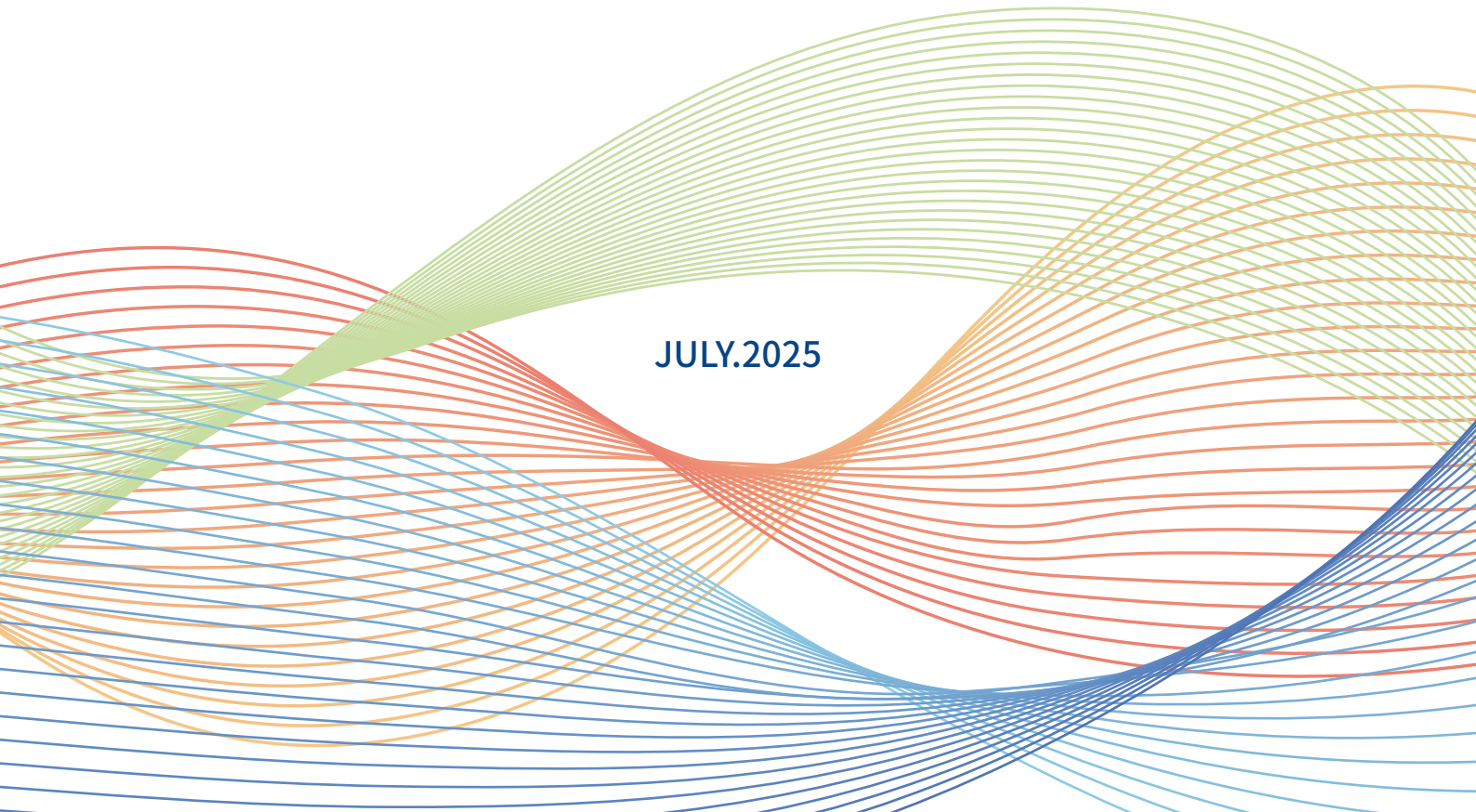
世界互联网大会 World Internet Conference

天翼智库 中国电信研究院

Outcomes of World Internet Conference Think Tank Cooperation Program

Digital Silk Road: A New Global Digital Economy Ecosystem Co-created and Shared by Platform Enterprises

China Telecom Research Institute Esurfing Think Tank



JULY.2025

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Foreword

We are currently in the wave of revolutionary breakthroughs in digital technology, the evolution of global political multipolarity, and the profound restructuring of the economic paradigms, co-building the Digital Silk Road has emerged as a vital pathway for deeper integration into globalization. New-generation information and communication technologies, represented by Cloud Computing, Artificial Intelligence (AI), and the Internet, not only profoundly reshaping production methods and lifestyles but are also poised to become pivotal forces in advancing global connectivity and fostering shared development.

As key organizers and innovation engines in the digital economy era, platform enterprises possess advantages in resource integration, technological innovation, and ecological integration, enabling them to unleash enormous potential and value in digital infrastructure, localization strategies, and digital governance. With platform enterprises as the mainstay, promoting the high-quality development of the Digital Silk Road through the model of co-creation and sharing has emerged as a new paradigm for driving regional and even global economic growth.

Against this backdrop, China Telecom Research Institute Esurfing Think Tank has innovatively assessed the opportunities to co-build a global digital economy ecosystem via the collaboration between the Digital Silk Road and platform enterprises. The report systematically defines the connotation and core roles of platform enterprises, and points out that the construction of the Digital Silk Road is presenting three new trends: technological empowerment, market co-creation, and institutional innovation, which jointly form the "tripartite synergy" new driving force for development. It further delves into four innovative models emerging from representative platform enterprises across cloud computing, cross-border e-commerce, fintech, and digital entertainment within Digital Silk Road co-creation initiatives.By integrating multidimensional practical cases, the report charts a comprehensive roadmap for platform enterprises to co-build and share a new global digital economy ecosystem, providing policymakers, enterprise practitioners, and research institutions with actionable references and guidelines in the process of advancing the Digital Silk Road.

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I.Development Opportunities of the Digital Silk Road

(Ⅰ)Development Background of the Digital Silk Road

As the global digital economy accelerates integration and the process of regional economic integration continues to advance, under the guidance of the concept of building a community with a shared future for mankind, the Digital Silk Road has emerged. It serves as an important bridge for deepening international cooperation and achieving common prosperity.

Close regional cooperation drives the construction of the Digital Silk Road. Guided by national strategy and policy impetus, the Digital Silk Road has evolved from its initial conceptualization to the signing of multi-sectoral cooperation agreements, and ultimately into a comprehensive cooperation initiative, continuously expanding its scope and depth. After more than a decade of development, the number of countries cooperating in the Digital Silk Road has reached 18. During the Third Belt and Road Forum for International Cooperation, these 18 countries jointly initiated the "Beijing Initiative on the Belt and Road International Digital Economy Cooperation", reaching 20 consensuses covering aspects such as strengthening digital connectivity and promoting industrial digital transformation.

