Reimagining Fashion Retail with Generative AI

**Toward an AI-Native
Integrated Platform Strategy**

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1. The Potential of Generative AI in a Transforming Fashion Retail Industry

The fashion retail industry[*1] has long faced structural challenges–accelerated trend cycles, unpredictable demand, and operational inefficiencies rooted in manual, experience-based decision-making. As globalization and digitalization continue to reshape the market, traditional models are increasingly under pressure.

At the same time, consumer behavior is undergoing a major transformation. While older generations still value in-person service and brand trust, younger consumers–digital and AI natives–engage with fashion as a means of self-expression and identity building, primarily through social media. For them, fashion is less about utility and more about storytelling.

The media landscape has also shifted. Traditional fashion magazines and opinion leaders have given way to platforms like TikTok, where short-form viral content and consumer-driven influence dominate. This shift signals the rise of the "consumer leader" era–where everyday individuals shape trends in real time.

Amid these changes, Generative AI is emerging as a strategic response. Beyond process automation, it offers the ability to reimagine creativity across design, marketing, customer experience, and operations–enabling both speed and personalization at scale.

What's most transformative is its capacity to bring data-driven, dynamic decision-making into areas traditionally governed by intuition. This marks a true paradigm shift toward the automation of creativity, positioning generative AI not just as a tool for efficiency, but as a strategic foundation for redefining brand value and customer experience.

*1 In this paper, the term fashion retail industry refers to businesses that handle fashion and related items, and that manage and integrate the value chain–including planning, design, sales, and marketing–under a brand-driven model.

2. The Current Frontline of AI Adoption – Case Studies from Leading Brands

In the fashion retail industry, digital transformation (DX) and traditional AI technologies have already delivered measurable results in key areas such as inventory optimization, demand forecasting, and marketing efficiency. While the degree of adoption varies across brands, recent years have seen the gradual introduction of generative AI and Agentic AI. This section highlights case studies from four leading brands that are shaping the industry's AI landscape (see Figure 1).

Table1 Leading Brands and Their AI Use Cases – Overview & Key Impacts

Brand	AI Use Case Overview	Business Impact
LVMH	• MaIA: Cross-organizational AI platform for data-driven decision-making • Generative AI for advertising and content creation • Personalized customer messaging automation • Optimized Operations and Supply Chain Agility	• Reduced reliance on individual intuition; enhanced decision consistency • Faster, high-quality creative output • Consistent delivery of luxury-brand customer experience • Optimizing revenue and profitability, ensuring sustainability
ZARA (Inditex)	• AR-based virtual try-ons to support purchasing decisions • AI-driven fabric optimization and pattern layout • Machine learning for demand forecasting and dynamic pricing • Supply Chain Optimization	• Significant reduction in return rates and inventory losses • Improved manufacturing speed and minimized material waste • Enhanced store operations efficiency • Optimizing revenue and ensuring sustainability
SHEIN	• Real-time product development via consumer data (C2M model) • Over 6,000 new SKUs launched daily through AI trend detection • Chat AI for customer support	• Extreme shortening of product development cycle (within days) • Maximized sales opportunities by responding instantly to trends • Scalable customer service operations
Nike	• Nike Fit scans feet for accurate sizing suggestions • Nike By You supports personalized product design • A.I.R. project uses generative AI for mass creative design • Supply chain optimization and automatic price adjustment	• Lower return rates and stronger consumer trust • Increased engagement through personalized product offerings • Breakthrough in design prototyping time (from weeks to hours) • Supply chain efficiency, profit optimization
Fast Retailing	• Predicting demand using sales data and customer feedback through the Ariake Project • Managing products with RFID and linking with automated warehouses for real-time inventory tracking • Analyzing over 30 million customer comments annually with AI to improve products • UNIQLO IQ: chatbot and conversational AI for customer service	• Reduces stockouts and excess inventory, lowering costs and lost opportunities • Improves delivery speed and reduces costs through automation and efficiency • Enhances quality of staple products, boosting customer satisfaction and repeat purchases • Doubles customer service efficiency, reaching 2 million users

Source: Researched and compiled by the author

LVMH

LVMH[*2] is leveraging AI across its ecosystem of 75 brands, enhancing supply chain planning, pricing, product development, marketing, and customer relationship management. The company utilizes a diverse set of AI technologies–including predictive AI, generative AI, and agent-based AI–supported by a centralized data infrastructure known as the "AI Factory," co-developed with Google Cloud. Strategic investments in AI startups and a design philosophy of "quiet technology"–which emphasizes human-centric innovation without overtly showcasing the tech–also contribute to LVMH's success. However, use cases involving Agentic AI built on generative models have yet to emerge in a meaningful way.

