same direction: the cost of using AI is falling, while the supply of workers with relevant skills is expanding. OECD countries are therefore described as being 'on the cusp of an AI revolution' [38]. The practical consequence is straightforward: greater availability of more powerful AI tools will support adoption in business.

- **Demographic Shifts Leading to Labour Market Pressure:** Many countries are already moving into an era of ageing populations and weaker workforce growth, a largely predetermined shift that will tilt the human-AI balance. In practice, this is likely to produce labour shortages in specific sectors, strengthening the case for AI and robotics to protect productivity.

- **Global Digital Connectivity and Data Proliferation:** The world is more connected than ever, with digital infrastructure extending to even remote regions. This means the foundation for human-AI symbiosis (high-speed networks, cloud computing, vast data streams) is firmly in place and will only expand. The volume of data globally was projected to reach **181 zettabytes by 2025**, nearly three times the 2020 level [43]. Ubiquitous connectivity and data abundance are predetermined elements that ensure AI systems will have the raw material (data) and channels needed to integrate into most work processes in all plausible futures.

- **Recognition of the Need for Lifelong Learning:** There is now broad agreement across governments and industry that continuous upskilling is essential to the future of work. That shared view shows up in concrete action: companies are investing more in employee training and governments are updating curricula to strengthen digital and technology skills. Implementation differs widely and results are not assured, but the underlying premise is settled, people will need to build new capabilities throughout their careers. The World Economic Forum's Future of Jobs agenda, for example, positions lifelong learning and adaptability as core to workforce resilience [36]. For this report, skills development should be treated as a predetermined backdrop: the commitment is embedded, even if its real-world effectiveness remains uncertain.

- **Public Awareness of AI's Disruptive Potential:** In the mid-2020s, it is already evident and broadly accepted that AI will disrupt the world of work. Media coverage, political discourse and academic research have cemented the idea that "the future of work will be disruptive but need not be dystopian" [35]. This level of awareness is not an uncertainty; it is already present. Workers and students are actively trying, often imperfectly, to prepare for an AI-rich labour market, while employers are planning for significant operational change. That matters because the impact of AI is no longer a shock scenario. The live issue is response capacity: whether institutions, firms and individuals can translate a known challenge into credible adaptation, at speed and at scale.

Rationale for selecting U1 and U5 as key uncertainties and their configurations

Based on the analysis, two factors were selected as the two key uncertainties that could have the most profound influence on the future of human-AI symbiosis. Those are **Pace and extent of AI-driven automation** and **Human acceptance and trust in AI colleagues and managers.**

U1 Pace and extent of AI-driven automation

This uncertainty goes to the structural heart of the Light Workforce Paradox. It decides whether AI largely remains a support layer that augments human workers, or whether it automates large chunks of cognitive and routine work and makes the overall workforce much "lighter" in terms of human headcount. It directly affects employment volumes, productivity levels, the composition of sectors and the design of organisations. It is highly uncertain because it depends on technical breakthroughs, cost curves, organisational adoption patterns and sector specific constraints. It is also relatively independent, because even in the same macro economy different sectors can experience very different automation trajectories.

Configuration of Pace and Extent of AI-Driven Automation:
Human-Centred Augmentation ⇄ Autonomous AI-Led Operations

A. Human-Centred Augmentation
AI enhances human work, supports decisions and automates routine tasks, but core roles remain human-led. Automation is targeted, deliberate and paced.

B. Autonomous AI-Led Operations
AI systems become highly autonomous in executing operational tasks and orchestrating workflows, with humans overseeing edge cases, ethics and strategic direction. Large parts of organisational activity run on self-directing AI infrastructures.

U5 Human acceptance and trust in AI colleagues and managers

This uncertainty goes to the lived experience and social licence of human-AI symbiosis. It captures whether people feel that AI systems at work are fair, transparent and helpful, or threatening, opaque and dehumanising. It shapes willingness to collaborate with AI, to share data, to follow algorithmic recommendations and to accept AI-supported supervision. It is highly uncertain because it depends on culture, communication, visible successes and failures and the ethical design of AI systems.

Configuration of Human acceptance and trust in AI colleagues and managers:
High trust and enthusiastic adoption ⇄ Low trust and persistent resistance

A. High trust and enthusiastic adoption
Workers, citizens and residents broadly perceive AI at work as transparent, fair and beneficial. They feel consulted, understand how AI decisions are made and see clear personal benefits in terms of safety, workload and development. Active resistance is low. People are willing to collaborate with AI, to share feedback and to experiment.

B. Low trust and persistent resistance
Workers, citizens and residents see AI as opaque and threatening. They worry about surveillance, unfair decisions and job loss. They do not feel represented in design processes and do not trust reassurances. Resistance emerges through informal workarounds, slow adoption behaviours, disengagement, declining productivity, and growing public pressure to restrict AI at work.

Together, both selected uncertainties provide a powerful scenario matrix, where the first controls how "light" the workforce becomes in structural and quantitative terms. The latter controls whether this lightness is experienced as empowering symbiosis or as an imposed, mistrusted transformation.



Takeaway

The external context signals both acceleration and constraint for the *a*. Political and economic signals strongly favour rapid AI adoption to drive productivity, efficiency and institutional modernisation, while regulatory frameworks and public expectations increasingly emphasise human oversight, accountability and workforce stewardship. At the same time, widening skills premiums, talent concentration and uneven access to reskilling point to rising distributional risks, meaning that workforce transformation is no longer a technical or operational issue but a question of social legitimacy, trust and long-term stability.

Against this backdrop, the future radar highlights a shift toward lighter organisational structures, AI-orchestrated work and increasingly autonomous systems operating alongside humans. Signals such as AI-augmented public workforces, autonomous government agents, leadership digital twins and organisational light workforce models suggest that work will become more fluid, distributed and less tied to traditional roles or hierarchies. The implication is that human value will be tested in environments where work is increasingly invisible, decisions are partially automated and responsibility must be deliberately re-anchored in human judgement, ethics and relational capability.

Uncertainties were therefore identified and narrowed to the two that most directly determine whether the *Light Workforce Paradox* results in empowerment or requires active safeguarding of trust. U1, the pace and extent of AI-driven automation, sets the structural boundary for how *light the workforce* becomes in quantitative and organisational terms, from human-centred augmentation to autonomous AI-led operations. U5, human acceptance and trust in AI colleagues and managers, sets the social boundary for whether this transformation is experienced as collaborative and enabling or as imposed and dehumanising. Taken together, these uncertainties define the core scenario space because they determine both the degree of automation and the quality of human experience within it, shaping whether human-AI symbiosis strengthens productivity, purpose and legitimacy, or undermines them.