Economic and technological environments drive the development of the Digital Silk Road. The global digital economy continues to expand, with collective breakthroughs in digital technologies and accelerated deployment of cutting-edge applications, prompting countries to accelerate their digital transformation. Concurrently, 5G commercialization is now widespread globally, fostering applications in AR/VR, ultra-high-definition video transmission, industrial internet, and smart cities. Breakthroughs in high-performance Multimodal Large Language Models (MLLMs) have been achieved, and the application of Artificial Intelligence (AI) in personal consumption, industrial manufacturing, medical services, and other fields is continuously maturing and popularizing. Blockchain infrastructure is beginning to take shape.

National endogenous demand supports the advancement of the Digital Silk Road. The Belt and Road countries exhibit significant disparities in digital economy development, creating an urgent need to bridge the digital divide. Simultaneously, China's leading digital economy development and significant digital technology innovations drive the Digital Silk Road forward. Among the Belt and Road countries, those in East Asia and the Pacific, Association of Southeast Asian Nations (ASEAN), and Central and Eastern Europe have the most advanced digital economies, while those in Central Asia and South Asia are relatively underdeveloped[1].China's core digital economy industries are steadily expanding, with their added value accounting for approximately 10% of GDP in 20242. China ranks second globally in the number of AI enterprises, becoming a core force driving AI industry development. The Blockchain-based Service Network (BSN) is accelerating its deployment and application, upgrading digital trade.

(II)Development Opportunities of the Digital Silk Road

As the Belt and Road Initiative deepens, the Digital Silk Road has become a core engine for promoting regional coordinated development and narrowing the global digital divide. Building a multi-faceted digital connectivity environment, both hardware and software, is an important direction for the development of the Digital Silk Road. Guided by the digital needs of participating countries, nations are strengthening infrastructure connectivity, unimpeded trade, financial integration, and people-to-people bonds, fostering shared prosperity in the digital economy and presenting four major development opportunities.

First, strong demand for digital infrastructure construction accelerates connectivity among participating countries. Countries along the Belt and Road continue to upgrade and transform communication networks, data

[1] Cited from the Institute of Finance, Chinese Academy of Social Sciences & the National Laboratory of Finance and Development, "Global Digital Economy Development Index Report (TIMG 2024)"
[2] Cited from the National Data Administration, "Digital China Development Report (2024)"

centers, and other infrastructure. For example, Indonesia is upgrading its telecom networks to enhance internet speeds and achieve its "Digital Indonesia Vision 2045"; Vietnam has released its "National ICT Infrastructure Development Plan Towards 2050," initiating projects like international cable systems and multi-purpose national data center clusters. Currently, China has signed Digital Silk Road cooperation memoranda with 17 countries, promoting the construction of cross-border data centers, 5G networks, and other digital infrastructure, and comprehensively advancing projects like the "China-ASEAN Information Harbor" and the "China-Arab States Online Silk Road".

Second, growing demand for cross-border e-commerce services expands international trade cooperation space. As consumer habits shift rapidly online globally, the e-commerce markets in countries and regions along the Belt and Road are developing rapidly. In 2023, Southeast Asia led global retail e-commerce growth at 18.6% [3]. China has now established bilateral e-commerce cooperation mechanisms with 33 countries across five continents [4]. In 2023, the import and export value of cross-border e-commerce between China and these 33 partner countries accounted for 30% of China's total cross-border e-commerce trade, with imports from 23 partner countries growing faster than China's national average.

Third, steadily improving fintech levels promote international trade facilitation. Currently, Southeast Asia, South Asia, and the Middle East are advancing rapidly in digital payments and inclusive finance, promoting innovative applications like mobile payments, digital banking, and cross-border payments. Meanwhile, Central Asia and some African countries are accelerating fintech infrastructure construction to enhance financial inclusion [5]. China is strengthening international financial cooperation. Its digital payment systems are widely used in countries along the Belt and Road: UnionPay card services are available in 131 participating countries, and UnionPay mobile payment functions are operational in 74 participating countries, providing convenient payment methods for international trade [6].

Fourthly, flourishing digital culture promotes people-to-people bonds among participating countries. Utilizing digital collection, storage, and display technologies, the Belt and Road countries are bringing cultural resources beyond geographical and temporal limitations to global audiences. China, Cambodia, Uzbekistan, and others collaborate on digital preservation and exchange of cultural heritage, fostering mutual learning among civilizations. The rise of digital media has expanded cultural communication channels. People from countries along the Belt and Road showcase their national cultures through social platforms and video websites. Platforms such as Facebook, YouTube, and TikTok have gathered a wealth of user-generated content from various countries, such as traditional Turkish dances and ceramic craftsmanship, Egyptian historical sites, and Thai festival celebrations. Chinese online literature, films, television dramas, and games have become important channels for cultural exchange and dissemination. In 2024, the overseas market size of Chinese web literature exceeded 4 billion yuan, covering over 200 countries and regions; overseas sales revenue of China's self-developed online games surpassed 100 yuan billion for the fourth consecutive year; among the top 100 downloaded overseas audiovisual apps, two of the three new entrants were Chinese short drama apps [7].

[3] Cited from Bain & Company, "2023 Southeast Asia Digital Economy Report"
[4] Cited from the Chinese Academy of International Trade and Economic Cooperation (CAITEC), MOFCOM, "Silk Road E-commerce Cooperation
[5] Development Report 2024- Creating a New High for Cooperation through Open Innovation"
[6] Cited from the Institute of International Studies of Fudan University, "Financial Science and Technology Promote the Implementation of the the Belt
[7] and Road Strategy: Taking East and South Asia as an Example"
Cited from the State Council, "Jointly Building the" the Belt and Road ": Major Practice of Building a Community with a Shared Future for Humanity"
Cited from the National Data Administration, "Digital China Development Report (2024)"

II.Connotation and Core Roles of Platform Enterprises

(I)Connotation of Platform Enterprises

Platform enterprises are organizations that build and operate platforms connecting supply and demand sides or multiple parties, based on new-generation information and communication technology, to construct business ecosystems and realize value creation and exchange. By leveraging new-generation information and communication technology, platform enterprises connect people with goods, services, information, entertainment, capital, and computing power, integrating functions such as transactions, social interaction, entertainment, information, financing, and computing [8]. By integrating resources and providing marketplaces with supporting services, they facilitate the coordinated operation of multilateral markets.

(II)Core Roles of Platform Enterprises

Adhering to the principle of extensive consultation, joint contribution, and shared benefits, platform enterprises leverage their multilateral market structure, network effects, data-driven capabilities, and open sharing capacity. By serving as leading builders of digital infrastructure, innovation leaders in technology empowerment, ecosystem integrators for multilateral markets, and bridge builders for digital governance, they become key forces driving the construction of the Digital Silk Road.

