THE AI INDUSTRY TODAY:

Understanding the Current State of Play

LIMRA LOMA

Navigate With Confidence

Contents

1.0 Overview

THE FINANCIAL SERVICES INDUSTRY is undergoing a significant transformation, driven by advancements in artificial intelligence (AI) and its subset, generative AI (GenAI). Like many industries, the rapid expansion of AI has shifted focus, resources, and efforts as companies work to harness its potential and opportunities. Similarly, in the established insurance industry, firms are striving to understand AI and explore ways to achieve lasting success with its implementation.

Following the large-scale digital transformations accelerated by the COVID-19 pandemic, AI is set to further disrupt and redefine the ongoing changes within the industry. AI has the potential to revolutionize many areas of the insurance value chain. In the life insurance sector, integrating AI and GenAI is not only about adopting new technology, but also reengineering business processes to fully leverage its capabilities. AI is doing more than just enhancing existing workflows — it is fundamentally reshaping the life insurance landscape. When properly harnessed, AI can provide insurers with a significant competitive edge, foster innovation, and better meet the needs of a new generation of digital-first customers.

This study aims to provide a snapshot of AI business value enablement (use cases) and AI governance across the industry as of the first half of 2024, assessing the current state of AI adoption and implementation. It serves as a critical foundation for defining industry best practices in AI implementation, risk management, and value measurement. As the first comprehensive study of its kind, it highlights where the industry stands today, outlines future goals, and sets the stage for developing best practices, frameworks, and tools to bridge the gap between the current and desired states.

Geared towards AI leaders (business and technology) and AI practitioners, this report is complementary to two concurrently released reports, *Navigating the AI Landscape: Current State of the Industry — Executive Briefing* and *AI Industry Insights: Business Value and Governance Strategies*.

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2.0 Current State of AI Play — Takeaways

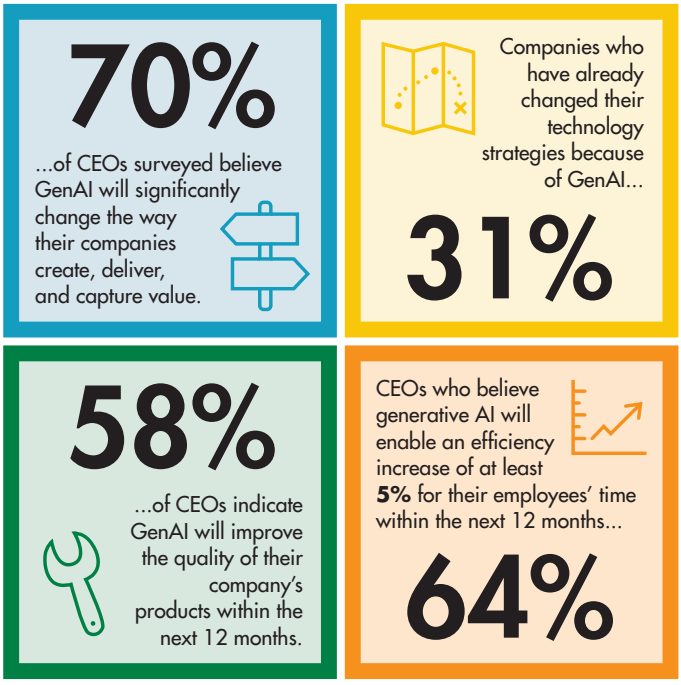
AI, LIKE ANY OTHER TECHNOLOGY, IS A TOOL — a business enabler — but one that is evolving at a rate unlike any technology that has come before it. There is consensus that our industry is at a seminal moment. This "Age of AI" is likely to be as impactful as the rise of the internet and the iPhone. While AI holds incredible promise to transform our industry, there is recognition that we are in the nascent stages. Most carriers are still trying to develop their AI strategies and deduce how and where in the value chain it can be leveraged. There is an opportunity for leaders to take a step back and truly evaluate the cultural change management that will be necessary as AI continues to fundamentally shift existing business processes. The industry continues to focus on ensuring that any implementations of AI must prioritize fairness, transparency, and explainability. Absent regulation and overarching regulatory frameworks, it is even more important for the industry to prioritize ethics in AI, striking a balance with potentially limitless innovation.

While there continues to be excitement across the industry about AI/GenAI, carriers should be clear about the fact that successful long-term adoption depends on several bedrock factors. Data readiness for AI and cultural change management are two of the most prominent factors that will influence a carrier's success with it. Leaders should not underestimate the criticality of sound data strategy and governance, as well as data management programs with respect to ensuring success with AI. Carriers should be diligent in establishing a culture of continual learning and use this learning to constantly revisit and refresh their strategies. The pace of AI acceleration is like nothing we have witnessed before. This will exert pressure on firms, governance, and regulation to catch up and keep up. The AI Governance Group (AIGG) recognizes that the rapid pace of change within the AI space means that the industry has no real playbook, and the work of this group will help provide some structure and guidance to the industry. The AIGG acknowledges the need to ensure that these standards and best practices are vibrant and regularly updated to keep abreast with advancements in AI.

There is an opportunity for leaders to take a step back and truly evaluate the cultural change management that will be necessary as AI continues to fundamentally shift existing business processes. The industry continues to focus on ensuring that any implementations of AI must prioritize fairness, transparency, and explainability.

2.1 The Age of AI Is Irreversibly Here

While technological progress has been accelerating over the past decade or two, the hype around AI's transformative potential is justified. CEOs across industries seem to recognize this transformative potential. Seventy percent of CEOs from all industries, including insurance, featured in PwC's 27th Annual Global CEO Survey,[1] believed that GenAI will significantly change the way their companies create, deliver, and capture value. To anticipate those changes, 31 percent of CEOs indicated that their companies have already changed their technology strategies because of GenAI. These CEOs were generally optimistic, with 58 percent indicating that GenAI will improve the quality of their company's products or services within the next 12 months, and 64 percent believing that generative AI will enable an efficiency increase of at least 5 percent for their employees' time at work during that same timeframe.



[1] Thriving in an age of continuous reinvention, PwC, 2024.

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There is widespread acknowledgement that we are entering the "Age of AI" and the transformative potential of AI in the insurance value chain. The use of AI in the industry is not new, but the rapid progress in AI models has led to its increased use across the insurance value chain. GenAI has displaced "digital transformations" as the primary technology focus area for the industry. Every major vendor has already incorporated AI, specifically GenAI, across their product offerings, making AI imminently ubiquitous across the insurance value chain. Regardless of whether a firm plans to build its own AI models or leverage external AI providers, it will require an AI strategy. The strategy should focus on evaluating fit-for-purpose products, measuring productivity gains, training employees, developing enterprise AI use policies, and derisking the vendor supply chain.