5 Four Doors to the Future

Building on the two selected uncertainties, the 2×2 matrix sets out how human-AI symbiosis in the workplace could plausibly evolve. The framework is anchored in two variables: the **degree of trust in society and the workforce in AI systems** and the **extent to which organisations favour human centred augmentation over autonomous operations led by AI.** Along the horizontal axis, futures range from models where AI operates as a collaborative, human guided layer to those where autonomous systems increasingly execute services and decisions. The vertical axis captures levels of trust, spanning environments where AI is regarded as fair, transparent and dependable, to those marked by scepticism, anxiety, or resistance. Together, these dimensions give rise to four distinct worlds, each reflecting a different balance between technological capability, human agency and institutional legitimacy. The resulting scenarios, **Symbiotic Craftsmanship, Fluid Human Core, Stalled Symbiosis and Forced Automation**, illustrate how work, value creation and social cohesion could diverge by 2040 under varying conditions of trust and integration.

The scenarios are exploratory constructs, not predictions and should not be read as a policy roadmap or a signal of near-term adoption. Their purpose is to surface governance choices, safeguards and trade-offs that strengthen preparedness and responsible decision making.

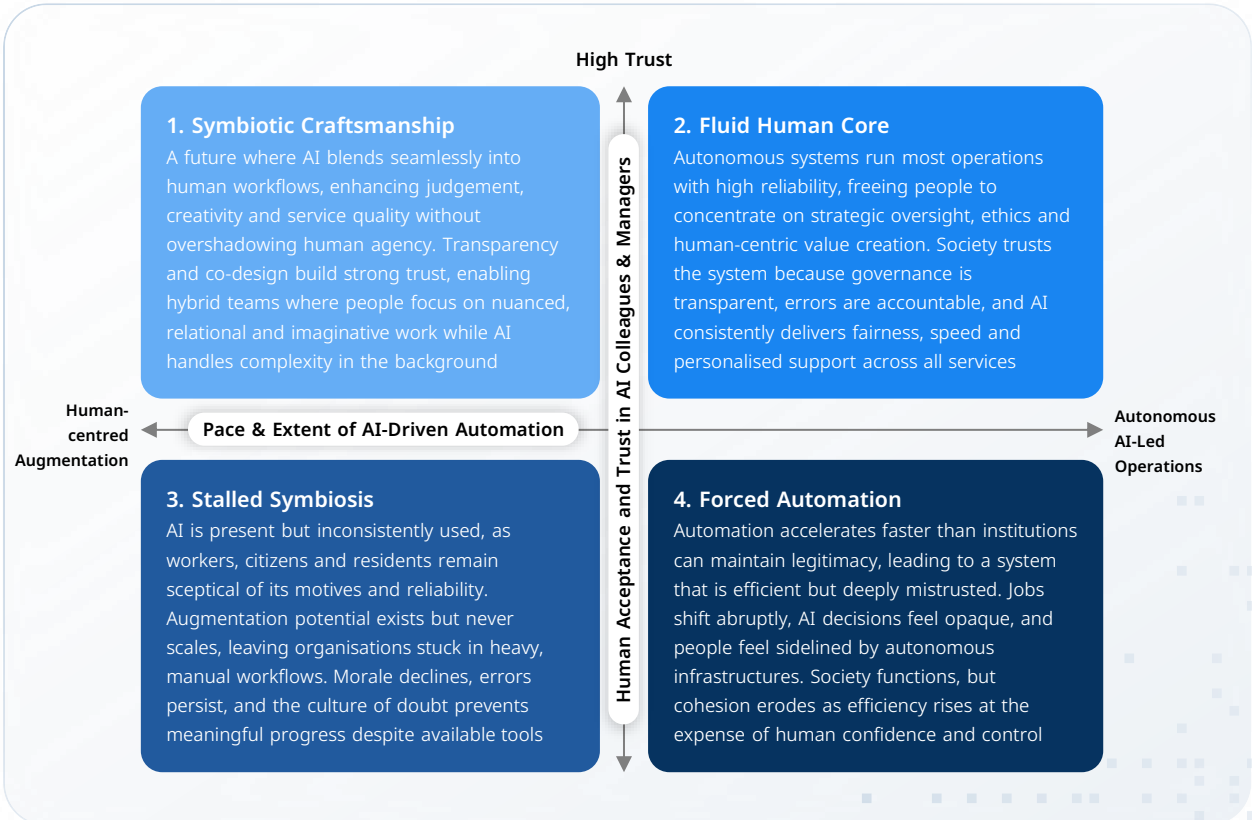


Figure 4: 2x2 Scenario Matrix

A note on how to read these scenarios

The four futures presented here are constructed from global signals, international research and cross-government evidence. They are analytical tools rather than assessments of likelihood, and they should not be read as characterisations of Abu Dhabi's current institutional trajectory.

Scenario planning of this kind is valuable because it actively considers futures that responsible governance should prevent, not only those it expects to achieve. The inclusion of more challenging scenarios in this report reflects intellectual rigour rather than institutional anxiety. All four scenarios are presented because all four are plausible in comparable international contexts, and because a clear understanding of undesirable futures is as strategically important as a clear vision of desirable ones.

SCENARIO 1: Symbiotic Craftsmanship

(High Trust + Human-Centred Augmentation)

By 2040, the workplace has matured into an ecosystem where AI has become an invisible partner, woven naturally into the craft of human work. People no longer talk about 'using AI', it simply coexists within every tool, service and decision flow, quietly amplifying human capability. Employees describe working with AI as more fluid, more intelligent and fundamentally more human. Administrative drudgery has been significantly reduced: planners, analysts, caseworkers, project managers and public servants now focus on judgement, nuance, culture, negotiation and creativity.

This world emerged because trust was built early. Governments and employers co-designed AI tools with workers, publishing transparent performance reports, explaining algorithmic logic in plain language and making error correction processes open to everyone. Citizens and residents saw that AI genuinely raised service fairness, reduced waiting times and expanded access. Workers saw that AI was not a threat but a multiplier of their strengths. A cultural shift took root: AI became synonymous with empowerment rather than replacement.

Organisations began restructuring around hybrid teams, small groups of people supported by specialised AI models tuned to their expertise. Nurses worked with clinical copilots that monitored patient vitals; inspectors used AI scene analysers to enhance safety checks; educators co-taught with adaptive learning engines that customised content for each child. Workers spent more time talking to people, understanding context and shaping outcomes, supported by AI which handled background complexity.

The labour market flourished with continuous learning. National academies offered personalised micro-upskilling journeys, where AI mentors tracked strengths, recommended learning paths and helped workers shift across sectors. Career mobility increased because barriers lowered; people discovered new talents through augmented practice. The idea of a "fixed career" faded as dynamic careers, guided by learning engines, became the norm.

People felt safer, more in control and more valued. Trust wasn't just present, it was rewarded. AI worked best when people leaned into it and organisations made sure that collaboration, not substitution, defined the future of work.

Human creativity, empathy and judgement returned to centre stage, supported and not overshadowed by intelligent systems.