As leading builders of digital infrastructure, platform enterprises bridge the technology gap in developing countries by leveraging their advanced technology and resource capabilities. First, they upgrade network transmission and connectivity facilities to achieve global low-latency, high-reliability network coverage. For example, Huawei has co-built over 1,500 networks with global operators, connecting over 3 billion people in more than 170 countries and regions. Second, they advance the R&D and application of cutting-edge technologies like satellite communication and laser communication to solve connectivity challenges in remote areas. For instance, China Telecom's Tiantong-1 satellite system covers China and 17 countries and regions in Southeast Asia; Google's Project Taara uses laser communication to provide high-speed internet access in remote areas of Africa and South Asia. Third, they extensively build computing power infrastructure to strongly support applications like cloud computing and AI. For example, Huawei's supercomputing center in South Africa has supported over 300 tech startups.

As innovation leaders in technology empowerment, platform enterprises provide scalable digital tools and comprehensive digital solutions for the global market, driving efficiency transformation in industrial chains. First, by deconstructing complex technology systems, they encapsulate digital technologies into standardized capabilities and services, popularizing low-code/-no-code platforms to reduce enterprise digitalization costs. For example, China Telecom launched an international connected vehicle management platform covering over 200 regions globally, offering single-point global access and end-to-end service capabilities. Second, they deeply integrate cutting-edge digital technologies with specific industry scenarios to deliver customized solutions, promoting systemic productivity improvements. Haier COSMOPlat's industrial internet model, for instance, has been replicated in over 20 countries, empowering the creation of 11 global "lighthouse factories" and injecting strong momentum into manufacturing transformation.

As ecosystem integrators for multilateral markets, platform enterprises connect cross-border industrial and supply chains, fostering collaborative innovation in global industrial chains. First, they establish hubs connecting global resources to facilitate international trade flows. For example, Amazon aggregates suppliers, logistics, and financial payment resources from over 190 countries and regions, driving global digital trade.

[8] Cited from the State Administration of Market Supervision, "the Guidelines for Classification and Grading of Internet Platforms (Draft for Comments)"

Second, they integrate upstream and downstream resources in industrial chains, uniting multiple forces to promote synergistic industrial development and mutual benefit. For instance, Uber collaborates with governments, automakers in the Middle East, using centralized procurement, intelligent dispatching, and operations to efficiently utilize vehicle resources, promote the intelligent upgrade of the local mobility industry, and drive the development of related sectors like auto manufacturing, logistics, and services.

As bridge builders for digital governance, platform enterprises participate in international rule-making, promoting multi-stakeholder co-governance of the global digital value chain. First, leveraging their technology and practical experience, they actively participate in formulating international rules and standards to guide industry development. For example, leading global operators and equipment vendors jointly formulated the Net5.5G target network construction standard, providing clear guidance for network upgrades in the AI era. Second, they spearhead multi-party dialogues, providing platforms for global digital governance discussions, fostering innovation and collaboration in governance rules. For instance, Alibaba's World Electronic Trade Platform (eWTP) initiative, together with governments from over 30 countries like Malaysia and Belgium, international organizations like the WTO, and global Small and Medium Enterprises (SMEs), has established a long-term dialogue mechanism to regularly discuss issues like digital trade and data flows, promoting the evolution of the global governance system.

III. New Trends in Co-created and Shared Development of Platform Enterprises

As the Digital Silk Road construction deepens, platform enterprises, as core participants, are undergoing profound paradigm shifts in their roles and development models. The previous model dominated by one-way technology transfer, single-market expansion, and purely passive compliance can no longer meet the inherent requirements for high-quality development of the Digital Silk Road or the increasingly complex needs of participating countries. Platform enterprises are accelerating towards a new stage of co-created and shared development. This is not only an inevitable choice for their sustainable and international development but also a key path for them to collaborate with various parties to promote global digital economy prosperity. Currently, platform enterprises are presenting three major trends in collaborative development and shared benefits. First, digital infrastructure shifting from "Technology Transfer" to "Application Empowerment". Second, localization strategy upgrading from "Market Adaptation" to "Value Symbiosis". Third, digital governance participation shifting from "Passive Compliance" to "Standard Shaping." These three trends exhibit distinct "technology-market-institution" co-evolution characteristics, jointly outlining a new vision for Digital Silk Road construction driven by the trinity of technological empowerment, market co-creation, and institutional innovation (see Figure 1 below).

(I) Digital Infrastructure Shifting from "Technology Transfer" to "Application Empowerment"

Digital infrastructure is the foundation of digital economic development. Platform enterprises participation in the Digital Silk Road construction is accelerating the transition of digital infrastructure beyond mere hardware deployment and technology solution export towards an "application empowerment" stage supported by diverse technologies like cloud computing and AI. Specifically, this evolution has progressed from the hardware interconnection phase represented by 4G, 5G, and fiber optic deployment, to providing platform based services such as cloud computing and AI middleware, ultimately unlocking value in real-world industrial applications. This evolution path essentially represents an elevation of the technology value logic, helping accelerate technology diffusion efficiency and enabling the Belt and Road countries to rapidly access digital productivity.

More flexible technology supply: shifting from standardized products to modular capability opening. As market demands evolve, platform enterprises are moving beyond selling standardized hardware, software

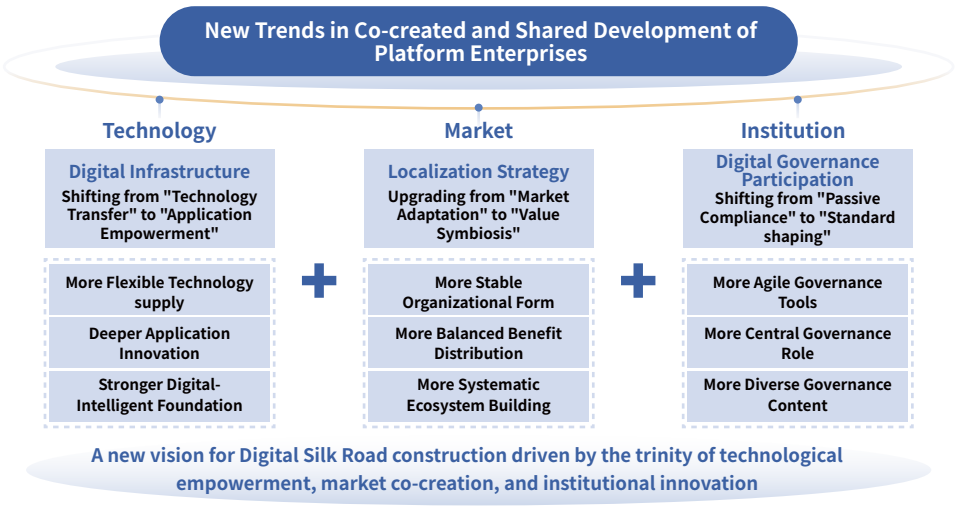

Figure 1 New Trends in Co-created and Shared Development of Platform Enterprises

packages, or turnkey solutions. Instead, they are transforming core technologies into modular capabilities that can be called on-demand and freely combined, using more flexible methods like modular interfaces and PaaS/SaaS services, achieving a fundamental shift towards "open empowerment." For example, Haier's COSMOPlat industrial internet platform adopts a layered modular architecture. The IaaS infrastructure layer provides standardized infrastructure modules such as computing, storage, and networking. The PaaS platform layer opens up core capability modules such as development tools, data platforms, and AI algorithms. The SaaS application layer carries personalized industrial apps and supports rapid combination and configuration. It has now gathered 330 million users, 43,000 enterprises, and 3.9 million ecosystem resources globally, with platform achievements applied in 108 factories worldwide [9].