IMPLICATIONS

AI Is Everywhere: The use of AI within our industry is not new, with early adopters investing in developing their AI and machine learning (ML) practices as long as a decade ago. Although these AI models were fairly rudimentary then, this space has seen rapid progress. In the underwriting domain for instance, LIMRA research indicated that less than 50 percent of carriers had an automated and accelerated underwriting program in 2017. This benchmark jumped to 93 percent in 2022, underscoring the rapid rise of AI's use within the industry. In addition to underwriting, AI has been used across the insurance value chain — from chatbots to fraud detection. It wasn't until 2023 however, driven by the explosive growth of GenAI (such as ChatGPT and DALL-E) that AI displaced "digital transformations" as the primary technology focus area for the industry. Note that while GenAI (a term often used synonymously with "LLMs" or large language models) has captured most of the AI attention, it is only one branch of the sprawling AI tree. This tree includes things like facial recognition, speech AI, robotics, etc.

A likely reason for the rapid success of GenAI across the industry is because technology that begins in our personal lives and transfers to our professional lives has a much greater potential for acceptance. For instance, the smartphone became commonplace across industries because it started off as a personal utility, whereas the Blackberry was decidedly a business-oriented product that failed to make inroads as a consumer electronics product. Every major vendor has already commenced incorporating AI (specifically GenAI) across their product offerings. This includes Microsoft (Copilot), GitHub, Salesforce (Salesforce Einstein), Google (Google AI, Bard), Adobe, etc.

ACTIONABLE INSIGHTS

Firms Need a Plan for AI: Regardless of whether your firm plans to build your own AI models, or intentionally leverage external AI providers in your value chain (for automated and accelerated underwriting as an example), AI will be an integral part of your company, therefore requiring a strategy.

This presents opportunities and risks for your firm. To capitalize on the productivity gains of GenAI incorporated within vendor products such as Salesforce Einstein or Microsoft Copilot, you will need to have a strategy that evaluates what products are fit-for-purpose, how you can measure the lift in productivity, how you can train and equip on employees on these utilities (not unlike when email, the Office product suite, and the internet first arrived within your enterprise), and how you could redeploy any excess

capacity due to productivity gains, etc. Consider developing a strategy that focuses on familiarizing yourself with the products your firm has already incorporated (or imminently will incorporate) with AI. Understand how your firm might develop and benefit from a training program for employees.

AI Use Policies: It is vital for your organization to develop and regularly maintain enterprise AI use policies, not unlike employee-focused policies that outline appropriate use of your company's digital assets. In addition to educating employees on how they can leverage AI within vendor products, employees should also be educated on your enterprise AI policies. Ensure that your employees understand the public nature of GenAI and that your firm establishes safeguards to protect against accidental loss of your data or intellectual property. Note that if your organization allows employees to connect to public GenAI such as ChatGPT from within your network, there will be ongoing risk of inadvertent loss of enterprise data and/or intellectual property.

Risk Management: From a risk management perspective, derisking the vendor supply chain with respect to AI will need special attention. This shall be discussed further in the "Governance" portion of this section.

Consider developing a strategy that focuses on familiarizing yourself with the products your firm has already incorporated (or imminently will incorporate) with AI. Understand how your firm might develop and benefit from a training program for employees.

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Until recently, AI implementations within firms have been happening in divisional silos, preventing firms from having a unified approach. Centralization of AI programs within firms has allowed for a more holistic approach to using it as an enterprise enabler. Firms have been able to develop enterprise AI strategies that go top-down, starting with business priorities and drivers, and cascade through the organization. It has also allowed firms to ideate and develop use cases that can be reused through multiple parts of the business, and to capitalize on their collective knowledge and AI intelligence. Firms should formalize enterprise AI COEs/Governance Groups, evaluate, and consider using sophisticated AI cybersecurity tools, adhere to data privacy and protection regulations, and provide support to CIOs.

2.2 Centralization of AI Programs

Although the use of AI across our industry is not new, AI implementations within firms thus far have been happening as is typical for any other technology implementations within our industry — relegated to department and divisional silos, thus preventing firms from having a holistic perspective and approach across an enterprise. These AI implementations have existed within marketing, underwriting, actuarial, claims, etc., but until recently, organizations have been unable to capitalize on a unified approach.

This has shifted quite dramatically over the past year (Q2/Q3 2023 into Q2/Q3 2024). Enjoying significant attention and support from Boards and CEOs, Chief Information Officers (CIOs) across the industry have been charged with overseeing all aspects of AI implementations within their firms.

Most carriers commenced AI use case development programs starting in 2023. Under the purview of CIOs, starting off as proofs of concept, these use cases traverse the value chain. Several of these experimental use cases did not yield success, however, there are many others delivering real value to the enterprise. This centralization of GenAI use case ideation also presented CIOs — and the C-suite overall — with an opportunity to surface AI implementations that were underway across the enterprise.

Although GenAI programs had been limited in scope and scale, taken in aggregate, firms have realized that they'd already been investing in AI — no matter how limited or specific in scope — broadly across their organizations. Impressively, as they have set up their GenAI ideation groups, firms have also been able to rapidly coalesce these activities and build an enterprise structure around them.

Firms have mobilized quickly to establish AI Centers of Excellence (AI COEs) and/or AI Governance Groups (not to be confused with the LIMRA and LOMA consortia — the AI Governance Group that discusses matters of governance, best practices, use cases, etc.). Chaired by enterprise CIOs (and/or their direct reports, including but not limited to the Chief Information Security Officer (CISO), Chief Data Officer/Chief Data Analytics Officer (CDO/CDAO), and others) in partnership with a C-suite business head, the AICOE/AI Governance Groups are responsible for stewarding AI ideation, implementation, and oversight across their firms. Typically traversing the firm's value chain, the COEs consist of representatives that include AI technical experts (from IT and data science) and those representing business expertise from marketing, legal, regulatory and compliance, distribution, actuarial, and underwriting, etc. By consolidating AI implementations under their CIOs, firms ensure that they are appropriately aligning business and technology, able to bring together disparate skill sets across the insurance value chain, able to effectively manage risk, leverage vendor relationships, manage third party vendors, and develop institutionalized, scalable, repeatable, and disciplined practices around operationalizing GenAI. This is going to be immensely beneficial in maintaining standards, compliance, and developing economies of scope and scale.