Early indicators that this scenario is emerging

- Explicit role redesign efforts that reposition AI as a background assistant while preserving human judgement, discretion and craft at the centre of work
- Performance frameworks that reward judgement quality, service empathy and accountability rather than speed or volume alone
- Strong uptake of AI tools accompanied by high workforce confidence, transparency and willingness to challenge or override AI recommendations
- Investment in continuous upskilling focused on interpretation, decision ownership and ethical reasoning
- Leadership narratives that frame AI as a capability amplifier rather than a substitute for professional expertise

SCENARIO 2: Fluid Human Core

(High Trust + Autonomous AI-Led Operations)

By 2040, society runs on a vast mesh of autonomous AI systems that handle most service execution, economic coordination and administrative decision flows. Yet trust remains remarkably high. People believe in the system not because they were forced to, but because the results speak for themselves: services are ultra-responsive, errors are rare and fully auditable and personalised support is available to everyone around the clock.

In this world, humans have not disappeared, they have condensed into a powerful, agile 'core'. A small cadre of system stewards, ethical overseers, strategic designers and cross-domain integrators guide the direction of autonomous infrastructures. These roles are prestigious, interdisciplinary and demanding. They attract talent from all over the world, forming a cosmopolitan guild of 'augmentation architects' who ensure AI remains aligned with societal priorities.

For everyone else, work has been reshaped rather than eradicated. Many traditional roles dissolved, but new domains of service stewardship, community interaction, care, culture, sustainability and human experience design blossomed. Freed from repetitive duties, individuals engage in meaningful human-centric work, mediating neighbourhood challenges, cultivating wellbeing programmes, designing cultural experiences, mentoring youth or facilitating creative, social and ecological projects.

The economy thrives on hyper-efficiency delivered by autonomous AI networks that allocate resources, schedule operations, anticipate failures and optimise logistics. Government services run with near-zero delays. Public trust grew as transparency dashboards showcased exactly how decisions were made by AI and how humans intervened. Citizens and residents found comfort in the balance: AI handled complexity; humans upheld values.

The social contract adapted. The wealth generated by autonomous systems funds universal transition accounts, allowing people to pursue learning, entrepreneurship, or socially valuable but historically underpaid roles. Communities embrace a new ethos: humans guide the "why," AI manages the 'how'.

This future feels light, coordinated and confident. Humanity stands atop an intelligent, autonomous operational layer, not replaced by it, but elevated by it.

Early indicators that this scenario is emerging

- Rapid consolidation of operational roles as AI systems orchestrate workflows with minimal human intervention
- Expansion of a smaller set of highly specialised stewardship, oversight and exception-handling roles
- Workforce strategies that explicitly accept reduced human presence in routine operations in favour of scale and efficiency
- Strong trust in AI systems combined with acceptance of reduced day-to-day human involvement
- Emerging debates around long-term career pathways, identity and inclusion as human roles become fewer but more strategic



SCENARIO 3: Stalled Symbiosis

(Low Trust + Human-Centred Augmentation)

By the late 2030s, AI is present everywhere but rarely embraced. Organisations deploy augmentation systems that could dramatically improve service quality and reduce burden, but workers remain wary, suspicious of hidden agendas and sceptical of claims about 'benefits'. People use AI reluctantly, often only when forced by managerial policy or system constraints.

The result is a fragmented, uneven landscape. Some teams become augmentation champions, highly productive, deeply collaborative, respected. Others skirt the tools, keeping shadow spreadsheets, manually redoing AI outputs, or bypassing AI recommendations altogether. Management struggles to understand performance metrics because the adoption is so inconsistent. Every deployment becomes a negotiation rather than an evolution.

The roots of distrust are deep. Early rollout cycles were poorly communicated, ethics questions emerged without clear answers, and a few poorly handled incidents left lasting scars. Workers describe AI as "a tool we didn't ask for, solving problems we didn't define and introduced without our voice." Citizens and residents echo similar sentiments. Complaints rise about opaque decisions, even when AI only provides suggestions.

Since automation remains human-centred and deliberate, jobs are not eliminated en masse. But the benefits of augmentation; reduced workload, better service quality, improved accuracy, never scale effectively. Work remains heavy. Administrative burden persists. Staff morale erodes as they see promising tools that they cannot trust. New hires, initially open to AI, quickly conform to the sceptical prevailing culture.

Some governments introduce trust-building measures, but if engagement is perceived as communications led rather than co-designed, workforce confidence may remain fragile. Trust frameworks exist but feel procedural rather than lived. Public institutions find themselves stuck too cautious to automate, too mistrusted to augment meaningfully. A quiet stagnation takes hold.

The societal narrative becomes one of hesitation: "AI could help, but we don't believe it will help *us*." The future remains labour-intensive not because technology failed, but because trust did.

Early indicators that this scenario is emerging

- Slow or inconsistent adoption of AI tools despite technical availability
- Parallel manual and AI-enabled processes persisting due to lack of trust or clarity on accountability
- Workforce resistance driven by perceived opacity, unfairness, or fear of surveillance
- Limited investment in role redesign, leaving AI as an add-on rather than an integrated capability
- Declining morale as workloads remain heavy while promised productivity gains fail to materialise



SCENARIO 4: Forced Automation

(Low Trust + Autonomous AI-Led Operations)

The early 2030s were marked by fiscal pressures, geopolitical competition and rapid technological breakthroughs. Organisations and governments, pressed to remain competitive and efficient, accelerated automation amid rising public expectations for trust, accountability and oversight. By the late 2030s, most systems run autonomously, but the human response is defined by fear, resistance and alienation.

Workers describe a feeling of being 'swept aside', particularly where role changes outpace reskilling and redeployment pathways. Automation decisions often appeared abrupt: entire job families disappeared after overnight system upgrades; AI platforms replaced teams before reskilling programmes materialised. People found themselves supervising systems they distrusted, second-guessing AI outputs and reporting to algorithmic dashboards that evaluated them without explanation.

Citizens and residents, too, felt the shift. Automated service portals made decisions that seemed impersonal or incorrect and appealing them required navigating complex digital channels. Each AI error or unexpected denial sparked public outcry. Social media amplifies every incident. In some contexts, resistance manifested not through organised collective action but through disengagement, declining productivity, informal non-compliance, and growing public calls for human-first governance expressed through formal channels, civic commentary, and institutional complaint processes. The result in each case was the same: a system that functioned but had lost the confidence of the people working within it.

Yet automation continued, because it worked economically. The autonomous infrastructures drastically reduced operational costs, increased speed and performed with high average accuracy. Organisations, facing financial pressures, saw no alternative. Humans became supervisory nodes scattered across a dense AI-operated fabric, but without influence or understanding.

Inequality widened sharply. A small elite, those who designed, coded, secured or ethically governed the AI networks thrived. Many others fell into precarious smaller roles or intermittent employment as they struggled to transition without the support of strong reskilling, mobility and protection mechanisms.

Social safety nets lagged. Communities worldwide are facing rising stress, declining wellbeing and without active safeguarding
of trust.

In some governments, the relationship between people and institutions decayed. Society functioned, but without cohesion. Efficiency rose, but legitimacy collapsed.

The workforce became light, but also fractured and demoralised.