Deeper application innovation: extending from consumer internet to industrial internet. In the early stages of Digital Silk Road construction, technology applications focused primarily on consumer-side scenarios like mobile payment convenience, e-commerce platform proliferation, and social media adoption. Currently, applications are deeply penetrating core industrial scenarios like agriculture, energy, and logistics, aiming to reshape physical industrial chains with digital technologies. For instance, BEST Inc. has used a digital supply chain to weave a logistics network covering Southeast Asia. It has established smart sorting centers in Vietnam, Malaysia, etc., introduced automated lines and intelligent routing systems, developed a cross-border logistics system coordinated across multiple countries, integrated land, sea, and international trunk transport, achieved connectivity for large-item logistics networks, and provides digital supply chain services to local e-commerce companies via a SaaS platform [10].

Stronger digital-intelligent foundation: assisting developing countries towards integrated construction of cloud+AI+blockchain and other technologies. Currently, some developing countries, relying on Digital Silk Road cooperation, are building and deploying a new generation digital technology foundation intertwined with multiple technologies such as "cloud computing as the base, AI as the driver, blockchain ensuring trusted interaction". This integrated solution enables latecomers to centrally unleash digital technology dividends. For example, against the backdrop of relatively lagging traditional communication and IT infrastructure in Ethiopia, Ethio Telecom and Huawei jointly launched the EM2.0 (Emerging Market 2.0) model. Differing from the traditional network-connectivity-focused model, EM2.0 emphasizes a cloud foundation, actively embracing the future and a "network-cloud-intelligence transformation". By building high-quality digital infrastructure, establishing a digital cloud platform base, deploying digital operation and maintenance platforms, and enabling new digital services, it accelerates multi-cloud integration and cloud-network synergy, effectively enhancing the country's overall digital level. Building on this, the two jointly developed the mobile wallet platform TeleBirr, optimizing mobile finance and Super-App capabilities, achieving a full-stack digital business model and injecting strong momentum into local digital economic development [11].

(II)Localization Strategy Upgrading from "Market Adaptation" to "Value Symbiosis"

As Digital Silk Road construction deepens, platform enterprises are accelerating the building of mutually beneficial and symbiotic partnerships with host countries. Their localization strategies are undergoing a profound transformation, shifting from an early phase focused on market access and compliance management—referred to as the "market adaptation" stage—to a new phase characterized by deep integration into local markets and the co-creation of prosperous and

[9] Cited from "Science and Technology Progress and Countermeasures", January 2024, "How Does Modularization Empower Enterprise Smart Manufacturing Upgrades? An Exploratory Case Study"
[10] Cited from China Daily Website, April 2025, "BaiShi Group Utilizes Digitalized Supply Chain to Support Bilateral Trade Development Between China and Southeast Asia"
[11] Cited from Huawei Technologies, June 2024, "EM 2.0 Model: The Path to Digital Transformation for African Operators"

open ecosystems, known as the "value symbiosis" stage. This transformation is manifested through a stepwise evolutionary path: from the initial embedding of local team hiring, to the deep integration of joint venture operations, and finally to the ecological synergy of digital industrial clusters. The core logic behind this shift is a transition from one-way resource output to two-way capability integration, ultimately forming a close community between platform enterprises and host countries to jointly cultivate and reshape the regional digital economic ecosystem.

More stable organizational form: shifting from local operations teams to joint ventures. The upgrade in localization strategy is first reflected in continuous organizational restructuring and functional expansion, directly indicating the role positioning of platform enterprises in the host country and the depth of their integration with the local economy and society. Initially, platforms often hire large numbers of local staff and establish localized operations teams to quickly understand local culture, regulations, and user habits, achieving cultural adaptation and initial market penetration. As market understanding deepens and business scale expands, establishing joint ventures by introducing local partners to share resources and risks enhances the platform's legitimacy and acceptance in local society. For example, in December 2023, TikTok and Indonesia's GoTo Group reached a strategic e-commerce cooperation. TikTok's Indonesian e-commerce business will merge with GoTo's e-commerce platform Tokopedia, with TikTok holding a controlling stake in the merged entity [12] . The parties transformed potential policy risks into opportunities for joint development, accelerating Indonesia's e-commerce and digital economy growth.

More balanced benefit distribution: shifting from franchise sharing to data value sharing. Optimizing benefit distribution mechanisms can drive platform enterprises and host countries to build more sustainable and equitable cooperative relationships. Early on, platforms often adopted short-term revenue models like franchise sharing, essentially a "toll" based on platform traffic advantages, enabling rapid expansion through agents or commissions. Currently, platforms are accelerating the exploration of sharing mechanisms based on data as a factor and linked to actual benefits. Benefit distribution now considers not only traditional inputs like capital and technology but also the economic value of data as a key production factor and the value-added benefits generated by data-driven businesses. For instance, in May 2024, Huawei Cloud launched its AI-native database GaussDB and Pioneer Program in Thailand, providing AI-driven data processing solutions for finance, government, internet, and other sectors to maximize the value of data elements. The Pioneer Program offers differentiated benefits for different stakeholders [13] , sharing the actual benefits of data value creation with customers and partners, accelerating the formation of a sustainable cooperation mechanism linking returns to data value.

More systematic ecosystem building: shifting from single-point breakthroughs to full-linkage integration. Constrained by resources, insufficient local market understanding, and risk control, platform enterprises often choose their most competitive core business or key link as the market entry point during early overseas expansion to quickly validate the market and accumulate users. As localization deepens and market competition evolves, leading platforms are actively integrating upstream and downstream resources in the industrial chain to build a localized service ecosystem with multi-link synergy. For example, Cainiao has established multiple overseas warehouses in Southeast Asia, including the eWTP Hub in Kuala Lumpur, to achieve localized warehousing. Building on this, it collaborates with local logistics firms to build "last-mile" delivery networks. In Indonesia, integrating local motorcycle couriers and urban distribution networks reduced average delivery times by 2 days [14] . Simultaneously, it has integrated the Alipay+ payment system, connecting with electronic wallets such as the Philippines' GCash, Thailand's

[12] Cited from Xinhuanet,, December 2023,"Controlling Local Platforms, TikTok E-commerce Returns to Indonesia for Double Twelve"
[13] Cited from Huawei Cloud's official website, "Huawei Cloud Enables Thailand's Digital Transformation with AI-Native Database GaussDB and Pioneer Program"
[14] Cited from Cainiao's official website, "Cainiao's Role in Cross-border 'Last Mile' Delivery"

TrueMoney, and Malaysia's Touch'n Go eWallet across different markets [15] . Cainiao forms a full-linkage closed loop of "overseas warehousing + local delivery + mobile payment", This provides cross-border e-commerce sellers and overseas consumers with a one-stop service covering product pickup, international trunk transportation, overseas warehouse management, last-mile delivery, and convenient payment options.

