Artificial Intelligence "Law(s)" in China: Retrospect and Prospect

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Abstract

This paper examines China's evolving AI regulation, focusing on the interplay between fragmented laws, technical standards, and sectoral governance frameworks. Case studies on autonomous driving, financial AI, and generative AI demonstrate how adaptive regulatory models balance innovation with risk management via pilot projects, stringent data protection, technical evaluation, and iterative policy evolution. These models transition from localized pilots to national standards, managing risks through data governance and public safety measures. Analyzing legislative proposals like the Model Artificial Intelligence Law (MAIL) and the Artificial Intelligence Law of P.R. China (Scholarly Draft Proposal), this paper contrasts MAIL's centralized, precautionary framework with the Scholarly Draft's flexible, tiered system that promotes innovation through differentiated risk management. This reflects the tension between central regulatory control and sector-specific governance in aligning rapid technological advancement with coherent legislative oversight. The paper argues that a phased legislative strategy emphasizing flexibility, cross-sectoral consistency, and proactive engagement with emerging technologies is essential for China to sustain global competitiveness while ensuring ethical and safe AI development. By integrating local piloting, sectoral adaptation, and incremental national standardization, it advocates for balancing regulatory oversight with technological innovation. Ultimately, the findings reflect China's efforts to craft a resilient legal framework that mitigates AI risks while fostering sustained and responsible innovation and iterating its industrial policies.

Keywords

AI Regulation; AI Standardization; AI Classification; Regulatory Experimentation; Phased Legislative Strategy

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1. Introduction

In the intensifying global competition for AI governance, China's AI legislation is gaining increasing attention. Several of its regulatory frameworks are regarded as cutting-edge,[1] comparable to the European Union's Artificial Intelligence Act (EU AI Act), which has already exerted considerable influence. Observers have noted that China's approach to AI regulation "will likely remain broad and vague."[2] Consequently, the challenge in analyzing China's AI legislation lies in identifying and explicating the specific laws that effectively govern AI stakeholders and shape the technology within the country. Additionally, as China's central legislative and administrative bodies continue to outline their intentions to regulate AI, there is a pressing need for a forward-looking analysis of these legislative proposals, which are poised to be key contenders in the global race for AI governance.

Meanwhile, a precise definition of AI is necessary at the outset of this paper. In light of the current landscape of Chinese law and the prevailing scholarship and literature—particularly the two expert/scholarly proposals on China's AI regulation discussed herein—the OECD's definition of AI,[3] which has been adopted with slight modifications by the EU AI Act, has garnered substantial acceptance. Accordingly, this paper will employ a definition that closely mirrors Article 3(1) of the EU AI Act: AI refers to an automated system that operates with a certain degree of autonomy, designed to serve specific or general purposes, and capable of influencing physical or virtual environments through predictions, recommendations, or decision-making processes.[4] Such systems typically function through the integration of data, models (algorithms), and AI-embedded end devices.[5]

2. (In-)Direct AI Legislation and Regulation: An Overarching Retrospect

China's approach to AI regulation can be understood within the broader context of its legal hierarchy, which consists of four tiers. These tiers, in descending order of authority, are: **National People's Congress-level laws (法律)**, **administrative regulations (行政法规)**, **departmental and local regulations (部门规章、地方性法规)**, and **normative**

[1] Matt Sheehan, 'China's AI Regulations and How They Get Made' (Carnegie Endowment for International Peace, 10 July 2023) https://carnegieendowment.org/research/2023/07/chinas-ai-regulations-and-how-they-get-made?lang=en&center=global accessed 25 November 2024.
[2] Angela Zhang Huyue, *High Wire: How China Regulates Big Tech and Governs Its Economy* (Oxford University Press, 2024) 289–291.
[3] Stuart Russell, Karine Perset, and Marko Grobelnik, 'Updates to the OECD's Definition of an AI System Explained' (OECD Artificial Intelligence Policy Observatory, 29 November 2023) https://oecd.ai/en/wonk/ai-system-definition-update accessed 25 November 2024.
[4] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act) [2024] OJ L168/1.
[5] ibid.

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instruments (规范性文件). While **technical standards (标准)** under Chinese law function similarly to harmonized standards under the EU AI Act, with which conformity implicates presumption of compliance, they hold significant practical importance. A comprehensive understanding of China's AI regulation requires considering laws applicable across all these levels.