In some governments, this is a future where automation wasn't chosen collectively; it was absorbed reluctantly. AI led operations dominate, but the human spirit is withdrawn.

Early indicators that this scenario is emerging

- Automation initiatives pushed rapidly in response to cost, capacity, or performance pressures
- AI systems deployed at scale without corresponding investment in workforce readiness or trust-building
- Rising employee disengagement, resistance, or compliance-only behaviour
- Accountability ambiguity as decisions are increasingly shaped by opaque systems
- Public or internal concern about erosion of professional judgement, fairness and institutional legitimacy



Comparative Scenario Overview

The table below compares the four scenarios across the most consequential dimensions shaping the future of work. It highlights how different assumptions about trust, automation and human judgement lead to materially different workforce experiences and governance outcomes, while making explicit the trade-offs inherent in each pathway.

Comparison Dimension	Symbiotic Craftsmanship	Fluid Human Core	Stalled Symbiosis	Forced Automation
Role of Humans	Central decision-makers and stewards of outcomes	Small core of high-value overseers	Overburdened operators	Reduced presence, primarily compliance and exception handling
Role of AI	Invisible assistant augmenting human craft	Autonomous system orchestrating most work	Under-used and fragmented	Dominant driver of workflows
Trust Dynamics	High trust built through transparency and agency	High trust in system capability	Low trust limits adoption	Low trust overridden by pressure
Accountability Model	Clear human ownership of decisions	Concentrated stewardship accountability	Blurred due to parallel systems	Ambiguous and contested
Workforce Experience	Meaningful, skilled and resilient	Elite but narrow set of roles	Frustrating and heavy	Disengaging and unstable
Primary Tension	Balancing augmentation with restraint	Inclusion and long-term human value	Lost opportunity despite capability	Legitimacy and cohesion erosion

Table 5: Comparison of the 4 Scenarios

6 The Future We Choose

6.1 Preferred Scenario

Rationale for Selecting Symbiotic Craftsmanship as the Preferred Future

Symbiotic Craftsmanship is the most sustainable and legitimacy preserving path for Abu Dhabi as AI becomes embedded in everyday work. It is the only future that holds three outcomes together: higher productivity, stronger trust and the retention of the human qualities that create public value, judgement, empathy, creativity and cultural understanding.

By 2040, the central workforce question will not be whether AI can automate tasks; it will be whether work remains meaningful, humane and trusted. This scenario answers that question by making AI largely invisible in day-to-day workflows. Technology takes on administrative effort and routine cognitive load, while people stay accountable for interpretation, decisions and relationship-based service.

This future does not depend on technical dominance. It depends on institutional maturity. Trust is earned early through co-design, transparency and clear ownership of how AI is used and challenged. In that context, AI becomes associated with empowerment rather than replacement, allowing Abu Dhabi to modernise the workforce without trading away dignity, agency, or social cohesion.

The following is an illustrative scenario - a plausible near-future moment drawn from the logic of Symbiotic Craftsmanship.

Mariam has worked in Abu Dhabi's social services division for eleven years. In 2031, her mornings look different from how they did in 2024. Her job does not.

Before she arrives at the office, an AI system has already reviewed the 34 case files scheduled for her week. It has flagged two as requiring urgent attention, cross-referenced them with housing records and school attendance data, and drafted a preliminary assessment for each. When Mariam opens her dashboard, she does not see raw data. She sees a starting point.

She disagrees with one of the AI's urgency flags. The system has weighted a recent rent arrears notice heavily. Mariam knows the family. The father lost his job three months ago and has since been engaged with an employment support programme.

The arrears are real. The risk, in her judgement, is not. She updates the assessment, records her reasoning, and the system logs her override. That log matters: it is part of how the institution learns.

She agrees with the second case entirely. A child has missed fourteen days of school. The AI identified the pattern in twelve seconds. Mariam would have found it eventually. The time she once spent searching for that kind of signal she can now spend on the conversation she needs to have with the child's mother that afternoon.

This is not a story about AI making Mariam's job easier. It is a story about AI making her more useful. The system handles the search. She handles the judgement. The accountability for the decision, for the family, for the outcome is entirely hers. That is the point.

Symbiotic Craftsmanship over the other alternative scenarios

- **Compared to Scenario 2: Fluid Human Core**
  Fluid Human Core preserves human authority in an AI-led state but assumes extensive removal of humans from day-to-day execution. For public-facing services, education, healthcare, inspections, social services, these risks distancing citizens and residents from human connection at the point of experience. Symbiotic Craftsmanship retains humans within practice itself, ensuring compassion, nuance and cultural sensitivity remain visible and embedded.

- **Compared to Scenario 3: Stalled Symbiosis**
  Stalled Symbiosis reflects hesitation rather than strategy. While jobs remain, augmentation never scales, leaving productivity gains unrealised and morale eroded. For Abu Dhabi, this scenario undermines competitiveness and reform ambition. Symbiotic Craftsmanship avoids stagnation by normalising collaboration with AI while maintaining psychological safety and trust.

- **Compared to Scenario 4: Forced Automation**
  Forced Automation delivers efficiency at the cost of legitimacy. Workers feel displaced, citizens and residents disengage and trust collapses. Symbiotic Craftsmanship achieves comparable performance improvements without sacrificing cohesion, by ensuring automation is adopted with consent, transparency and continuous human involvement.

In this future, Department of Government Enablement positions Abu Dhabi as a global reference for human-centred AI adoption, proving that scale, trust and craftsmanship can coexist.



6.2 Implications and Strategic Options

The implications and strategic options discussed in this section examine what the *Symbiotic Craftsmanship* future could mean in practice for government, institutions and the workforce. They are structured around two complementary dimensions: **the risks that must be actively managed** to preserve trust, capability and human agency and the **opportunities that can be leveraged** to enhance performance, learning and public value.

Together, these risks and opportunities define the strategic choices that face Abu Dhabi as it transitions from digitising work to **crafting a mature human-AI workforce ecosystem.**

6.2.1 Key Risks in a High-Trust, Human-Augmented Workforce Future

Symbiotic Craftsmanship sets out an attractive future for work, but it will not deliver on its promise without governance arrangement that match its vision. As AI is progressively integrated into nearly every task, the primary risks shift. They are less about headline job losses and more about how such **augmentation** affects **skills, accountability and professional identity** over time.

Many of these risks will develop quietly. Human judgement can atrophy when systems are relied on by default. Trust can thin out if transparency weakens or decision pathways become harder to explain. Inequalities can widen if the quality of augmentation differs meaningfully across roles or organisations. Managing these pressures is not a secondary concern. It is a necessary condition for AI augmentation to strengthen resilience without creating hidden fragilities.

Risk 1

Gradual Erosion of Human Judgement

As AI increasingly prepares analyses and recommendations, professionals may become overly reliant on machine outputs, weakening independent reasoning and contextual judgement.