(III)Digital Governance Participation Shifting from "Passive Compliance" to "Standard Shaping"

Digital governance is a crucial institutional safeguard for Digital Silk Road construction, impacting not only data security and market order but also profoundly influencing technological innovation, industrial upgrading, and the reshaping of international trade rules. After years of technological accumulation, model innovation, and international exploration, the role and strategic choices of platform enterprises in the field of digital governance have shifted from a "passive compliance" approach characterized by meeting external regulatory requirements and mitigating operational risks to a "standard-setting" approach characterized by actively participating in rule-making and proactively proposing governance solutions. In this process, the depth and proactivity of platform enterprises' governance have undergone a qualitative leap, gradually positioning them as actual contributors to rule evolution and even rule shapers.

More agile governance tools: shifting from post-hoc auditing to embedded governance. When dealing with international rules during early overseas expansion, platform enterprises primarily relied on traditional methods like post-hoc reviews, periodic audits, and emergency responses to ensure compliance, resulting in high governance costs and relatively slow reactions. With the development and application of emerging technologies like AI, big data, privacy enhancing technologies, and smart contract, digital governance tools are accelerating towards intelligent models featuring pre-emptive prevention, real-time monitoring, and automated embedding. For instance, Ant Group launched Trusple, a digital international trade and financial service platform built on AntChain technology. Trusple connects buyers, sellers, their banks, and key ecosystem players in the trade chain, translating common international trade rules, key contract terms, and critical compliance requirements into smart contract. This achieves high transparency in transaction processes, trustworthy and efficient flow of key documents, and automation of certain compliance review processes [16] .

More central governance role: shifting from learning and adapting to rules to actively leading standards. In the early stages of overseas expansion, platforms joined international standards organizations or participated in multilateral government/industry dialogues to stay informed about global rule dynamics and ensure overseas business compliance. They were often regulation adopters with limited global influence. Currently, enterprises actively seek to become significant contributors to global digital governance rules. They support technical experts taking core roles in national and key standards bodies, explore initiating and leading industry alliances or standards promotion organizations, participate more deeply in the core stages of international standard-setting, and even become shapers and leaders of standards in key areas. For example, SenseTime continuously promotes global AI governance, participates in over 80 important domestic and international standards organizations, holds multiple expert seats in key ISO standards, represents Chinese AI enterprises in international standard-setting, and has led the drafting of over 200 international, national, and other standards covering foundational technologies like AI, facial recognition, computer vision, and application fields like security and smart cities [17] .

More diverse governance content: evolving from data

[15] Cited from Cainiao's official website, "New Cross-border Payment Ecosystem: Experience Upgrade Brought by Cainiao's Integration with Alipay International Edition"
[16] Cited from Trusple's official website
[17] Cited from Sina Finance, March 2023, "Two Sessions Special Edition: SenseTime Technology Helps Build a Digital China and Empowers High-Quality Economic and Social Development"

security to more complex issues like algorithm ethics and social responsibility. During the initial overseas phase, data security was the core governance concern, primarily addressing basic compliance issues like data localization, cross-border transfer security, and personal information protection. The innovation and application of new-generation digital technologies compel platform enterprises to extend governance content to deeper areas like algorithm explainability, ethical framework construction, and social impact assessment. For example, in November 2023, 11 entities including Baidu and Tencent initiated the establishment of the IEEE Large Model Standards Working Group, which will develop international standards for large model technical specifications, evaluation methods, security and trustworthiness, reliable decision-making, etc., promoting algorithmic fairness design [18] . WeChat and TikTok continuously strengthen precise governance on child protection, online fraud, and content involving race, religion, and royalty, ensuring social media content passes ethical compliance reviews. They have successfully obtained operating licenses from Malaysian communications regulators [19] .

[18] Cited from IT Home, November 2023, "Launch of International Standards for Large Models, Huawei Cloud, Baidu, Tencent, Ant Group, and Others Initiate the Establishment of the IEEE Large Model Standards Working Group"
[19] Cited from World Internet Conference, January 2025, "WeChat and TikTok Obtain Operating Licenses in Malaysia"

IV. New Models of Co-created and Shared Development of Platform Enterprises

With the iteration of technology and the diversification of user demands, platform enterprises are breaking boundaries, building more resilient and dynamic new development models through resource integration and value co-creation. Against this backdrop, this chapter focuses on four types of enterprises—cloud computing platforms, e-commerce platforms, fintech platforms, and digital entertainment platforms—to analyze their new development models.

(I) Cloud Computing Platform Enterprises: Cloud Service Models Ensuring Digital Sovereignty

As the digital economy's share of the global economy increases, governments and public sectors worldwide are placing greater emphasis on digital sovereignty. The adoption of the XaaS (Everything-as-a-Service) model in cloud computing—where software and hardware are built and operated by cloud providers and partners, with customers renting resources on-demand—has transformed the traditional approach of self-building or purchasing software and hardware. This shift has somewhat reduced customers' control over their digital activities and environment. Consequently, cloud service models that ensuring digital sovereignty are attracting widespread attention from governments and enterprises globally.For example, the European Union has successively introduced policy documents and legal frameworks like the "General Data Protection Regulation (GDPR)" and the "Draft EU Cybersecurity Certification Scheme for Cloud Services" to strengthen digital sovereignty. Saudi Arabia has enacted policies such as the "Cloud Computing Regulatory Framework and the Personal Data Protection Law", which stipulate data sovereignty requirements for cloud service providers.

Cloud service models that ensure digital sovereignty employ innovative hybrid sovereignty architectures. In this way, it guarantees the security and trustworthiness of digital infrastructure, accelerates the digital transformation and innovation capabilities of local enterprises, and also promotes fairer and more inclusive global data governance and cross-border digital trade rules. This model has three key characteristics:

First, hybrid sovereignty architecture. The core of this architecture is "localization of data and control, globalization of capabilities and ecosystem". Localized data centers are built cross-border in participating countries to host core business data and sensitive workloads. This enables participating countries to seamlessly connect to