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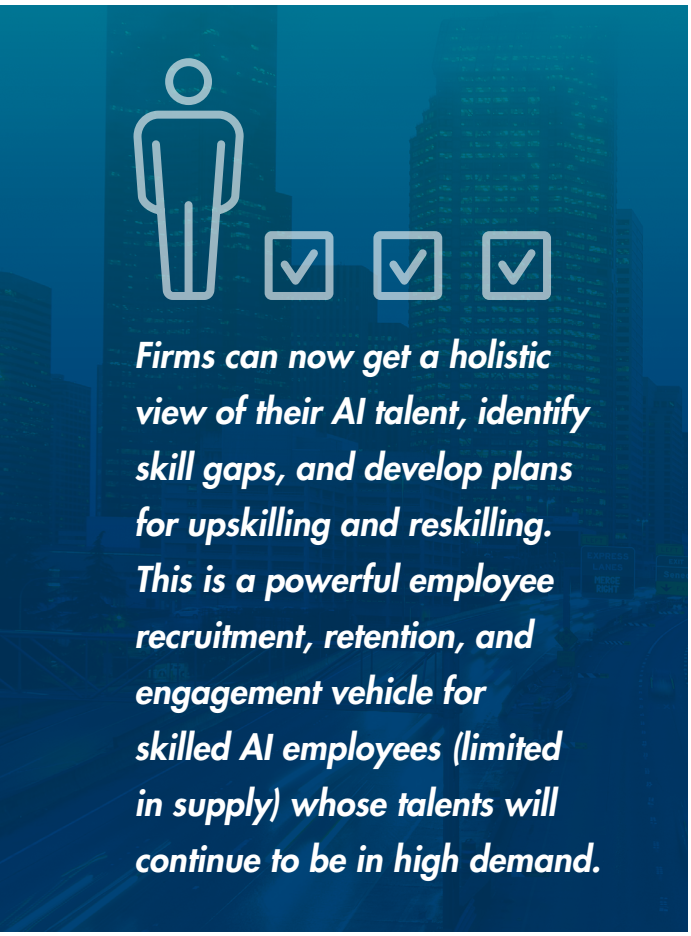

Firms can now get a holistic view of their AI talent, identify skill gaps, and develop plans for upskilling and reskilling. This is a powerful employee recruitment, retention, and engagement vehicle for skilled AI employees (limited in supply) whose talents will continue to be in high demand.

IMPLICATIONS

Centralization of the totality of AI programs across an organization — typically under the CIO — provides significant benefits to a firm. A silo-based approach to enterprise AI implementations is highly unlikely to yield success.

Elimination of Organizational Silos: The centralization of AI programs has presented firms with an opportunity to leverage the 360-degree perspective (that had been elusive in the past) to successfully incorporate AI as an enabler to further business strategies. It has allowed organizations to develop, or commence the development of, enterprise AI strategies that go top-down — starting with business priorities and drivers — and cascade through the organization. This is in stark contrast to just a few years ago when AI innovation was relegated to individual departments with no real broader enterprise-level strategies stitching them together. This would be comparable to only certain parts of your organization having access to the internet and email in 2024.

Opportunities for Reuse and Creation of Scope and Scale Economies: An interesting outcome of centralization has been the ability for firms to ideate and develop use cases that can be reused through multiple parts of the business. Similarly, the establishment of AI COEs and Governance Groups is allowing organizations to capitalize on their collective knowledge and AI intelligence. Having technology experts be interspersed with business subject matter experts allows organizations to mitigate waste, repetition, redundancy, and learn from each other. Firms can now get a holistic view of their AI talent, identify skill gaps, and develop plans for upskilling and reskilling. This is a powerful employee recruitment, retention, and engagement vehicle for skilled AI employees (limited in supply) whose talents will continue to be in high demand.

AI ROI (Return on Investment): One of the most challenging things for an organization to measure has been the total cost of the AI investments. Relatedly, the derivation of benefit analyses, and return on investment for AI at an enterprise scale has been relatively opaque to organizations. While firms still have a way to go, centralization has at least allowed organizations to track AI investments, as well as cost benefit analyses for their use cases, in a coordinated, more holistic manner.

Centralization has also opened up the possibilities that a firm can share crucial computer and technology infrastructure. Technology investments for AI have sometimes been resident within lines of business, mitigating a CIO's ability to have a view into them. The ability for an enterprise to develop AI models and socialize these broadly across the company, then centralize management of critical data required for AI systems has now been made possible.

Vendors and Third-Party Solutions Providers: Firms that are engaged with external vendors and third-party solutions providers are now able to take advantage of the scope and scale economies when negotiating with these companies when it comes to AI solutions/platforms. Most carriers are still on their journey to have a templated approach to help them decide when it is appropriate to build their own AI models (using only their own data or augmenting with external vendor-supplied data) or to "rent" AI systems (software as a service). It is more than likely that decisions — whether building or renting — that have been made in one part of the firm have widespread applicability to the enterprise. Centralization is allowing for this collective corporate intelligence to be surfaced. Although it is highly likely that most carriers will end up with a hybrid approach (building and renting AI systems), centralization has made it possible for CIOs to have an enterprise-wide view of all vendors and trading partners delivering AI services.

Risk Management and Mitigation: By allowing for centralized AI oversight, CIOs can work across the enterprise to implement and enforce safeguards on intellectual property and prevent against inadvertent data loss. Additionally, regardless of which aspect within the sprawling field of AI organizations are implementing (GenAI, Speech AI, Machine Learning, etc.), the concept of AI explainability, transparency, and mitigation of bias and proxy discrimination remains at the forefront. By allowing for centralization, leaders can ensure that best practices for explainable AI and transparency can continue to be a priority across every implementation.

Cybersecurity: In partnership with Chief Information Security Officers (CISOs), CIOs are now able to manage cybersecurity risks associated with AI across the enterprise. They now have increasing holistic visibility into the threat landscape. The industry is wary of AI being leveraged to perpetuate cybercrime. For the most part, even the most sophisticated cybercriminals are generally unsophisticated. While their *tactics* have continued to become more sophisticated, in contrast to AI systems, these bad actors are limited by the resources and infrastructure they have at their disposal to commit cybercrimes. Additionally, unlike AI, human cybercriminals need to eat, sleep, and take breaks. AI does not. It will continue to learn vulnerabilities and seek new ways to exploit them. AI being used to create deepfakes creates a whole new set of challenges for account takeover (ATO) fraud, as well as novel cybercrimes. Deepfakes are increasingly indistinguishable from reality and can accurately emulate someone's voice and intonations. AI being used to spoof biometric authentication systems is going to result in a significant paradigm shift in how firms approach those systems. From facial recognition to voice authentication systems, the industry will need to reconsider our approach to authentication.