2.1 General Laws (National People's Congress-Level)

Currently, **China does not have a dedicated, comprehensive AI law**. However, this does not imply that legislative developments are not underway, nor that there are no other laws impacting AI. Future legislation on AI in China will be discussed in the end. In the meantime, existing laws can be classified into two primary categories:

1. **General and Fundamental Laws**: These include broad legal frameworks such as criminal law and civil law. For instance, legislators, policymakers and researchers are particularly concerned about cases where AI is used for fraudulent purposes, which could result in criminal liability.[6]
2. **Laws in Special Areas Addressing AI**: In recent years, adding AI-specific provisions has been a notable trend in the enactment and revision of various laws. The scope of these laws is extensive and can be compared to the EU AI Act's Annex III. For instance, **Finance Law Proposal**,[7] **Road Traffic Law Amendment Proposal**,[8] **Ecology and Environment Code Proposal**,[9] and **Degrees Law Amendment Proposal,**[10] all contain AI-related legal issues. For example, the Degrees Act considers whether using AI to assist or fully write a dissertation violates academic integrity.[11]

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[6] Gengshuo Hu and Man Liu, '全国人大法工委答南都：为 AI 换脸诈骗提供技术支持同样追责 [The Standing Committee of the National People's Congress Responds to Nandu: Those Providing Technical Support for AI Face-Swapping Fraud Will Also Be Held Accountable]' (2023) https://m.mp.oeeee.com/a/BAAFRD000020230625812274.html accessed 22 November 2024.

[7] Yanling Qin, '金融法制定提上日程 完备体系确保监管全覆盖 [Financial Law Legislation on the Agenda: A Complete System Ensures Comprehensive Oversight]' (2024) https://www.stcn.com/article/detail/1269629.html accessed 25 November 2024.

[8] Chenxi Zhao, '道交法修订建议稿首次明确自动驾驶汽车上路合法性相关内容 自动驾驶与人工混合驾驶责任划分仍需细化 [Draft Amendments to the Road Traffic Law Clearly Address the Legality of Autonomous Vehicles on Roads for the First Time: Further Refinement Needed for Liability Allocation Between Autonomous and Manual Driving]' (ST Daily, 14 April 2021) https://www.stdaily.com/index/kejixinwen/2021-04/14/content_1114204.shtml accessed 25 November 2024.

[9] Xinhua News Agency, '中共中央 国务院关于加快经济社会发展全面绿色转型的意见 [Opinions of the CPC Central Committee and the State Council on Accelerating the Comprehensive Green Transformation of Economic and Social Development]' (GOV.CN, 11 August 2024) https://www.gov.cn/zhengce/202408/content_6967663.htm accessed 22 November 2024.

[10] Xiaohui Liang and Yanbing Xie, '我国拟立学位法：利用人工智能代写学位论文等行为或被撤销学位证书 [China Proposes Academic Degree Law: Using AI to Write Thesis May Lead to Degree Revocation]' (28 August 2023) http://www.npc.gov.cn/npc/c2/c30834/202308/t20230828_431187.html accessed 25 November 2024.

[11] ibid.

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2.2 Existing Administrative Regulations and Overlapping Scope with AI

China currently lacks administrative regulations specifically focusing on AI. However, two existing regulations overlap significantly with AI-related concerns:

1. **Regulations on the Administration of Network Data Security** (effective from January 1, 2025):[12] This regulation is foundational in digital law, covering various aspects of AI, including personal data protection, cybersecurity, content safety, and algorithmic discrimination by major platforms. It serves as a broad framework for AI governance.
2. **Regulations on the Online Protection of Minors** (effective since January 1, 2024):[13] These regulations address issues such as algorithmic addiction, particularly involving smart devices like mobile phones. For example, Article 19 directly addresses this concern.

2.3 Departmental Regulations and the Role of the CAC

Three departmental regulations issued by the **Cyberspace Administration of China (CAC)** target different AI application scenarios. These focus on: 1) **Recommendation Algorithms**;[14] 2) **Deep Synthesis (Deepfake) Algorithms**;[15] 3) **Generative AI.**[16]

In particular, CAC's approach to regulating AI or algorithms is centered on the regime of Algorithm Registry. Providers of certain recommendation algorithms, deep synthesis, and generative AI technologies must register detailed information with the CAC before offering services in China.[17] By August 2024, over 2579 deep synthesis algorithms and generative AIs had been registered, with much of this information available to the public.[18] Recently, the

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[12] '网络数据安全管理条例 [Regulation on the Management of Network Data Security]' (国务院 [State Council], 24 September 2024) https://www.gov.cn/zhengce/content/202409/content_6977766.htm accessed 25 November 2024.