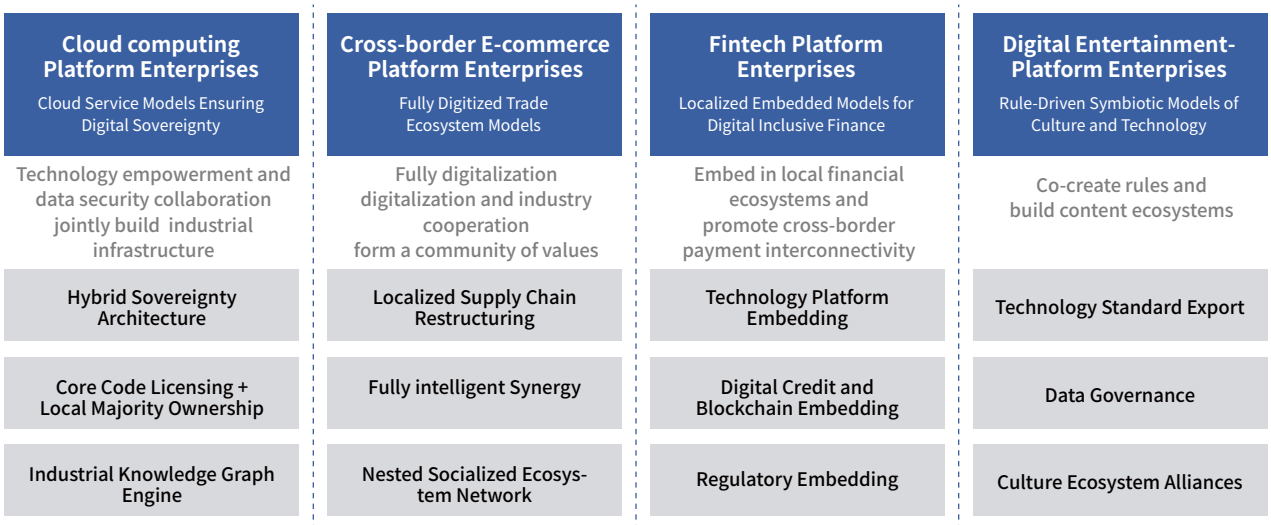

Figure 2 View of Co-created and Shared Development Models for Platform Enterprises

the cloud provider's global backbone network, advanced PaaS/SaaS services, and vast ecosystem resources. Through this integration, they can benefit from globally leading cloud technology advantages while ensuring data sovereignty and compliance through local infrastructure control, data physical residency, and strict access governance policies. For example, Microsoft Sovereign Cloud, an industry cloud for global governments and public sectors, leverages Azure data centers covering more than 60 regions and 36 countries. Microsoft allows customers to specify the deployment country or region for most services to meet industry, national, or global security, privacy, and compliance requirements. For customers in locations without a data center but with data residency requirements, Microsoft offers the Azure Stack hybrid cloud appliance as a supplementary solution.

Second, core code licensing + local majority ownership. The cloud service provider licenses core cloud computing technology code to local partners, who hold a controlling stake, ensuring data sovereignty and operational control remain local. This model has high technical barriers and requires significant investments, but achieves the greatest degree of local technology sovereignty and industrial ecosystem dominance. In sectors with extremely high data security demands (e.g., defense, government), it safeguards data sovereignty from external interference and promotes technological upgrades of the local cloud service industry. For instance, in Saudi Arabia, Alibaba Cloud, in collaboration with partners including Saudi Telecom Company (STC),established the Saudi Cloud Computing Company in Riyadh, Saudi Arabia. Alibaba Cloud licensed core cloud technology, while STC holds a 55% stake and leads operations, embodying the combination of technology export and sovereignty retention.

Third, industrial knowledge graph engine. To meet deep digitalization needs of specific industries (e.g., manufacturing, agriculture, healthcare), vertical industry clouds are built with an industrial knowledge graph as the core engine. This transforms industry-specific expertise and experience into structured data assets, upon which highly industry-adapted pre-trained models are trained, providing more precise and intelligent services, and forming the industry's "digital brain". For example, Huawei Cloud builds an industrial knowledge graph engine via its industrial intelligence platform iDME.X, combining industrial-enhanced knowledge graphs with general large models to form an industrial multi-agent system. In smart factory scenarios, it supports data ingestion from edge devices, drives process optimization, and enables autonomous decision-making and execution in complex industrial environments.

(II)Cross-border E-commerce Platform Enterprises: Fully Digitized Trade Ecosystem Models

Fully digitized trade ecosystem models use data as the nexus to break down traditional fragmented processes through real-time sharing and intelligent decision-making. By optimizing resource allocation and enabling value co-creation, it builds a new digital trade ecosystem characterized by agile responsiveness, mutual trust, and shared success. Its core breakthrough lies in powerful ecosystem synergy value. First, it forms a multilateral real-time interaction network. This platform dynamically captures end-consumer trends and reversely drives agile responses in design, production, and supply chains. Consequently,production capacity is flexibly adjusted to minimize inventory overstock and opportunity costs. Second, it lowers ecosystem partners' access barriers. Diverse participants (e.g., content creators, local service providers) can be integrated at minimal cost, develop new services based on shared data, and continuously incubate novel business models and formats.

Fully digitized trade ecosystem models have three key features:

First, restructuring localized supply chain. Leveraging big data to precisely understand regional consumption preferences and local production capacity, flexible manufacturing centers, forward warehouses, and regional fulfillment hubs are built within target markets. Local high-quality supply chain resources are deeply integrated. Simultaneously, the platform's intelligent scheduling hub dynamically optimizes the global supply chain layout, selecting optimal sourcing locations and logistics routes based on real-time cost, timeliness, and policies, achieving an efficient combination of "global resources + local response". For example, Amazon has a massive and mature logistics system FBA (Fulfillment by Amazon), which pre-stocks goods in warehouses worldwide. After a consumer places an order, Amazon is responsible for warehousing, picking, packing, delivery, and some after-sales services. The core fulfillment chain is: Amazon Global Logistics (AGL) → Amazon Warehousing & Distribution (AWD) → FBA Last Mile Delivery.

Second, fully intelligent synergy. Utilizing technologies like blockchain, IoT, cloud computing, and AI to integrate data across the entire chain—from factory production, warehousing logistics, cross-border customs clearance, international transport, local delivery, to receipt and after-sales service. This enables real-time visibility of status at all stages, information sharing, and intelligent scheduling. Through algorithms optimize routes, predict timelines, and manage risks, it significantly enhances efficiency and certainty. For instance, Cainiao International provides cross-border merchants with digital services covering "first mile - trunk line - customs clearance - overseas warehouse - last mile". It uses IoT devices to track global cargo location and status, blockchain to ensure immutable and traceable of key node information , and AI to predict customs clearance times, optimize warehouse location selection, and plan delivery routes. Merchants and consumers can track, end-to-end parcel information in real-time on the platform.

Third, nested socialized ecosystem network. Deeply integrating social networks and various service providers within the platform ecosystem (payment, finance, logistics, marketing, SaaS tools, etc.), attracting content creators, developers, and industrial cluster resources. By implementing open APIs, standardized interfaces, resource-sharing platforms, and incentive mechanisms, this framework promotes value creation and exchange among different roles within the ecosystem based on the platform infrastructure. This engenders self-reinforcing network effects and builds an open, multilateral, and reciprocal super ecosystem network. For example, TikTok Shop deeply integrates short-video and live-streaming with e-commerce transactions, creating a closed-loop consumer experience of "discovery - inspiration - interaction - purchase - sharing". Content creators earn revenue, merchants gain traffic and sales, all parties within the ecosystem are interdependent and mutually beneficial, forming powerful network effects that drive rapid platform growth.