ZARA (Inditex)

ZARA[*3] is known for applying practical, operations-driven AI solutions, such as RFID-based inventory tracking, POS data integration, and dynamic pricing, enabling real-time supply chain coordination and efficient stock management. The brand has also implemented AI to improve assortment planning and sales forecasting. However, there is limited evidence of active deployment of generative AI in creative areas like product design or content generation. Overall, ZARA's AI strategy reflects a focus on demand-supply optimization through "practical AI" rather than transformative innovation.

SHEIN

SHEIN[*4] stands out with its AI-driven "ultra-fast fashion" model, which uses e-commerce behavioral data and real-time trend detection from social media and search platforms to drive rapid design and production cycles. Generative AI supports the creation of design prototypes, marketing visuals, and promotional copy–often in collaboration with human creators. However, challenges remain in integrating generative AI more holistically, particularly in workflow optimization, human-centric design, and interactive customer engagement powered by AI.

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*2 Isabelle Bousquette (June 9, 2025) "LVMH Bets on AI to Navigate Luxury Goods Slowdown";
     Anthony Cirot (June 10, 2025) "Inside LVMH's perfectly manicured data estate, where luxury AI agents are taking root";
     Dany Kitishianetc (July 15, 2025) "LVMH AI Strategy: Analysis of Dominance in Luxury AI", etc.
*3 Super AGI (June 30, 2025) "Real-World Success Stories: How Top Brands Are Using AI Inventory Management to Optimize Stock and Reduce Costs"; Panda Wang (July 18, 2025) "Why Zara's Fast Price Changes Matter in 2025";
     ABITA LLC&MARKETING JAPAN (September 12, 2024) "Zara's capture of the French market: the reasons for its success from an outlandish perspective"; etc.
*4 Hien (August 8, 2025) "Shein Net Worth, Revenue and Growth Statistic 2024 Analysis";
     The Fword (Accessed August 10, 2025) "How AI in Retail is Transforming the Fashion Industry: Insights from Shein's Success";
     Majid Bahi (July 8, 2024) "Goodbye originality: why Shein's fast AI fashion suggests the future of marketing is about faking it", etc.

Nike

Nike[5] integrates AI across its digital ecosystem, including its membership base and mobile apps. Applications span demand forecasting, inventory optimization, personalized recommendations, AI-driven customer support, and dynamic pricing. Notably, tools like Nike Fit (for foot scanning and sizing) and Nike By You (for product customization) showcase how generative AI enhances customer experience and creative design. AI is no longer just a support tool for Nike–it is core to the brand's strategic shift from traditional wholesale distribution to a direct-to-consumer (DTC) tech-driven enterprise.

Fast Retailing

Like ZARA, Fast Retailing[6] operates within the fast fashion space but distinguishes itself through a vertically integrated SPA (Specialty Store Retailer of Private Label Apparel) model. Rather than simply chasing trends, the company is guided by the philosophy of "Life Wear"–the creation of ultimate everyday clothing–anchored in a vision for a new, sustainable industry with zero waste and circularity at its core.

This foundation supports an AI strategy focused on precision and longevity, setting it apart from speed- and trend-driven approaches. AI is leveraged to enhance accuracy across product development, distribution, and retail operations–prioritizing quality, minimizing waste, and maximizing long-term customer value. A robust data infrastructure powers AI-driven demand forecasting, while the company advances digital transformation through initiatives like the Ariake Project, positioning itself as an "A digital-driven manufacturing and retail company."

Shared Patterns and Future Direction

A common trait among these brands is the "point-based" use of AI–targeting specific business functions rather than pursuing integrated transformation. The next frontier involves harnessing generative and Agentic AI not just to optimize operations, but to reinvent creativity, streamline cross-functional processes, and reshape the overall brand experience.
To achieve this, companies will need to move beyond isolated tools and instead build integrated generative AI platforms that seamlessly connect design, sales, customer engagement, and operational support.