Mitigation Actions

- Design AI systems that require active human decision confirmation
- Embed reflection checkpoints in augmented workflows
- Invest in judgement, sense-making and critical thinking training
- Rotate roles to preserve cognitive breadth

Risk 2

Uneven Augmentation Across Roles and Entities

If high-quality AI support is concentrated in select professions or departments, disparities in productivity and career mobility may emerge.

Mitigation Actions

- Define minimum augmentation standards across public roles
- Prioritise equitable rollout of AI copilots
- Monitor augmentation outcomes across entities
- Use DGE-level orchestration to rebalance capability

Risk 3

Trust and Confidence Pressures from Opaque System Evolution

As AI tools evolve, lack of visibility into updates or decision logic can undermine the trust that underpins collaboration.

Mitigation Actions

- Maintain plain-language explanations of A I behaviour
- Publish regular performance and error reports
- Establish clear escalation and correction pathways
- Assign accountable human owners to each AI system

Risk 4

Cognitive Overload from Excessive Augmentation

Poorly designed augmentation can overwhelm workers with alerts, recommendations and insights, increasing fatigue rather than reducing it.

Mitigation Actions

- Apply human-factors design to all AI interfaces
- Limit augmentation to high-value decision points
- Continuously test cognitive load in real work settings
- Allow personalisation of AI support intensity

Risk 5

Resistance to Continuous Learning Expectations

Dynamic careers and constant upskilling may be experienced as pressure rather than opportunity, especially for mid-career workers.

Mitigation Actions

- Frame learning as enablement, not obligation
- Provide protected time for upskilling
- Offer multiple learning pathways
- Reward mastery, mentoring and applied learning

Risk 6

Blurred Accountability in Human-AI Decisions

As outcomes are co-produced by humans and AI, responsibility may become unclear, weakening governance and trust.

Mitigation Actions

- Clearly define human accountability for AI-supported decisions
- Codify hybrid decision-making responsibility frameworks
- Train leaders in owning AI-augmented outcomes
- Ensure accountability is visible to citizens and residents

6.2.2 Strategic Opportunities in Elevating Human Craft Through AI

Beyond risk mitigation, Symbiotic Craftsmanship unlocks a powerful opportunity: the ability to redesign work around **mastery, judgement and human connection**, while allowing AI to absorb routine complexity.

In this future scenario Abu Dhabi moves beyond task-based productivity toward **capability-based value creation**. Careers become fluid, learning becomes continuous and public services become more humane and adaptive. Trust evolves from a prerequisite into a strategic asset.

For DGE, this scenario specifies the elements orchestrating a workforce ecosystem where humans and AI mature together.

Opportunity 1

Redefining Public-Sector Craft

AI enables public servants to focus on judgement, synthesis and relationship-based work.

Strategic Options

- Redesign roles around human judgement and interaction
- Formalise new hybrid professions
- Elevate craftsmanship in public-sector narratives
- Embed mastery principles into workforce frameworks

Opportunity 2

Personalised, Lifelong Workforce Learning

AI-driven learning engines enable continuous, adaptive upskilling aligned with real work.

Strategic Options

- Deploy personalised learning journeys
- Use AI mentors to surface latent talents
- Enable cross-sector mobility via skills passports
- Invest in national micro-credential platforms

Opportunity 3

Human-Centred Service Excellence

With administrative burden reduced, services become more empathetic and context aware.

Strategic Options

- Redesign services around human interaction
- Use AI to anticipate needs with consent
- Measure service quality through human experience indicators
- Reinforce visible human presence in critical moments

Opportunity 4

High-Trust, High-Performance Culture

When AI collaboration is rewarded, engagement and retention improve.

Strategic Options

- Incentivise effective human-AI collaboration
- Recognise exemplar teams publicly
- Share best practices across entities
- Treat trust as a measurable organisational asset

Opportunity 5

Global Leadership in Human-Centred AI

Abu Dhabi can become a global reference for humane AI adoption.

Strategic Options

- Codify Symbiotic Craftsmanship as a replicable model
- Share frameworks through global forums
- Attract talent aligned with human-centred work
- Position DGE as a thought leader in human-AI symbiosis

Symbiotic Craftsmanship represents the most balanced and human-affirming future of work. Not because it limits AI, but because it places it in service of human mastery.

In this future, DGE is not managing automation. It is **cultivating craftsmanship in an intelligent age,** ensuring that as capability scales, humanity deepens.



6.3 First Moves: From Foresight to Action

Foresight is only as useful as the decisions it informs. The analysis in this report points toward five early institutional moves that would anchor Abu Dhabi's progression toward Symbiotic Craftsmanship. Each is grounded in evidence from the scenario analysis and each falls within the scope of DGE's mandate.

Establish a Human Judgement Standard

Define, in governance terms, which categories of public sector decision must always carry an identified human accountable, irrespective of the AI systems involved in producing the recommendation. This is not a constraint on automation. It is a mechanism for making accountability visible to citizens, auditors, and institutions alike.

Pilot Role Redesign in High-Stakes Service Domains

Select two or three service areas where AI augmentation is already deployed: social services, inspection, or licensing. Redesign the human role explicitly around judgement, oversight, and citizen interaction. Use these as structured learning environments before scaling the model across government.

Introduce an Augmentation Equity Audit

Assess whether the quality of AI support available to government employees is consistent across entities and seniority levels. Uneven augmentation risks creating capability stratification that, over time, becomes a problem for both morale and productivity. Establishing a consistent baseline of AI supp support is as important as advancing its upper limits.

Build Override Culture Into Training

Invest specifically in developing the confidence and skill to challenge AI recommendations. The principal risk within Symbiotic Craftsmanship is not that employees will resist AI, but that they will defer to it too readily. Training programmes should explicitly practise and reward the interrogation of automated outputs, drawing on case studies from Abu Dhabi's own extensive deployment experience.

Create a Public Trust Dashboard

Develop a transparency mechanism, potentially embedded within TAMM, to allow citizens to understand, in general terms, when and how AI has been involved in a decision affecting them, and how to raise a concern. This is a governance commitment as much as a technical requirement. It signals that the institution regards public confidence as a measurable outcome to be actively maintained, not a passive byproduct of good performance.

7 Appendix

7.1 Glossary

Term	Description
Future Foresight	A structured and systematic practice used to explore plausible long-term futures to inform present-day decisions under conditions of uncertainty. It does not predict outcomes, but strengthens preparedness, adaptability and strategic choice.
Focal Issue	The central question or subject that warrants exploration, providing direction for the entire process and relevant to long-term decision-making.
Time Horizon	The future timeframe over which trends, signals, or scenarios are projected and analysed.
Environmental Scanning	A broad analysis of the external environment to identify forces, trends and developments shaping the system of interest.
PESTEL Analysis	A structured scanning tool examining Political, Economic, Social, Technological, Environmental and Legal factors influencing future conditions.
Horizon Scanning	A systematic process for identifying emerging trends, weak signals, risks and opportunities that may shape future developments.
Signal of Change	A new or notable piece of information that indicates change may be occurring in a system, behaviour, or environment.
Trend	A consistent and observable pattern of change over time, reflecting developments that are measurable and recognisable.
Weak Signal	An early, often ambiguous indication of emerging change with limited visibility but growing potential impact.
Strengthening Signal	A signal that is gaining visibility and momentum, indicating accelerating influence or broader adoption.
Wild Card	A low-probability but high-impact event or development that could significantly disrupt existing systems or assumptions.
Future Radar	A foresight tool that maps signals of change across multiple time horizons.
Drivers of Change	Underlying forces such as technological, social, or economic that are shaping, or that have the capacity to shape or transform, a system.
Uncertainty	A critical unknown with both high impact and high unpredictability that shapes alternative future pathways.