(III)Fintech Platform Enterprises: Localized Embedded Models for Digital Inclusive Finance

Digital inclusive finance represents both the digital stage of inclusive finance development and a key engine for high-quality development of the real economy. Since 2021, major countries around the world have released representative policies or initiated practices in digital inclusive finance. For instance, the European Central Bank established a Digital Euro Innovation Hub, testing the payment functions and application scenarios of a digital euro to accelerate its development, aiming to promote European economic security and enhance the international status of the euro. The Central Bank of Indonesia has formulated the "Payment System Blueprint 2024-2045", planning to integrate tens of millions of unbanked individuals and SMEs into the digital economy by promoting digital payment tools.

The key paths for platform enterprises to promote digital inclusive finance are cross-border payment interconnection and localized product-service ecosystem embedding. Cross-border payment interconnection breaks geographical barriers, reduces transaction costs, and improves settlement efficiency through technical integration and standards unification, enabling SMEs and individuals to participate in global financial activities. The localized product-service ecosystem tailors suitable financial products and services based on the economic, cultural, and financial needs of different regions—ranging from consumer credit to agricultural finance—covering more long-tail groups. These two paths complement each other: the former builds the digital financial infrastructure network, while the latter deepens market segmentation. Together, they eliminate financial service blind spots, precisely channel financial resources downward, and enable more entities to share digital economy dividends. Based on this, the localized embedding of digital inclusive finance can not only activate regional financial markets but also practically solving problems such as policy differences, demand mismatches, and regulatory difficulties in cross-border services, empowering global financial inclusion and sustainable development.

The localized embedded model for digital inclusive finance integrates technology, services, and regulation into the local financial ecosystem, improving the cross-border financial service system. It has three key features:

First, technology platform embedding facilitates cross-border payment interoperability. Fintech platform enterprises provide the technology platform, banks contribute licenses and liquidity, and scenario parties contribute traffic—collaboratively building the "digital payment" experience. For example, Singapore's Shopee Pay partnered with Alipay to support Chinese tourists and merchants using Alipay for goods and services in Southeast Asia; the Indian government launched the "Unified Payments Interface (UPI)", enabling users to conduct seamless transactions and instant settlements between different banks and payment platforms.

Second, digital credit and blockchain embedding benefit SMEs financial services. Fintech platform enterprises adopt a "mobile payment + digital credit" model to help SMEs obtain loans without collateral and apply blockchain to cross-border trade finance, enhancing supply chain transparency and financial security. For example, after obtaining a financial lending institution license in Indonesia, FinVolution launched a "RMB 100 Million Interest-Free Loan" project, distributing coupons and benefits to approximately 1.6 million local micro and small users; China Construction Bank launched its Cross-Border Wing Payment product, providing blockchain-driven supply chain financing services for the Belt and Road countries to achieve automated, secure, and convenient financing processes.

Third, regulatory embedding ensures cross-border transaction security. Regulatory authorities and financial institutions worldwide collaborate to improve the digital financial regulatory system, ensuring products gain local regulatory approval, and promoting mutual recognition of customer identities across different systems to reduce risks like financial fraud and money laundering. For example, Saudi Arabia's Financial Market Authority (CMA) launched a regulatory sandbox program for international fintech platform enterprises testing new products and services to ensure compliance with local regulatory conditions; the UAE Financial Intelligence Unit (FIU) and China's Anti-Money Laundering Monitoring and Analysis Center jointly track large cross-border payments, perform compliance reviews, and collaboratively improve cross-border financial governance capabilities.

(IV)Digital Entertainment Platform Enterprises: Rule-Driven Symbiotic Models of Culture and Technology

In recent years, intensifying competition in the global digital cultural market, coupled with increasingly stringent regulatory scrutiny of foreign-funded enterprises in some countries and regions, has posed multiple challenges for digital entertainment platform enterprises expanding overseas. Challenges include high content localization costs due to cultural identity barriers, insufficient data interoperability across platforms, and lagging cross-border copyright protection. Concurrently, as the AI thrives globally, digital technologies have endowed traditional culture with new value, playing an increasingly prominent role in transnational cultural communication. Against this backdrop, a new model of global exchange and cooperation has emerged for digital entertainment platform enterprises—rule-driven symbiotic models of culture and technology.

Distinct from the single authorization of traditional copyright trade, the rule-driven symbiotic model of culture and technology resolves transnational legal and cultural conflicts by co-constructing and co-governing rules, empowers the entire process of content production, dissemination, and monetization through technology. This model not only meets diverse cultural demands, but also provides institutional guarantees for cultural circulation, and promotes mutual learning among global civilizations.

Countries have undertaken various practices to regulate cultural exchange mechanisms. For example, the Arab Cultural and Arts Network partnered with global institutions like Google Arts & Culture to build a digital platform, establishing mechanisms for online exhibitions, training, and resource sharing to promote the international dissemination and sharing of Arab culture. China has co-hosted "International Day for Dialogue among Civilizations" events globally with UN agencies, actively implementing the Global Civilization Initiative, by systematic civilizational exchanging and learning as a bond to foster the deep development of multilateralism. The rule-driven symbiotic model of culture and technology promotes the collaborative development of the global cultural industry by improving technology, data, and collaboration rules. It has three key features:

First, guiding content production direction through technology standard export. By opening core engine interfaces and technology platforms,digital entertainment platform enterprises transform patents into industry common language,thereby forming new templates for content production . For example, Epic Games has transformed the technical methodology used to create Fortnite into a platform product—Unreal Engine , which supports other game developers to build free-of-charge based on the platform, minimizing technical barriers in independent R&D. And it charges a 5% royalty on a game's quarterly revenue once it's total revenue exceeds $1 million. This model helps Epic Games maintain stable cash flow while further consolidating its dominance in global game technology standards.

Second, building new norms for transnational content dissemination through data governance. Data governance frameworks resolve the conflict between data sovereignty and circulation under the premise of protecting user privacy through unified data standards, security protocols, and AI-driven mechanisms, establishing a transnational circulation framework for cultural digital assets. For example, YouTube specially labels content related to important topics (e.g., elections, conflict, violence, public health issues, or prominent figures), while strictly requiring creators to indicate AI-generated content and supporting users to request the removal of AI-synthesized content mimicking their face or voice.

Third, strengthening cultural integration and copyright protection through culture ecosystem alliances. Culture ecosystem alliances centered on cultural exchange strengthen data sharing and copyright protection via collaborative mechanisms among multiple content

entities, promoting the joint enhancement of cultural value. For instance, Alibaba Pictures has established the IP trading and innovation platform Aliyu, building bridges for nearly 100 well-known domestic and international cultural IPs like the Louvre, Pokémon, and Gundam to the Chinese market. It provides technical support in product design, copyright supervision, and sales channels, fully integrating new retail with entertainment, to help cultural partners achieve dual enhancement of commercial value and brand influence in China.