ACTIONABLE INSIGHTS

Formalize Enterprise AI COEs/Governance Groups: Business and technology leaders should be intentional about the AI COEs that have been established within their firms. These cross-functional teams will help execute AI strategies, provide a liaison model across your enterprise, ensuring that the totality of your organization is represented, and help with governance and prioritization. These COEs, due to their distributed cross-functional nature, will require leadership support from across the enterprise. This includes ensuring that leaders provide the requisite time that team members who are part of the COE require, develop feedback loops, and stay aligned with enterprise AI priorities. Leaders are advised to be intentional about ensuring AI implementation within their firms does not occur in silos.

Cybersecurity: It will be important for leaders to support CIOs and CISOs in their mission to bolster a firm's defenses against the increased threat of cybercrime that comes with AI. Firms should evaluate and consider using sophisticated AI cybersecurity tools to protect against and prevent attacks. Human error remains one of the leading causes of cybersecurity breaches, and a focus on continually educating and training employees will be vital — especially against this evolving threat. CIOs and CISOs are advised to continue implementing robust security measures, conducting regular security assessments and audits, and keep abreast of U.S. agency recommendations.

Leaders are advised to be intentional about ensuring AI implementation within their firms does not occur in silos. Organizational silos pose an institutional risk for the organization since issues as a result of deviations from standards and governance practices can reflect poorly on the entire enterprise.

Data Privacy and Protection: Separate and distinct from data and information security, adherence to data privacy and protection regulations is of vital importance to carriers. Multinational carriers have a compounding set of regulatory guidelines they must adhere to when it comes to distinct data privacy laws across the world (for example, GDPR in Europe, PIPL in China, APPI in Japan, etc.). The U.S. lacks federal data privacy regulation, and it is unlikely that this will change anytime in the near future. The problem of data privacy and compliance with regulation is exacerbated if this data makes its way into AI systems and is used to render some kind of output/decisions. The premise behind data privacy laws is to give consumers rights to their digital identities and maintain the "right to be digitally forgotten." Should data that is subject to privacy regulations become part of datasets used to train an AI model, or be used operationally, it would be challenging to locate, identify, and have the model unlearn these data elements. Centralization will allow CIOs, Chief Data Officers (CDOs), and Chief Privacy Officers (CPOs) to have visibility into the types of data being used to train AI models across the enterprise and proactively mitigate issues.

Provide Support to CIOs: The CIO (or AI leader/s responsible for your AI strategy) should continue serving as the central points of contact on all AI activities across the enterprise. CIOs are best positioned to bridge between different business and technology groups due to the 360 degree perspective that they enjoy. CEOs should expect CIOs to develop AI strategies in accordance with business and enterprise priorities.

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The insurance industry is undergoing a significant transformation driven by AI. However, legacy systems, highly bespoke homegrown systems, and highly customized off-the-shelf software continue to pose challenges. AI can enhance operational efficiency and drive substantial value across various facets of the industry. Companies can maximize value from AI investments as business drivers by redirecting IT investments to fund AI initiatives through 2024, centralizing AI investments, and developing benchmarks for AI funding. Carriers are advised to adopt a "fail fast" approach towards use cases that do not yield success and to develop a documented, repeatable, and standardized process to operationalize GenAI use cases. Companies should prioritize educating employees in jobs that are prime candidates for incorporating AI, especially GenAI, and measuring value from AI implementations and ideation.

2.3 AI as a Strategic Enabler and Value Driver

Characterized by mature and complex business processes, the industry is experiencing a significant transformation driven by AI. Digital transformations have been commonplace in the industry for about a decade now and have seen success, albeit for individual domains within the value chain. The industry continues to be challenged with legacy systems that are inexorably tied to business processes, highly bespoke homegrown systems, highly customized off-the-shelf software, and institutionalized workarounds. Having historically treated data as a byproduct of systems versus a product that can be leveraged, the industry continues to wrestle with data of varying quality that is scattered across an organization and resides in system silos. Add to that the changing expectations of a new generation of customer and the evergreen challenge of attracting and retaining talent within the industry, and carriers will continue to face difficult decisions on prioritizing which opportunities to pursue in what order. Investments in AI as a strategic enabler are over and above what carriers have been wrestling with for the past several years. That said, as a strategic enabler, AI can enhance operational efficiency and drive substantial value across various facets of the industry. It is highly likely that AI will emerge as the defining technological advancement that will create new value and unlock existing potential within firms across the industry. From driving productivity, improving customer engagement and customer experience, driving operational efficiency and cost reductions, fostering product innovation, and ensuring compliance, AI is poised to significantly transform the way insurers operate and deliver value. As AI continues to evolve, its adoption will become increasingly essential for insurers aiming to maintain a competitive edge and meet the changing

> ***It is important to keep in mind that your firm's success is not about the success of your AI implementations, but more about the success of your business strategies enabled by AI.***

needs of customers in a rapidly evolving market. Crafting and executing an AI strategy that is in support of business priorities enhances operational capabilities, and also paves the way for a more customer-centric, efficient, and innovative insurance carrier. According to a Deloitte report that surveyed almost 2,000 respondents across multiple industries including financial services, "The percentage of organizations reporting they were already achieving their expected benefits to a "large" or "very large" extent is 18 percent–36 percent, depending on the type of benefit being pursued. Organizations that reported "high" or "very high" levels of generative AI expertise are scaling generative AI much more aggressively — and are achieving their desired benefits to a much greater degree than others. Organizations primarily plan to reinvest the savings from generative AI into innovation (45 percent) and improving operations (43 percent) — addressing the value equation from both sides."[2] There are several implications on how companies can maximize value from AI investments as business drivers that should be considered as organizations craft and execute their business strategies.

> ***Organizations primarily plan to reinvest the savings from generative AI into innovation (45 percent) and improving operations (43 percent) — addressing the value equation from both sides.***[2]

IMPLICATIONS

AI Investments and IT Budgets: Some portion of firms' IT investments have been redirected to funding AI initiatives through 2024. The percentage of this redirection depends greatly on each individual firm and where they had been in their AI journey. Expectedly, with some of the use cases that carriers have been experimenting with coming to fruition, based on conversations with CIOs, this investment is set to increase in 2025. Anecdotally, companies that were early adopters had budgeted for AI ideation and experimentation — along with allocating funds to build their own private instances of public GPT, Microsoft Copilot, GitHub Copilot, etc. in 2023. They had also budgeted to use external consultants to help craft their AI strategies. As expected, most major consulting and analyst firms have developed thriving AI consultancy practices. Clouding some of the data continues to be the fact that AI existed as ongoing siloed practices within business units in the value chain, The IT investment into AI does not currently account for these funds as they had been a part of individual business units. Centralization will allow firms to understand their total historical AI investment and accurately project what level of investment for the future is appropriate for them. An area of opportunity in our industry is for LIMRA and LOMA to develop benchmarks around the level of AI funding in 2024 and tracking this increase over time.