*5 Dany Kitishian (July 23, 2025) "Nike's AI Strategy: Analysis of Dominance in Athletic Apparel, Footwear";
     Digital Defynd (Accessed August 10, 2025) "7 Ways Nike is Using AI [Case Study][2025]";
     Smart Dev (August 4, 2025) "AI in Fashion: Top Use Cases You Need To Know", etc.
*6 Dany Kitishian (July 24, 2025) "Fast Retailing's AI Strategy: Analysis of Dominance in Apparel"; Fast Retailing press releases, etc.

3. The Evolution of Generative AI in Fashion Retail: From Siloed Optimization to Holistic Transformation

As demonstrated in the case studies of leading brands in the previous section, the current application of AI in fashion retail remains largely focused on operational efficiencies–such as demand forecasting and inventory management–enabled by traditional predictive AI. While generative AI has begun to be utilized in areas like product development and marketing content creation, these efforts are still largely confined to individual departments. The adoption of agentic AI–generative AI embedded within task-specialized, autonomous agents–remains limited at this stage.

To build and sustain a competitive advantage going forward, however, the industry must shift from piecemeal adoption to a more integrated, end-to-end approach. What is required is the creation of a brand-led generative AI infrastructure that unifies the entire value chain–from planning and design to production, sales, and after-service–under a shared digital foundation. The current mode of siloed optimization through legacy DX and isolated AI tools is reaching its limits. The next leap lies in system-wide optimization and data-driven decision-making at scale.[*7]

Why Brand-Led Integration Is Crucial

To date, most companies have introduced AI in a compartmentalized manner–applying it to discrete tasks such as customer service support, stock optimization, or demand prediction. While many of these initiatives have delivered measurable gains, they are now approaching a plateau in terms of transformative impact.

The emergence of generative AI opens new possibilities–not just for automating tasks, but for connecting workflows, datasets, and people in ways that fundamentally reshape value creation. For example, imagine a closed-loop ecosystem where real-time customer behavior data–collected through stores or e-commerce–feeds directly into product planning, design, manufacturing, and sales strategies. Such a system enables brands to reimagine the customer experience with unprecedented agility and cohesion.

This level of integration cannot be achieved through isolated tools or by delegating AI implementation solely to IT departments. Instead, brands themselves must take the lead–as architects and orchestrators of generative AI platforms–embedding these systems into the core of their operational and strategic frameworks. The question is no longer whether companies can use AI, but whether they can reconstruct value creation around AI as a central, dynamic force.

[*7] Jianmin Jin (August 2025) "Financial Services DX2.0: A Future Strategy Co-Created with AI Agents–Beyond DX1.0–Unlocking the Next Stage of Value Creation–"

The Complementary Roles of Predictive, Generative, and Agentic AI

Achieving holistic optimization across the fashion retail value chain requires more than a blanket embrace of AI technologies. It demands a design philosophy that recognizes the distinct strengths, roles, and limitations of each AI type—and orchestrates their use accordingly (see Table 2).

Table2 AI Capabilities in Fashion Retail: A Comparative Overview

Aspect	Traditional AI (Predictive)	Generative AI	Agentic AI
Core Strength	Fast and accurate processing of structured data	Creation and transformation of unstructured data (text, image, etc.)	Task execution and coordination through autonomous, specialized agents
Key Use Cases	Demand forecasting, price optimization, inventory planning	Product ideation, marketing content generation, customer interaction (text/image)	Workflow orchestration, scenario-based automation, decision-making assistance
Advantages	High accuracy, reliability, effective for repetitive and data-rich tasks	Creativity, adaptability, ability to personalize and contextualize	Handles complexity, dynamic adjustment, multi-agent collaboration
Limitations	Limited to predefined parameters; lacks adaptability to non-routine or creative tasks	May generate biased or low-quality content; requires careful prompting and validation	Still developing in reliability and transparency; orchestration logic is complex
Ideal Application Areas	Operations, logistics, supply chain	Planning, design, marketing, customer experience	Process automation, integrated decision flows, cross-functional task management

Source: Author

- Predictive AI, based on structured data, excels in high-accuracy forecasting and optimization. It is particularly effective in areas like demand prediction, inventory allocation, and price optimization.
- Generative AI leverages unstructured data—such as text, images, and audio—to handle creative tasks like language generation, design ideation, and content creation. It is highly versatile in planning, customer experience, and personalized marketing.
- Agentic AI refers to autonomous agents purpose-built to carry out specific tasks, often working together in coordination to manage more complex, multi-step processes. It holds significant potential for intelligent decision support and automated operations.