Term	Description
Predetermined Elements	Events or dynamics that have already occurred or are highly likely to occur, whose consequences have not yet fully unfolded.
Uncertainty Matrix	A foresight tool that maps uncertainties by their potential impact and uncertainty to identify those most influential in shaping alternative future scenarios. It supports prioritisation of uncertainties for scenario construction and strategic exploration.
Scenario Matrix	A foresight tool that generates four alternative scenarios by crossing two critical uncertainties.
Preferred Future / Preferred Scenario	A future state identified as more desirable, or strategically aligned, without assuming inevitability. It is not a prediction but a normative vision of what should happen, representing the most desirable outcome among several plausible futures.
Implications	The potential direct and indirect effects or consequences that emerging trends, developments, or future scenarios may have on an organisation, its operating environment and the wider system.
Strategic Options	Potential courses of action that remain viable across multiple futures or are tailored to specific scenarios.
AI Augmentation	The use of artificial intelligence to support and enhance human work rather than replace it, allowing people to focus on judgement, creativity and relational tasks.
AI Copilots	AI tools embedded in workflows that assist users in real-time by drafting content, analysing data, summarising information or supporting decision making.
AI-native Government	A government model where AI is embedded by default into processes, services and decision flows rather than added as an external tool.
Algorithmic Governance	The use of algorithms to inform or execute public sector decisions, often requiring new oversight, transparency and accountability mechanisms.
Artificial General Intelligence	A hypothetical form of AI capable of reasoning, learning and understanding across a wide range of tasks at a level comparable to humans.
Augmented Decision Making	A decision process where AI provides analysis or recommendations while humans retain final judgement and accountability.
Capability Based Teams	Workforce structures organised around skills and capabilities rather than fixed job titles, often supported by real-time skills mapping.
Centaur Teams	Hybrid human and AI teams where machines handle analysis or automation and humans provide judgement, ethics and contextual understanding.
Cognitive Labour	Work that involves thinking, reasoning, analysing information, or making judgements rather than physical activity.
Digital Twins	Virtual representations of individuals, systems, or organisations used to simulate decisions, behaviours, or future scenarios.
EPOCH Skills	A framework describing uniquely human capabilities Empathy Presence Opinion Creativity and Hope that are difficult for AI to replicate.
Emotional Intelligence	The ability to recognise, understand and manage one's own emotions and those of others, particularly important in leadership and service roles.

Term	Description
Ethical Oversight	Human governance mechanisms that ensure AI systems are used fairly, transparently and in line with societal values.
Human Agency	The capacity of individuals to make choices, exercise judgement and take responsibility for outcomes.
Human Centred Augmentation	An approach to AI deployment where technology is explicitly designed to strengthen human roles rather than diminish them.
Human Capital Reallocation	The shifting of people from routine or automated tasks into roles that require higher value judgement, oversight, or creativity.
Human-AI Symbiosis	A long-term partnership model where humans and AI systems coexist as complementary contributors to work and decision making.
Institutional Legitimacy	Public trust in government institutions based on visible accountability, fairness and human responsibility.
Light Workforce Paradox	The tension where automation reduces the amount of human labour required while increasing the strategic importance of human judgement.
Lifelong Learning	Continuous upskilling and reskilling across a person's career to adapt to evolving technologies and roles.
Organisational Agility	The ability of institutions to adapt roles, processes and structures quickly in response to change.
Predictive Decision Processing	The use of AI to anticipate outcomes or automate routine approvals based on data patterns.
Role Redesign	The intentional reshaping of job roles to reflect changing task boundaries between humans and AI.
Soft Skills	Interpersonal and emotional capabilities such as communication empathy and collaboration.
Strategic Stewardship	Human responsibility for guiding direction, ethics and long-term alignment of AI-enabled systems.
Workforce Resilience	The ability of workers and institutions to absorb disruption and adapt to change without loss of purpose or stability.
Institutional Stewardship	How government responsibly looks after a system over time, including rules, accountability and long-term outcomes.
Light Workforce	Reducing busywork through AI and redesign, while keeping people responsible for decisions and outcomes.

Table 6: Glossary

7.2 References

This report draws on a mixed evidence base, including official government publications, international organisation reports, academic and practitioner literature, and reputable media and industry articles. Some sources are used to capture emerging signals, public discourse, and early-stage developments where peer-reviewed evidence is still limited. Sources capturing early signals or public discourse are indicative and should not be treated as definitive evidence.

[1] Microsoft AI Economy Institute, "Global AI Diffusion: Q1 2026 Trends and Insights," Microsoft, 2026. [Online]. Available: https://www.microsoft.com/en-us/corporate-responsibility/dmc/topics/ai-economy-institute/reports/global-ai-adoption-2026-q1/. [Accessed: Jun. 24, 2026]

[2] Department of Government Enablement; World Economic Forum, "Future of Jobs Report 2025"; Microsoft, "Work Trend Index 2024"; McKinsey Global Institute

[3] Department of Government Enablement, "Abu Dhabi Government Digital Strategy Update 2025," Abu Dhabi, UAE, 2025. [Online]. Available: https://www.dge.gov.ae/en/news/adg-digital-strategy-update-2025/. [Accessed: Jun. 16, 2026]

[4] UAE National Programme for Artificial Intelligence, "About Us," Abu Dhabi, UAE, 2017. [Online]. Available: https://ai.gov.ae/about_us/. [Accessed: Jun. 16, 2026]

[5] Microsoft and LinkedIn, "AI at Work Is Here. Now Comes the Hard Part," 2024 Work Trend Index Annual Report, May 2024. [Online]. Available: https://www.microsoft.com/en-us/worklab/work-trend-index/ai-at-work-is-here-now-comes-the-hard-part. [Accessed: Jun. 16, 2026]

[6] Atlassian, "5 Skills Teams Need to Thrive in the Age of AI (and How to Build Them)," Inside Atlassian Blog, Oct. 2025. [Online]. Available: https://www.atlassian.com/blog/teamwork/human-skills-for-the-age-of-ai. [Accessed: Jun. 16, 2026]

[7] AI Magazine, "WEF Report: The Impact of AI Driving 170M New Jobs by 2030," AI Magazine, Jan. 14, 2025. [Online]. Available: https://aimagazine.com/articles/wef-report-the-impact-of-ai-driving-170m-new-jobs-by-2030. [Accessed: Jun. 16, 2026]