[2] The State of Generative AI in the Enterprise, Deloitte, 2024.

Experimentation and Ideation: Most carriers have several ongoing active use cases. These are primarily enabled by GenAI. These use cases have come a long way in a year. At the start of 2023, under pressure to "do something with GenAI," organizations mobilized to do just that. A lot of these early use cases were initially more "artificial" than "intelligent," but this has improved significantly. Organizations are highly focused on the business value behind these use cases and are starting to track ready and realized value of these use cases. Companies are also embracing innovative practices, traversing across functions of the business, and bringing units together for AI ideation days, hackathons, etc. It is to be expected that several of these use cases will likely not ever be operationalized. That does not imply that firms are slowing down their experimentation and ideation efforts. To the contrary, firms are expanding their use case pipeline. The expectation is that even if half of the use cases fail, the half that do succeed can present real value to the organization.

According to a Q2 2024 study by LIMRA and LOMA and PwC, "GenAI investment will expand from enabling and supporting existing functions to completely reimagining the entire insurance value chain. PwC projections found that, in the insurance industry in 2023, approximately half of GenAI's value (measured in percent of operating profit uplift) would be driven by common recurring use cases (marketing content generation, for instance). That value will increase in 2024 as carriers understand and prioritize initiatives with greater transformational potential. That said, GenAI initiatives have started the year similarly to how they did at the end of 2023, with the biggest change being the number of carriers pursuing them. However, while many GenAI initiatives will continue to deliver contained use cases within specific value chain functions (things like quoting automation and marketing communications), carriers are increasingly looking for opportunities for GenAI to reimagine core functions, business processes and transformations to deliver business outcomes. In other words, carriers are starting to move beyond establishing table stakes to identifying and pursuing opportunities to differentiate themselves from their competitors and operate at a lower unit cost by driving efficiencies across the value chain."[3]

[3] *2024 GenAI Insurance Trends*, LIMRA and PwC, 2024.

AI Training: Carriers have outlined modest training programs to expose employees to the basic aspects of AI. It should be noted that there continues to be concern about potential job displacements due to AI across the employee base. While some of these concerns are largely driven by a fear of the unknown, it has presented firms with an opportunity to engage with employees, educating them that AI is intended to augment their jobs and provide productivity lifts. Demystification of AI in simple business terms will be vital, and educating employees on how they can leverage this technology in their jobs will provide visibility into productivity gains. Employees would benefit from basic education on AI and how GenAI factors into the overall AI picture and some carriers are leveraging platforms like LinkedIn Learning to facilitate this overview.

ACTIONABLE INSIGHTS

Mutualizing Common Problem Solving: Despite some differences, use cases that most carriers are pursuing are generally around solving similar business problems across the same domains. For example, carriers are leveraging GenAI to do similar things across marketing, for IT productivity, platform modernization, etc. Outside of some niche use cases, the frameworks for AI ideation within a company, the challenges and opportunities, risks, and benefits are typically the same.

This is where LIMRA and LOMA and AIGG can be invaluable. LIMRA and LOMA will continue to the industry together to mutualize the problem solving by developing common tools, frameworks, and best practices that each carrier can take and customize to their needs, while establishing AI as a competitive tool where it makes sense. Carriers that reinvent their supporting business processes and reimagine them with GenAI as an enabler are the ones that are likely to carve out a differentiating niche for themselves.

Pathways for Innovation Operationalization: Depending on size of the carrier, the size of their investments, and number of resources the carrier has marshaled, the average firm could have several dozen active use cases in their ideation pipeline. Some carriers have multiple use cases that they are concurrently and actively exploring across the enterprise. Carriers have commenced pilots, distributing GenAI tools to a select group of users with the intent of observing how these employees leverage GenAI into their jobs to boost productivity. The early results are promising and depending on the function and nature of the job, employees are finding productivity gains. This time saving is being measured as these companies seek to derive an approximation of what kind of a lift in productivity

they should anticipate when they roll GenAI out to the entire firm. It is widely accepted that a portion of these use cases will not yield the desired outcome. Some use cases might deliver weak value and these returns might not justify the investment. There will be use cases that outright fail to achieve expected goals. Carriers are advised to adopt a "fail fast" approach towards these use cases. If a use case does not yield success, it is important to determine if that use case might deliver better value somewhere else in the value chain, or whether it is "ahead of its time." For posterity, carriers should document the use case: desired state, why it failed, and what the organization learned from the experience, and quickly move on.

Historically, carriers have struggled to create and operationalize an innovation pipeline. To maintain the vibrancy and viability of their innovation pipelines, leaders operating the AI Task Forces/Centers of Excellence should define a repeatable business process that documents various lifecycle stage gates: how proofs of concept become minimally viable products (MVPs), how MVPs become pilots, and how pilots are operationalized, etc. This will be important to provide the C-suite with the visibility to track progress against stated objectives. Carriers who have invested time and resources into conducting innovation events such as internal hackathons, might have surfaced some viable ideas, but have often been unable to bring the ideas to fruition or failed to mature proofs of concept any further. There could be a variety of reasons for this ranging from the upfront investment required to take proofs of concept further to lack of long-term feasibility. However, one of the biggest hurdles companies have faced is that they haven't invested in developing an innovation-to-operationalization process. GenAI products differ from traditional innovation proofs of concept due to their portability and ease of integration into existing job functions. Nonetheless, several GenAI use cases also necessitate business process reengineering. This is where corporate culture and reticence to change (whether in one impacted job, business unit, or across the value chain) can serve as headwinds to operationalization. Additionally, introduction of a GenAI use case in one part of the operation may result in unintended consequences in a different part of the firm. Carriers should consider all these factors in developing a documented, repeatable, and standardized process to operationalize GenAI use cases. This process should clearly define roles and responsibilities in operationalization, ongoing measurement of realized value, go/no-go decisioning criteria, and how continual improvement to the use case would be effectuated.

AI Literacy and Job-Specific AI Training: JP Morgan Chase CEO, Jamie Dimon has likened the impact of AI to that of the printing press and the steam engine. Calling AI as consequential as electricity, Dimon has instructed JP Morgan Chase to immerse new employees in mandatory AI training. Dimon is seeking to prepare employees to leverage AI as a tool for automation, operational efficiency, and to boost their own productivity. Similarly, within our industry, leaders should start identifying which jobs and job functions are prime candidates for incorporating AI, especially GenAI, as a key aspect of their current responsibilities. Carriers should prioritize educating employees in these jobs first, helping them leverage AI to optimize their own functions. It will be important to provide some basic AI literacy to all employees, not unlike the training provided to employees when the Office productivity suite was first introduced.