Rather than deploying each of these AI technologies in isolation, companies must take an enterprise-level, integrated approach—strategically designing and managing systems that combine generation, orchestration, and execution into a seamless digital foundation. This shift signals a move away from "tool-based digital transformation" and toward a truly AI-native operating model.

AI Across the Fashion Retail Value Chain: Use Cases and Business Impact

Table 3 presents a consolidated view of how different AI technologies can be deployed across the fashion retail value chain–and the types of business impact they can deliver.

Table 3 Example use case of generative AI in the fashion retail industry

Value Chain Function	Use Case Overview	Expected Business Impact
Product Planning & Design	Generating next-season product concepts by analyzing customer reviews and social media data (Generative AI)	Higher alignment with customer needs, faster identification of hit products, and shorter development cycles
Production & Inventory	SKU-level inventory optimization using demand forecasting (Predictive AI) + auto-ordering via Agentic AI	Reduced stockouts, minimized overstock, and optimized logistics costs
E-commerce & In-Store CX	Personalized customer service via chat-based AI + styling suggestions (Generative AI)	Improved conversion rates and customer satisfaction; reduced burden on store staff
Marketing	Multilingual, culturally adaptive content generation (Generative AI) + automated campaign orchestration (Agentic AI)	Accelerated marketing execution and increased efficiency in global expansion
After-Sales & CRM	AI chatbot and agent collaboration for handling returns and re-sale suggestions (Generative AI + Agentic AI)	Enhanced customer loyalty and maximized lifetime value (LTV)

Source: Author

The interplay among Predictive AI, Generative AI, and Agentic AI reveals how these technologies can complement one another to drive holistic optimization.

Conclusion: Generative AI as the New Intelligent Core of the Enterprise

The era of treating generative AI as just another productivity tool is coming to a close. For fashion retailers to thrive in the years ahead, they must reimagine generative AI as a strategic platform–an intelligent infrastructure at the heart of enterprise value creation.
At the center of this transformation lies a triad of technologies–Predictive AI, Generative AI, and Agentic AI–operating not as isolated solutions but as an integrated ecosystem. And just as importantly, the brand must take ownership of this ecosystem: architecting, governing, and activating it across all departments.
The future of competitive advantage will not hinge on simply using AI–but on the ability to rebuild the business around it.

4. What an Integrated Platform Should Look Like in the AI Era

Fujitsu recognizes that traditional, siloed system integration approaches are no longer sufficient to address increasingly complex business challenges. It emphasizes the importance of enabling organizations to independently leverage data and AI to drive continuous evolution across management and operations.[8]
To support this shift, Fujitsu proposes **the Enterprise Agentic Foundation**–a self-directed enterprise platform designed to help organizations fully harness the value of data and AI. This includes transitioning to agent-oriented operations, modernizing IT environments, and embedding security across all business processes.

Furthermore, according to Dr. Hiromichi, Kobashi (Senior Project Director) of Fujitsu's AI Research Institute, the concept of an "Enterprise AI Agent Platform" has been proposed. This concept envisions a future in which multi-AI agents collaborate not only within a single company but also across organizational boundaries–shifting from orchestration to true collaboration between AI agents from different enterprises.

In light of the above, the author believes that for fashion retail companies to evolve into AI-native enterprises–where AI serves not merely as an operational tool but as a core driver of value creation–a redefinition of integrated platforms that support cross-functional intellectual activities is essential.
To achieve this, the traditional IT-centric three-layer model of IaaS, PaaS, and SaaS is no longer sufficient. Instead, a new framework is proposed: a four-layer structure in which technology, knowledge, operations, and command governance are organically connected.

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*8   Fujitsu Press release (June 26, 2025) "Fujitsu's Uvance Wayfinders consulting empowers customers to evolve business foundations leveraging data and AI"

A Four-Layer Architecture for the AI-Native Enterprise Platform

The proposed platform consists of the following four interdependent layers (See Figure 1):

(1) Infrastructure Layer

This foundational layer provides a scalable and secure environment, including cloud, connectivity (5G/6G), edge computing, identity management, and cybersecurity—shared across the enterprise to ensure operational stability and efficiency.

(2) Knowledge Construction Layer

At the core of intelligence creation, this layer brings together large language models (LLMs), internal documentation, domain knowledge, and knowledge graphs. It enables continuous learning and organizational knowledge-sharing. Generic AI agents—like legal bots or prompt-enhancement assistants—are housed here and made available across departments.