[8] C. Dilmegani and S. Ermut, "Top 20+ Predictions from Experts on AI Job Loss," AIMultiple Research, 2024. [Online]. Available: https://research.aimultiple.com/ai-job-loss/. [Accessed: Jun. 16, 2026]

[9] Starmind, "AI Will Augment, Not Replace, Human Workers, MIT Sloan Study Reveals," Starmind Blog, Jul. 2025. [Online]. Available: https://www.starmind.ai/blog/ai-augments-human-workers-mit-study. [Accessed: Jun. 16, 2026]

[10] True Colors International, "The Human Skills AI Can't Replace: Future-Proofing Your Workforce," True Colors Intl. Blog, 2025. [Online]. Available: https://www.truecolorsintl.com/tciblog/the-human-skills-ai-cant-replace-future-proofing-your-workforce. [Accessed: Jun. 16, 2026]

[11] Department of Government Enablement, "Emerging Trends in Talent Management," Abu Dhabi, UAE, May 29, 2025. [Online]. Available: https://www.dge.gov.ae/en/news/emerging-trends-talent-management. [Accessed: Jun. 16, 2026]

[12] Department of Government Enablement, "What We Do," Abu Dhabi, UAE. [Online]. Available: https://www.dge.gov.ae/en/what-we-do. [Accessed: Jun. 16, 2026]

[13] UAE Government, "UAE National Strategy for Artificial Intelligence 2031," Abu Dhabi, UAE, 2017. [Online]. Available: https://staticcdn.mbzuai.ac.ae/mbzuaiwpprd01/2022/07/UAE-National-Strategy-for-Artificial-Intelligence-2031.pdf. [Accessed: Jun. 16, 2026]

[14] Abu Dhabi Government, "Abu Dhabi Economic Vision 2030," Abu Dhabi, UAE, 2008. [Online]. Available: https://www.actvet.gov.ae/en/media/lists/elibraryld/economic-vision-2030-full-versionen.pdf. [Accessed: Jun. 16, 2026]

[15] UAE Government, "UAE Strategy for Artificial Intelligence," Abu Dhabi, UAE, 2017. [Online]. Available: https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/uae-strategy-for-artificial-intelligence. [Accessed: Jun. 16, 2026]

[16] Startups Magazine, "Almost 50% of Workplace Skills Will Change Within 5 Years," Startups Magazine, 2023. [Online]. Available: https://startupsmagazine.co.uk/article-almost-50-workplace-skills-will-change-within-5-years. [Accessed: Jun. 16, 2026]

[17] Digital Dubai and Dubai Future Foundation, "Dubai State of AI Report," Dubai, UAE, Apr. 2025. [Online]. Available: https://www.digitaldubai.ae/docs/default-source/publications/dubai-state-of-ai-report.pdf. [Accessed: Jun. 16, 2026]

[18] UAE Embassy, "Abu Dhabi Government Accelerates Digital Strategy with Landmark Microsoft-G42 Partnership," UAE Embassy, Washington, D.C., Mar. 18, 2025. [Online]. Available: https://www.uae-embassy.org/news/abu-dhabi-government-accelerates-digital-strategy-landmark-microsoft-g42-partnership. [Accessed: Jun. 16, 2026]

[19] Abu Dhabi Media Office, "Abu Dhabi Government Digital Strategy 2025–2027 Accelerates AI-Native Government Journey," Abu Dhabi, UAE, Sep. 30, 2025. [Online]. Available: https://www.mediaoffice.abudhabi/en/technology/abu-dhabi-government-digital-strategy-2025-2027-accelerates-ai-native-government-journey/. [Accessed: Jun. 16, 2026]

[20] Abu Dhabi Media Office, "Abu Dhabi Government Launches Digital Strategy 2025–2027," Abu Dhabi, UAE, Jan. 21, 2025. [Online]. Available: https://www.mediaoffice.abudhabi/en/government-affairs/abu-dhabi-government-launches-digital-strategy-2025-2027/. [Accessed: Jun. 16, 2026]

[21] Department of Government Enablement, "Abu Dhabi Government Digital Strategy Update 2025," Abu Dhabi, UAE, 2025. [Online]. Available: https://www.dge.gov.ae/en/news/adg-digital-strategy-update-2025. [Accessed: Jun. 16, 2026]

[22] IBM Institute for Business Value, "Augmented Work for an Automated, AI-Driven World," IBM, Aug. 2023. [Online]. Available: https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/augmented-workforce. [Accessed: Jun. 16, 2026]

[23] A. Mazlougui, "Technology-Enhanced Recruitment and Talent Management: A Systematic Review of Transforming Organizational Culture in the Meta-Driven Era," IGI Global, 2025

[24] Futures Platform, "Futures Intelligence Platform," Futures Platform Oy, Helsinki, Finland, 2016. [Online]. Available: https://www.futuresplatform.com/. [Accessed: Jun. 16, 2026]

[25] E. Moon, "5 AI Trends Shaping the Future of the Public Sector in 2025," Google Cloud Blog, Feb. 5, 2025. [Online]. Available: https://cloud.google.com/blog/topics/public-sector/5-ai-trends-shaping-the-future-of-the-public-sector-in-2025. [Accessed: Jun. 16, 2026]

[26] OECD, "Achieving Cross-Border Government Innovation," OECD Publishing, Paris, 2021

[27] A. Rukadikar and K. Khandelwal, "Gamification at the Workplace: A Theoretical Perspective on Training and Development," The Learning Organization, vol. 32, 2025, doi: 10.1108/TLO-07-2024-0239

[28] UNSW Business Insights Institute, "Human Digital Twin for Leaders," UNSW Sydney, 2024. [Online]. Available: https://www.businessinsights.unsw.edu.au/human-digital-twin-leaders. [Accessed: Jun. 16, 2026]

[29] A. Al Marzooqi and H. Zein, "How Invisible Government Services Can Help Improve Competitiveness," The National, Jun. 9, 2021. [Online]. Available: https://www.thenationalnews.com/business/comment/how-invisible-government-services-can-help-improve-competitiveness-1.1237628. [Accessed: Jun. 16, 2026]

[30] Artificial Societies, "Simulating Entire Human Societies with AI," Y Combinator, San Francisco, CA, 2025. [Online]. Available: https://www.ycombinator.com/companies/artificial-societies. [Accessed: Jun. 16, 2026]

[31] World Economic Forum, "Future of Jobs Report 2025," WEF, Geneva, Switzerland, Jan. 2025

[32] C. Fontes, D. Carpentras, and S. Mahajan, "Human Digital Twins Unlocking Society 5.0? Approaches, Emerging Risks and Disruptions," Ethics and Information Technology, vol. 26, no. 3, 2024, doi: 10.1007/s10676-024-09787-1

[33] Dubai Future Foundation, "Future Opportunities: The Global 50," 4th ed., Dubai, UAE, Mar. 2025. [Online]. Available: https://www.dubaifuture.ae/the-global-50/. [Accessed: Jun. 16, 2026]