Measuring Value: Companies across the industry are being intentional about measuring value from their AI implementations and ideation. Centralization has allowed carriers to get a full picture of their ongoing AI investments. Some firms are currently measuring employee productivity with GenAI tools and others are trying to assess both the intangible and tangible benefits that come with AI. Measuring value of AI (and especially GenAI) is going to become increasingly challenging for carriers as most common vendors are incorporating GenAI within their standard product offerings. This will make separating the GenAI productivity boost from the cost of the actual utility quite difficult to do. The LIMRA and LOMA AIGG is developing cost-benefit analysis (CBA) and return on investment (ROI) templates the industry can leverage and extend to their own needs as an augmentation to the existing methods being utilized by individual companies.

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The regulatory landscape for AI in the insurance industry is fragmented, with regulation specific to certain domains such as underwriting. Companies are preparing for potential regulation or regulatory guidelines and prioritizing ethical issues over methodological issues. Companies are cautious about deploying automated decision-making in high-value operational processes without human oversight and are focusing on safety, security, explainability, and transparency. Companies should be able to explain complex features of their in-house AI models and mitigate risks from unintended biases by conducting internal reviews of models. Model performance degradation should continue to be an area of focus, and firms should invest in building robust internal "guardrails" to ensure oversight and transparency.

2.4 Regulatory Landscape and Enterprise Risk Management

Our industry does not have regulation at the state or Federal level when it comes to AI. Regulatory guidelines as they exist are specific to the use of AI in certain domains, such as for the purposes of underwriting (automated and accelerated underwriting). Colorado Bill SB21-169 is an example of broad regulation that can provide guidance to the industry across the value chain. This bill is intended to protect "Colorado consumers from insurance practices that result in unfair discrimination on the basis of race, color, national or ethnic origin, religion, sex, sexual orientation, disability, gender identify, or gender expression. The legislation holds insurers accountable for testing their big data systems — including external consumer data and information sources, algorithms, and predictive models — to ensure they are not unfairly discriminating against consumers on the basis of a protected class. SB21-169 requires insurers to take corrective action to address any consumer harms that are discovered."[4] Another example is the National Association of Insurance Commissioners (NAIC) and their Accelerated Underwriting Working Group (AUWG) that states their charge is to "consider the use of external data and data analytics in accelerated life underwriting."[5] The State of New York issued a circular letter in 2019 that tackled the use of external consumer data and information sources in life insurance underwriting and has some guidelines applicable to the safe, effective, and transparent use of AI across the insurance value chain.

[4] *SB21-169 — Protecting Consumers from Unfair Discrimination in Insurance Practices*, Colorado Department of Regulatory Agencies, 2021.
[5] Accelerated Underwriting (A) Working Group, NAIC, 2024.

A New York State Department of Financial Services proposed insurance circular letter regarding "Use of Artificial Intelligence Systems and External Consumer Data and Information Sources in Insurance Underwriting and Pricing" emphasizes the state's expectations for insurers' use of emerging technologies like AI, including that all carriers using these technologies should be able to prove that any AI-driven underwriting or pricing guidelines are not unfairly or unlawfully discriminatory. The circular also recommends cross-functional management oversight representing key functions like "legal, compliance, risk management, product development, underwriting, actuarial, and data science, as appropriate." While this proposal is New York-specific, a carrier that doesn't currently compete there should understand the terms of the proposal in case it has the opportunity to serve companies or individuals in the state.[6]

The regulatory landscape with respect to AI is fragmented, making development of compliance policies challenging. The United States does not have overarching regulation covering AI, nor is one expected in the foreseeable future. This contrasts with the European Union (EU), which passed the EU AI Act in Q4 2023.[7] President Biden's executive order on AI, issued on October 30, 2023, provides a broad framework on the safe, secure, and trustworthy development and use of AI. As comprehensive as it is, it lacks regulatory muscle.[8]

IMPLICATIONS

Preparation for Regulation/Regulatory Guidelines: There is general awareness that AI is maturing so rapidly that regulation has not been able to keep up with advancements. It is likely any regulation in the future will be subject to interminable updates as AI continues to evolve. Carriers are employing common sense approaches to governing AI within their companies. Companies prioritize ethical issues (unintended bias or proxy discrimination) over methodological issues (such as model explainability and performance degradation for AI models developed in-house). It is vital that these issues be handled correctly since ethical challenges pose a greater reputational and legal risk to companies.

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[6] *2024 GenAI Insurance Trends*, LIMRA and PwC, 2024.
[7] *EU AI Act: first regulation on artificial intelligence*, Topics, European Parliament, 2024.
[8] Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence, The White House, 2023.

Humans in the Center: Companies go to great lengths to make sure their models behave in an ethical way: acting fairly, making unbiased decisions, and protecting customers' privacy. This is partly because the consequences of not doing so can be severe. If discovered, biases against protected classes (such as race, religion, gender, or sexual orientation) in company processes can become a tremendous reputational risk, even if they were unintended. For this reason, companies strive for transparency in their AI models, and they rigorously vet them to avert discriminatory outcomes. Companies continue to be wary about allowing fully automated AI decision-making and are cautious about deploying automated decision-making in high-value operational processes without human oversight. This is likely to continue until companies believe they can trust unsupervised AI processes to always make the same or better decisions than humans would in the same situation. Until then, the risk of autonomous AI engaging in unwise or unethical behavior is too great. Some firms ensure that autonomous AI processes are allowed to make decisions only with human approval. Others allow them to make only less weighty decisions, while they reserve the more important decisions for humans.

ACTIONABLE INSIGHTS

Focus on Safety, Security, Explainability, Transparency: The LIMRA and LOMA AI Governance Group intends to define what best practices look like for our industry in the absence of overarching industry AI regulation.

From an AI risk management perspective, carriers should continue to be cautious about autonomous AI decision-making without humans in the center. It will be imperative to focus on AI explainability. Carriers should be able to explain complex features of their in-house AI models and/or the AI-generated decisions that a third-party vendor has provided to business partners, regulators, customers, and/or other stakeholders. Even the most sophisticated model does not have any value unless the analyst can explain to business partners how it should be applied. An unexplainable model may also cause regulatory problems or ultimately become less likely to be adopted.