V.Future Outlook and Action Proposals

As the global digital landscape undergoes profound transformation, platform enterprises are shifting from passive participants in globalization to proactive co-architects of international digital rules. They are emerging as strategic anchors in shaping the ecosystem of the Digital Silk Road. Yet, their path to global expansion remains challenging. First, the global digital governance architecture is highly fragmented. Regulatory divergence, lack of mutual recognition, and escalating compliance burdens are constraining data flows and undermining platform scalability. Second, structural imbalances persist, as weak infrastructure, limited talent, and misaligned applications hinder integration into local ecosystems, reducing the impact of inclusive digital solutions. Third, rising geopolitical tensions and intensifying digital competition, manifested through security reviews, technological barriers, and market exclusion, create heightened policy risks and strategic uncertainty. In this evolving landscape, it is imperative to build consensus out of fragmentation and forge coordination amid complexity. Platform enterprises must shift from fragmented deployments to systemic co-construction, and from passive rule-following to proactive rule-making. By connecting development through capabilities and rebuilding trust through reliability, they can collectively expand the boundaries of global digital cooperation.

(I)Future Outlook

First, platform enterprises are accelerating their transformation into the organizational core of global digital service systems. The future Digital Silk Road will no longer center on the export of isolated products or technologies, but rather evolve into a globally oriented, platform-based system that integrates networks, data, algorithms, services, and governance rules. Platform enterprises will serve not only as enablers of technological deployment, but more significantly, as forward-positioned drivers of national digital capability, embedded in the coordinated frameworks of diplomacy, trade, and industrial policy. This evolution requires governments to build cross-departmental synergy across key areas such as policy access, financial support, rule-making participation, and talent mobility. A fully integrated advancement mechanism, driven by collaboration among platforms, public policy, and capital, will be essential to empower platform enterprises to consolidate their local presence and extend their influence across regions through systemic capabilities.

Second, platform enterprises are emerging as key drivers in re-balancing global digital development. Countries across the Global South are experiencing a structural shift in their digital aspirations—from seeking mere access to digital technologies to demanding active participation in value creation. This evolving demand reflects a deeper pursuit of digital empowerment and inclusion. China's Global Development Initiative emphasizes that "development is the master key to solving all problems", and the Digital Silk Road offers a practical pathway to realizing this vision. Platform enterprises possess systemic strengths in deploying localized computing power, designing lightweight digital products, and cultivating open-source ecosystems. These capabilities enable platform enterprises to support a new development model centered on inclusive capacity-building, shifting from one-way resource provision to joint capability creation. This shift is accelerating the institutionalization of the "digital community of shared future" and laying the foundation for long-term, sustainable cooperation.

Third, platform enterprises are becoming central forces in the global shift toward intelligent operations. AI is reshaping the foundations of digital business worldwide, accelerating the transformation of platform enterprises from labor-intensive to intelligence-driven models. Real-time multilingual translation is breaking down barriers to cross-cultural communication. AIGC is creating closed-loop, high-efficiency, and low-cost content ecosystems. Data-driven algorithms are enabling hyper-personalized marketing and real-time

trend forecasting. Together, these capabilities are forming a fully intelligent, end-to-end model of cross-border commercial operations. From developed to emerging markets, AI is becoming the decisive factor in global platform competitiveness. Those enterprises that succeed in building localized intelligent engines, algorithm-driven content systems, and responsive service capabilities will be well-positioned to lead the next wave of global digital competition.

Fourth, platform enterprises are shaping a new global digital governance architecture through open collaboration. As cross-border data flows, algorithmic accountability, and platform governance become central to international digital agendas, global digital governance is entering a new phase—moving from fragmented, unilateral standards toward consensus-based rule-making. Platform enterprises, as the key actors implementing these rules, are transitioning from passive rule-takers to active contributors to institutional design. Through open collaboration, they are engaging more deeply in shaping global governance structures. Emerging multilateral mechanisms, such as the Digital Economy Partnership Agreement (DEPA), are playing a growing role in this transformation. Looking ahead, a coordinated model involving government leadership, enterprise participation, and think tank support will be essential to accelerate global alignment on key issues including data governance, platform accountability, digital taxation, and AI ethics. This approach will contribute to an open, inclusive, and trusted digital governance system, injecting greater certainty and stability into the global digital order.

(II)Action Proposals

1.Government Level

Promote the construction of cross-border rule convergence and mutual recognition mechanisms. Focus on key issues like data flows, algorithmic governance, and digital taxation to build an open and trustworthy global digital rule framework. Strengthen the coordination and linkage of mechanisms like the Digital Economy Partnership Agreement (DEPA) and the APEC Cross-Border Privacy Rules (CBPR) system, promoting multilateral mutual recognition and institutional openness. Establish Digital Cooperation Innovation Pilot Zones. Set up digital rule sandbox pilots, conduct regulatory sandbox cooperation in areas like cross-border data flows and fintech, test innovative policies in controlled environments, and form "replicable and scalable" digital business environments supporting diverse exploration by platform enterprises. Simultaneously, vigorously strengthen digital governance capacity building. A public support system for platform enterprises' global operations will be established, covering core dimensions like legal compliance, cybersecurity, AI ethics, and consumer protection, ensuring effective governance and flexible response in the rapidly evolving digital domain.

2.Enterprise Level

Guided by the principle of extensive consultation, joint contribution, and shared benefits, platform enterprises should explore new models for global digital engagement. By establishing joint ventures and local partnership programs, they can co-develop digital infrastructure and ecosystems with host-country enterprises, enabling shared benefits and balanced risk allocation. Enterprises may also consider adopting a "dual-engine" model that integrates super platforms with super applications, creating regionally embedded ecosystems that link digital content, payment systems, and logistics services. Open-source and open-access approaches offer opportunities to support developing countries in building secure and autonomous digital systems—through investments in localized computing infrastructure, open API environments, and AI toolchains. Modular design and lightweight deployment can further enhance accessibility and resilience in underserved and remote areas. In addition, enterprises are encouraged to embrace the principles of green globalization by embed-

ding environmental and social responsibility into their overseas operations. Prioritizing renewable energy, constructing green data centers, and exporting energy-efficient technologies can help build low-carbon digital supply chains, positioning the Digital Silk Road as a global model for sustainable digital cooperation.

3.International Organizations and Think Tanks

International organizations and think tanks are encouraged to take the lead in developing a unified digital economy assessment framework. Drawing on methodologies such as the Global Internet Development Index, this framework should provide objective metrics for evaluating countries' levels of digitalization and the effectiveness of international cooperation, thereby supporting evidence-based policy-making. There is also a need to establish a regular capacity-building mechanism. Leveraging multilateral platforms such as the United Nations and the International Telecommunication Union (ITU), cross-regional expert networks can offer digital skills training, compliance guidance, and governance advisory services to developing countries, helping to enhance local digital capabilities in a sustained and scalable manner. Furthermore, efforts should also be made to strengthen institutional coordination platforms, aligning the Belt and Road Initiative with multilateral digital agendas such as those of the G20 and APEC. Joint research among think tanks should be promoted to overcome cooperation barriers and build an open, inclusive, and highly interconnected global digital cooperation network to inject lasting momentum into the evolution of a next-generation digital economy governance framework.


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