[34] K. J. McNamara and R. P. Marpu, "Exponential Shift: Humans Adapt to AI Economies," arXiv preprint, arXiv:2504.08855, Apr. 2025

[35] M. Kinder, X. de Souza Briggs, M. Muro, and S. Liu, "Generative AI, the American Worker, and the Future of Work," Brookings Institution, Washington, D.C., Oct. 2024. [Online]. Available: https://www.brookings.edu/articles/generative-ai-the-american-worker-and-the-future-of-work/. [Accessed: Jun. 16, 2026]

[36] World Economic Forum, "Future of Jobs in the Age of AI, Sustainability and Deglobalization," WEF, Geneva, Switzerland, May 2023. [Online]. Available: https://www.weforum.org/stories/2023/05/future-of-jobs-in-the-age-of-ai-sustainability-and-deglobalization/. [Accessed: Jun. 16, 2026]

[37] International Renewable Energy Agency (IRENA) and International Labour Organization (ILO), "Renewable Energy and Jobs: Annual Review 2023," IRENA, Abu Dhabi, Sep. 2023. [Online]. Available: https://www.irena.org/Digital-Report/Renewable-energy-and-jobs-Annual-review-2023. [Accessed: Jun. 16, 2026]

[38] OECD, "Future of Work," OECD Policy Issues, Paris, 2024. [Online]. Available: https://www.oecd.org/en/topics/policy-issues/future-of-work.html. [Accessed: Jun. 16, 2026]

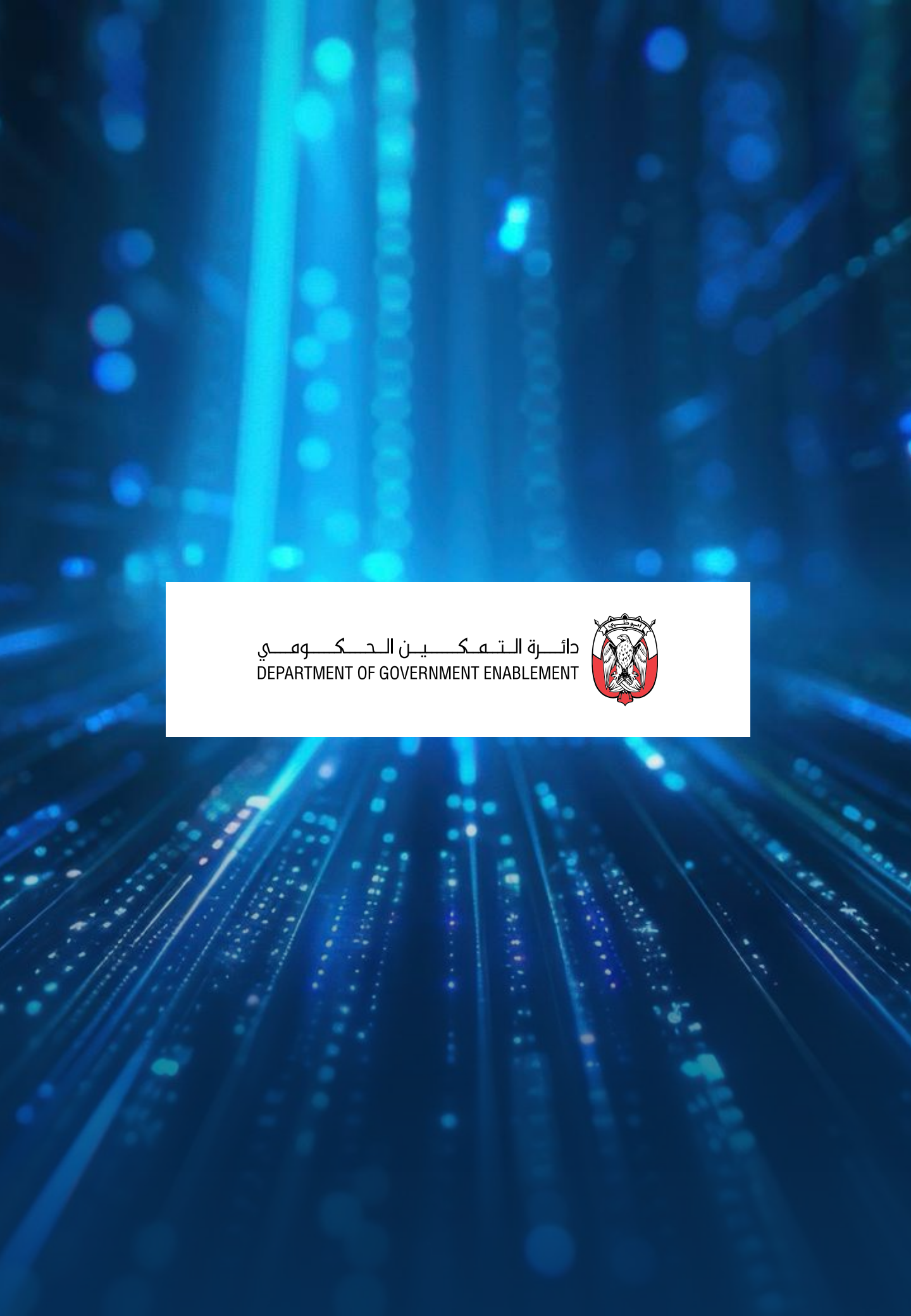
[39] OECD, "AI Risks and Incidents," OECD Policy Issues, Paris, 2024. [Online]. Available: https://www.oecd.org/en/topics/sub-issues/ai-risks-and-incidents.html. [Accessed: Jun. 16, 2026]

[40] JPMorgan Chase Center for Geopolitics, "The Geopolitics of AI: Decoding the New Global Operating System," JPMorgan Chase & Co., New York, Oct. 2025. [Online]. Available: https://www.jpmorganchase.com/content/dam/jpmorganchase/documents/center-for-geopolitics/decoding-the-new-global-operating-system.pdf. [Accessed: Jun. 16, 2026]

[41] M. Sheehan and I. Banerjee, "The Global AI Talent Tracker," MacroPolo, Paulson Institute, Jun. 2020. [Online]. Available: https://archivemacropolo.org/interactive/digital-projects/the-global-ai-talent-tracker/. [Accessed: Jun. 16, 2026]

[42] Reuters, "AI Could Increase Divide Between Rich and Poor States, UN Report Warns," Reuters, Dec. 2, 2025. [Online]. Available: https://www.reuters.com/technology/ai-could-increase-divide-between-rich-poor-states-un-report-warns-2025-12-02/. [Accessed: Jun. 16, 2026]

[43] World Economic Forum, "The ICT Sector Needs to Drive Energy Innovation to Handle Growing Data Volumes Sustainably," WEF, Geneva, Switzerland, May 2024. [Online]. Available: https://www.weforum.org/stories/2024/05/data-growth-drives-ict-energy-innovation/. [Accessed: Jun. 16, 2026]


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