To improve explainability, firms should rely on documenting their data sources and variables thoroughly. Another common strategy that companies can use is to offer a demonstration of new models and applications to business partners. This will help facilitate adoption and ensure that the business interprets and applies the model results correctly. Companies can also simplify complex models to make them easier to implement when they go live. There are some challenges with this approach because some nuance, accuracy, or value of the model can be lost by oversimplifying it, even if doing so facilitates adoption. Firms should be thorough in their processes to mitigate methodological challenges that might diminish the accuracy of their models or impede adoption. Peer reviews, continuous performance monitoring, periodic refreshes, and transparent documentation will ensure that AI models are statistically sound at deployment, stay effective as time passes, and are explainable to non-technical stakeholders.

Fairness is a crucial aspect of AI that carriers need to pay attention to in order to avoid unintended biases or potential proxy discrimination from using variables highly correlated to protected classes. Companies can mitigate risks from unintended biases by conducting internal reviews of models. Companies should make sure to fully document the decisions they make when selecting data, variables, and models for the sake of transparency. For those firms that are building their own AI models, model performance degradation — models losing accuracy and becoming obsolete over time — should continue to be an area of focus. Firms should invest in building robust internal "guardrails" to ensure oversight and transparency.

RAPID READ:

AI, particularly GenAI, is expected to be as impactful as the rise of the internet and the release of the iPhone. While AI promises automation, cost savings, operational efficiencies, and productivity gains, it also raises concerns about job displacement, role eliminations, and the need to learn new tools and processes. The centralization of AI programs under CIOs has allowed firms to develop enterprise AI strategies that go top-down and capitalize on their collective knowledge and AI intelligence. Firms should focus on business process reengineering and reimagining, education and literacy, and preparing for the future workforce in the "Age of AI." Leaders should create adaptive workforce strategies that can be adjusted with AI advancements, ensuring that the firm remains responsive to rapid AI changes. Leaders should also focus on the importance of failing fast in ideation, which allows firms to quickly operationalize innovative solutions and address potential issues and risks early.

2.5 Cultural Changes and Change Management

The influence of AI, especially GenAI, in our industry is going to prove to be as impactful as the rise of the internet (including email) in the late 1990s through the early 2000s, and the release of the iPhone in 2007 ushering in the smartphone generation. AI will more than likely disrupt dozens of professions across dozens of industries, rendering some roles entirely extinct. However, AI will also result in the rise of dozens of new professions across dozens of existing and new industries that we might not be able to envision today. Remember, the rise of the iPhone created an entire app-based ecosystem.

We might be unable to fully contemplate the new jobs AI will create in our industry, but we can likely envision the jobs that might change significantly. If there are rote, repeatable, operational tasks that individuals are performing as a part of their jobs, it is highly likely that these tasks would be automated by AI over the next five years. While the promise of automation, cost savings, operational efficiencies, and productivity gains are real, so are the concerns about job displacement, role eliminations, and having to learn and relearn new tools and processes that will be ever changing. GenAI itself is going to result in massive business process reengineering and reimagination around utilization of its technology. Carriers will also have multiple generations in the workforce concurrently. All of this will lead to significant cultural changes within carriers, and leaders must pay close attention to the change management required to assist employees through the dawn of the "Age of AI."

IMPLICATIONS

Business Process Reengineering and Reimagining: AI, will necessitate significant reengineering of existing business processes, such that they can be reimagined with GenAI as a technology enabler. The complexity of reengineering any particular business process will be greatly contingent upon the

specific use case. For instance, incorporating GenAI into existing business processes with some retooling might be relatively straightforward if a marketing organization uses GenAI for brainstorming purposes, or if a paralegal uses GenAI to draft rote legal documents that make the person an editor versus an author. However, for reengineering of business processes that span multiple job functions within the same unit, or across the value chain, it will be a lot more complex to plan and reimagine.

Business process reengineering is less about the process and the technology. Depending on the depth and extent of this reimagination, it can be a cultural change. Managing the change curve will be of vital importance. Carriers should be careful not to transfer workload from one part of the firm to the other simply because GenAI pushed some tasks downstream or to a different unit. Carriers need to be diligent to guard against unintended consequences in the value chain.

Education and Literacy: As AI, and particularly GenAI, becomes increasingly integral to business operations, it will become vital for companies to ensure their employees are educated on its safe and effective use. Fostering AI literacy among employees will directly enhance efficiency and productivity by equipping them with the requisite skills to leverage AI tools effectively. By having some basic understanding of AI, employees can be instrumental in identifying tasks that can be automated, freeing up their time to focus on higher-value-add activities and achieving operational efficiencies. Carriers have continued their journey to become increasingly data driven, and having familiarity with AI tools will enable employees to make data-driven decisions and leverage their human judgement. One of the most pervasive uses of GenAI in the industry in Q2 2024 is for idea generation and brainstorming. While GenAI can assist in brainstorming, employees need to understand its capabilities in order to harness its full potential for innovation. AI-savvy employees will be better equipped to experiment with AI-driven use cases and proofs of concept to iterate quickly, accelerating the innovation cycle.

From a risk management perspective, employees who are educated in the basics of AI are more likely to understand the importance of data security and its ethical implications, ensuring responsible and secure use of AI technologies. AI literacy will help employees recognize and mitigate potential biases in models, thereby promoting fairness and inclusivity in AI applications. By understanding the ethical considerations

of AI, employees can develop and deploy solutions that align with the carrier's values and ethical standards. If and when regulation does emerge, AI-literate employees are better equipped to navigate and comply with regulatory requirements, reducing the risk of legal, compliance, and reputational issues.

ACTIONABLE INSIGHTS

Future of Work and Future of Jobs: According to a Deloitte report in Q2 2024 that examined multiple industries and sectors including financial services, most organizations (75 percent) expect the technology to affect their talent strategies within two years; 32 percent of organizations that reported "very high" levels of Gen AI expertise are already making changes. The most expected talent strategy impacts are process redesign (48 percent) and upskilling or reskilling (47 percent).[9]

GenAI is expected to increase the value of some technology-centered skills (such as data analysis) as well as human-centered skills (such as critical thinking, creativity, and flexibility), while decreasing the value of other skills. In the short term, more organizations said they expect the technology to increase head count (39 percent) than to decrease head count (22 percent) — perhaps due to increased needs for generative AI and data expertise.

As AI and GenAI continue to advance and permeate across the industry, carriers increasingly face the critical task of anticipating and preparing for the future workforce. Identifying the skills and jobs that will be required in the next five years due to these technological changes is essential for maintaining competitiveness and fostering innovation. It will be important for leaders to work with their human resources partners to develop a strategy on employee skilling and reskilling, how existing jobs are likely to change in the next three to five years, what skills will be needed in the next five years, and start building flexible hiring plans now with an eye towards the future. Preparing for the future workforce in the "Age of AI" requires a proactive and multifaceted approach. By conducting comprehensive workforce analyses, engaging with industry consortia such as the AIGG, connecting with experts, fostering a culture of continuous learning, and implementing agile workforce planning, carriers can effectively identify and develop the skills and jobs that will be crucial in the next five years.