(3) Business Intelligence Layer

Tailored to each business area, this layer supports AI agents and scenarios developed for planning, customer service, promotions, inventory, and more. It encourages bottom-up innovation while clarifying KPI ownership at the domain level—ensuring both agility and accountability.

(4) Orchestration Layer (emerging)

This layer governs agent interactions, integrates data flows, harmonizes UX, and supports enterprise-level decision-making. As Agentic AI advances, this layer will serve as the "intelligent command center" of the organization.

Figure 1 AI native integrated platform configuration diagram
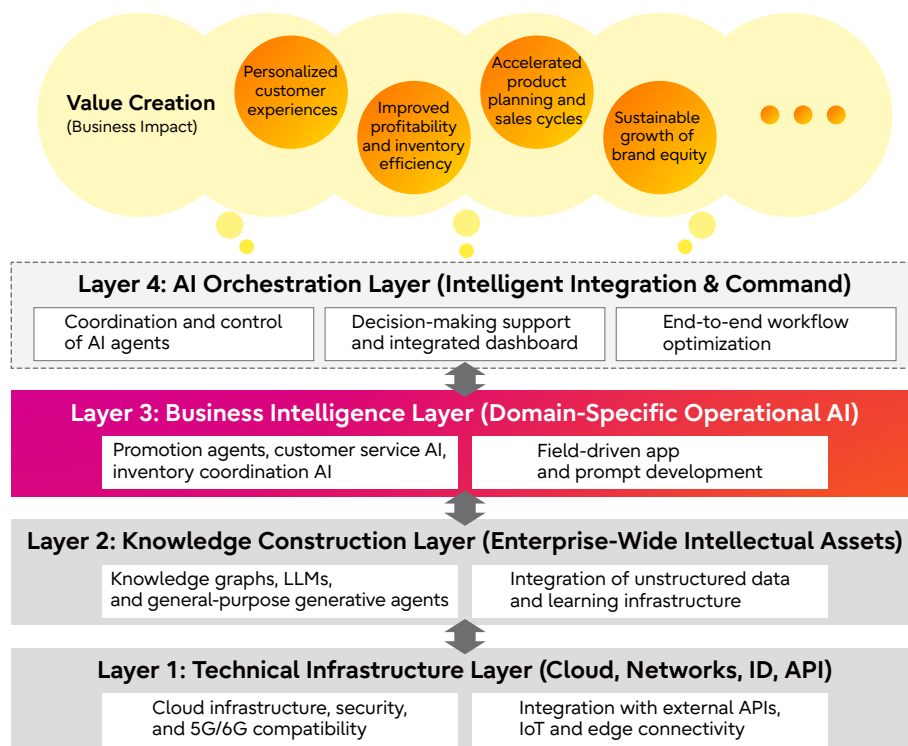
Source: Author

Operating Model: Balancing Standardization and Flexibility

This layered architecture is not just a technical framework–it also reflects how governance and operational responsibility should be distributed.

- Layers 1 & 2 (Infrastructure and Knowledge) are managed enterprise-wide, ensuring consistency in cost-efficiency, security, and quality.
- Layer 3 (Business Intelligence) empowers individual business units to build tailored solutions, fostering speed and adaptability while maintaining strategic alignment.
- Layer 4 (Orchestration) connects everything, ensuring enterprise-wide optimization through seamless collaboration and smart coordination.

In this model, top-down governance and bottom-up innovation coexist–enabling sustainable and scalable AI transformation.

Why This Matters for Fashion Retail

Fashion retail operates in a uniquely complex environment–driven by rapidly shifting consumer tastes, shorter product life cycles, and the demands of omnichannel engagement. This platform architecture helps meet those challenges by enabling:

- Real-time use of unstructured data (e.g., social media, reviews) to inform product development (Knowledge Construction Layer)
- Integrated customer, store, and inventory data to support dynamic promotion planning (Business Intelligence Layer)
- Coordinated agent interactions to simultaneously optimize operations and customer experience (Orchestration Layer)

In essence, the goal is not to optimize parts in isolation–but to build a living, learning organization where knowledge and creativity flow across all functions.

The future of fashion retail won't be defined by how well companies "use" AI–but by how boldly they restructure their value creation around it.
And it is this AI-native integrated platform that will form the foundation of that transformation.

5. Co-Creating the Next Chapter of Fashion Retail with AI

The AI-native integrated platform proposed in the previous section is more than a blueprint for operational efficiency. It marks the beginning of a strategic journey toward redefining how value is created in fashion retail. What will truly unlock the potential of generative AI is not the technology itself, but the transformation of business structures, operational workflows, and–most critically–the mindset and skills of the people who lead and work within them.