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[9] *The State of Generative AI in the Enterprise*, Deloitte, 2024.

Leaders should begin by conducting a comprehensive workforce analysis that outlines skill gaps from the current skill sets of employees and compares them with the projected skills needed in an AI-driven future. This will help leaders identify existing gaps and areas for development. Given the fluidity of the AI landscape, it will be important to ensure that carriers regularly revisit these skill gap assessments. Leaders should create adaptive workforce strategies that can be adjusted with AI advancements, ensuring that the firm remains responsive to rapid AI changes. Review existing job roles to determine how AI and GenAI might alter or enhance them. Identify roles that could be automated and those that will require advanced human skills. Leaders in our industry would do well to identify which jobs and job functions are seeing a lift in productivity as use cases for AI, especially GenAI, become operationalized within companies. Leaders should work with consortia such as the AIGG to help them anticipate new job roles that AI advancements might create.

Carriers should develop comprehensive upskilling and reskilling programs to equip employees with the necessary skills to work alongside AI. Firms should also focus on soft skills development and human abilities such as critical thinking and building business acumen. LOMA professional development courses are going to prove invaluable in developing business acumen employees can leverage to ensure that the "human in the center" judgment aspect of AI-enabled jobs continues to be at the forefront.

Fail Fast in Ideation: As organizations experiment with AI and GenAI use cases, the concept of "failing fast and learning faster" becomes crucial. With AI ideation programs, the ability to rapidly test and iterate ideas can enable carriers to quickly operationalize innovative solutions. However, it is generally understood that a portion of these use cases will not reach expected results. Some might be deferred to be revisited in the future, while others might just outright fail.

Leaders should ensure that the historic cultural connotations around failure do not jeopardize ideation. Leaders should work to create a work environment where employees feel safe to take risks and fail without fear of punitive measures. They should encourage constructive feedback and open discussions about failures, focusing on what can be learned rather than assigning blame. Leaders might want to consider recognizing and celebrating efforts and lessons learned from failed experiments as much as successful outcomes. The failure of a certain number of use cases should not cause your entire innovation pipeline to fail because employees are afraid to fail (or rather be castigated for failing). It is important to nurture an environment where each failure is a source of valuable insights that contribute to refining use cases and strategies, leading to more robust and effective AI implementations. Early failures expose potential issues and risks early. This allows firms to address them before they escalate into larger problems. Failing fast also means that carriers are able to discover ineffective approaches sooner, reducing wasted resources and investment in unproductive paths.

Keep Focus on Fundamentals: The "Age of AI" has ushered in a seminal moment that is fundamentally transforming our society and our industry. The promise of AI is alluring, but executives should not lose sight of the core fundamentals of the pursuit of enterprise excellence. Primary among these are the organizational culture and change management as discussed above. Second, AI should not be applied in silos. Digital transformations implemented for specific domains in the value chain have resulted in a digital "rollercoaster effect" where some parts of a firm are much more digitally advanced than others. This has resulted in a disjointed experience internally, as well as rendered the concept of a frictionless customer experience — across the value chain — harder to attain. Eradication of enterprise silos with respect to AI is going to be vital to prevent a firm that has AI "haves" and "have nots."

The impact and influence of data in the AI journey cannot be overstated. Our industry consumes and generates vast amounts of data. Paradoxically, we have underleveraged our organizational data assets, having treated data as a by-product of our systems and digital transformations, and not as a product. In such a scenario, it is challenging to attain AI scale across the insurance value chain with data scattered across system silos of uncertain quality. Every critical facet of enterprise data — quality, availability, privacy, security, and literacy — are going to be even more important when it comes to AI. An organization simply cannot have great AI with bad data. The mindset around enterprise data will prove to be one of the key inhibitors of AI success within organizations. Being a cultural shift in how organizations treat data has to be championed from the top down and amplified across every level of the organization.

Organizations with a robust data strategy and governance program are those that will see better results with their AI investments. Data strategy and governance does not only mean having access to enterprise data in a central location such as data warehouses or data lakes. Data management (data governance in practice) includes ensuring that data issues feature at the forefront of a firm's objectives and that sound data management techniques are ensconced in daily operations. Leading organizations are champions of their data quality management practices and are confident in the efficacy of their data — especially data used for AI-related decision-making.

Every critical facet of enterprise data — quality, availability, privacy, security, and literacy — are going to be even more important when it comes to AI. An organization simply cannot have great AI with bad data.

Firms that will lead the AI race should prominently feature AI (and data) in their corporate enterprise objectives (of course, tied directly to desired business outcomes) and prioritize appropriately. Data-related programs across our industry — those that focus on quality and efficacy — have been especially susceptible to a lack of sustained focus and funding. This focus on data needs to be espoused as the enterprise undertakes digital transformations in order to ensure that organizations aren't simply focusing on new technology and systems without solving for the inherent data opportunities resident within them.

Enterprise data literacy will likely be one of the most critical areas that firms would benefit by focusing on. MIT defines data literacy as "the ability to read, work with, analyze, and argue with data." According to a Gartner study, only one third of employees across an average organization can confidently understand, analyze, and argue with data. This implies that two thirds of people in most firms might not instinctively be able to consistently discern good data from bad data. Bad data costs the U.S. $3T annually. Studies state that 40 percent of enterprise data is either inaccurate, incomplete, or unavailable, resulting in businesses failing to achieve their data-driven goals — and that the cost of bad data is 15 percent to 25 percent of revenue for most companies. It is therefore an organizational imperative to educate employees about the value of data and measurably increase data literacy, empowering them to solve data issues as they encounter them.

Legacy systems are the albatross around the industry's collective neck. In addition to requiring diminishing and niche skillsets, being expensive, brittle and fragile to operate, and posing cybersecurity challenges, legacy systems are notorious for the poor quality of their data. This leads to a unique challenge where organizations transact active business on these antiquated systems with incomplete, missing, and poor data, albeit data that might be necessary for the broader AI goals of a firm. Legacy systems will continue to prevent sustained digitization and any meaningful adoption of AI. Carriers are advised to continue making progress on their modernization strategies. This paper published in June of 2021 from LIMRA and LOMA in partnership with McKinsey & Company offers a guide on effective modernization strategies: *Platform Modernization: Best Practices to Tackle an Evergreen Problem*.

LEARN MORE about the AI Governance Group (AIGG) **here**.

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