In the era ahead, intelligence will become a utility–ubiquitous, low-cost, and accessible to all, much like electricity or water. Within this landscape, fashion retailers must move toward a new model one where AI drives automation at scale, while humans provide oversight, coordination, and strategic direction.

Fashion, by nature, is a human-centric industry–rooted in emotion, creativity, and cultural expression. As AI takes on more repetitive and analytical tasks, human talent will be freed to focus on the uniquely human dimensions of value: empathy, intuition, and innovation.
This co-creation between augmented human creativity and commodity-level intelligence will define the next stage of evolution in fashion retail (See Figure 2).
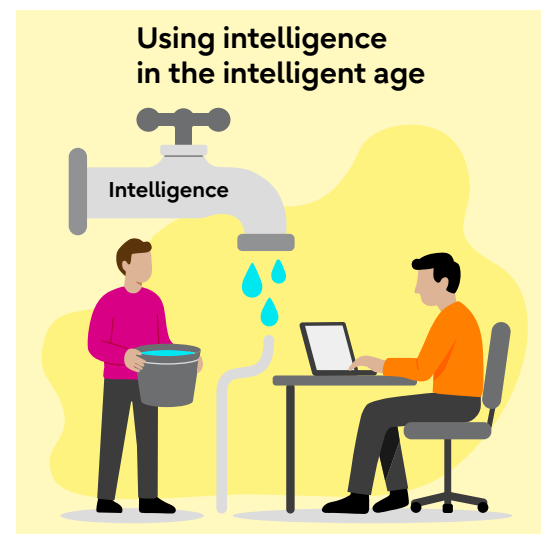
Figure 2 The future vision of intelligent organizations, envisioned by humans and AI

AI-driven automation + human monitoring and coordination
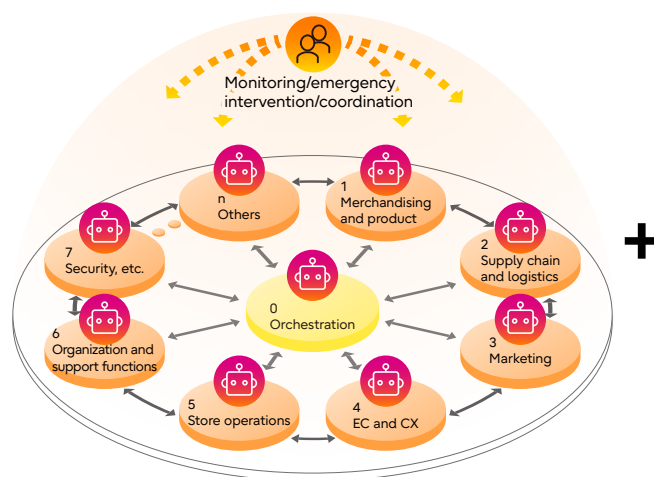
Human-driven intelligence utilization and cognitive augmentation

Source: Author

Source: Author design/AI creation

We now stand at the threshold of an era where humans and AI collaborate as partners. For fashion leaders, this means reimagining the retail experience not just as a technological transformation, but as a human-centered reinvention–where intelligence enhances, rather than replaces, the essence of fashion. This is the new chapter we are about to write–together.

About the author

Dr. Jianmin Jin

2020-　　　Fujitsu Ltd., Chief Digital Economist
1998-2020　Fujitsu Research Institute, Senior Fellow
Dr.Jin's research mainly focuses on global economic, digital innovation/ digital transformation, and Dr. Jin has published books such as "Towards the create of a Japanese version of Silicon Valley", etc.
Recent writings: the following Fujitsu Insight Paper, etc.

- [Financial Services DX2.0: A Future Strategy Co-Created with AI Agents–Beyond DX1.0– Unlocking the Next Stage of Value Creation–](#) (2025.08)
- [AI Agents and the Pathway to Evolving Intelligent Manufacturing](#) (2025.06)
- [Creating a Virtuous Cycle of Transformation and Trust: A Future Strategy Powered by AI and Net Positive Thinking](#) (2025.06)
- [AI Agents and the Transformation of the Financial Industry](#) (2025.04)
- [AI agent innovates: Pushing the boundaries of Generative Tech](#) (2025.03)
- [Designing the Next Generation of Intelligent Manufacturing with Generative AI](#) (2025.01)

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