[13] '未成年人网络保护条例 [Regulations on the Protection of Minors Online]' (国务院 [State Council], 16 October 2023) https://www.gov.cn/zhengce/content/202310/content_6911288.htm translated at https://www.chinalawtranslate.com/en/online-protection-of-minors/ accessed 25 November 2024.

[14] '互联网信息服务算法推荐管理规定 [Provisions on the Administration of Algorithmic Recommendations in Internet Information Services]' (国家互联网信息办公室 [Cyberspace Administration of China], 26 November 2022) https://www.gov.cn/zhengce/2022-11/26/content_5728941.htm translated at https://www.chinalawtranslate.com/en/algorithms/ accessed 25 November 2024.

[15] '互联网信息服务深度合成管理规定 [Provisions on the Administration of Deep Synthesis Internet Information Services]' (国家互联网信息办公室 [Cyberspace Administration of China], 12 December 2022) https://www.gov.cn/zhengce/zhengceku/2022-12/12/content_5731431.htm translated at https://www.chinalawtranslate.com/en/deep-synthesis/ accessed 25 November 2024.

[16] '生成式人工智能服务管理暂行办法 [Interim Measures for the Administration of Generative Artificial Intelligence Services]' (国家互联网信息办公室 [Cyberspace Administration of China], 10 July 2023) https://www.gov.cn/zhengce/zhengceku/202307/content_6891752.htm translated at https://www.chinalawtranslate.com/en/generative-ai-interim/ accessed 25 November 2024.

[17] See supra notes 14–16.

[18] Xiaowei Guo, '我国算法备案信息一览，深度合成算法 1919 个、信息服务算法 446 个、AIGC188 个、地方 26 个 [Overview of Algorithm Registries in China: 1919 Deep Synthesis Algorithms, 446 Information

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CAC drafted regulations requiring the labeling of AI-generated content, which is currently under public consultation.[19]

Several key Chinese cities, including Shanghai,[20] Shenzhen,[21] and Beijing,[22] have enacted AI-specific local regulations. Shanghai and Shenzhen's regulations aim to promote the development of various types of AI, while Beijing's regulations focus on promoting autonomous driving while safeguarding public interest and protecting the lives and property of citizens. All these regulations include three categories of content: a reiteration of some high-level AI governance principles, numerous declarative statements encouraging the development of AI, and proposed rules for piloting AI, usually subject to further substantiation. While there are noteworthy developments, such as Beijing's autonomous driving regulations, that explicitly allow for real-world piloting of autonomous driving in "personal passenger vehicles,"[23] these local regulations typically restate existing rules and rarely introduce new legal norms. Since local regulations cannot contradict superior laws, which are still under development, it is difficult for them to propose sufficiently groundbreaking norms. Unlocking the full potential of these local regulations will require comprehensive legislation at the national level, a topic that will be explored further in Section 5.

2.4 Normative Documents and Technical Standards

Normative documents help fill gaps where high-level regulations may be vague or limited in scope. These documents cover a range of contexts, including **biometric identification, social credit, environmental protection, financial regulation,** and **autonomous driving**. The next sections will explore the current state of AI regulation, particularly in financial regulation and autonomous driving, which have been less explored in English-language discussions.

Service Algorithms, 188 AIGC, 26 Local]' (19 August 2024) https://mp.weixin.qq.com/s/2LH6-FOl-mq5eSWsjSKBGA accessed 25 November 2024.

[19] Cyberspace Administration of China, '人工智能生成合成内容标识办法（征求意见稿）[Measures for Labeling of AI-Generated Synthetic Content (Draft for Comments)]' (14 September 2024) <https://www.cac.gov.cn/2024-09/14/c_1728000676244628.htm> accessed 2 February 2025. (translated at https://www.chinalawtranslate.com/en/ai-content-labels/)

[20] 上海市人民代表大会常务委员会 (Shanghai Municipal People's Congress Standing Committee), *上海市促进人工智能产业发展条例 [Regulations for the Promotion of the Development of the Artificial Intelligence Industry in Shanghai Municipality]* (1 October 2022) https://www.shanghai.gov.cn/hqcyfz2/20230627/3a1fcfeff9234e8e9e6623eb12b49522.html (translated at https://cset.georgetown.edu/publication/regulations-for-the-promotion-of-the-development-of-the-artificial-intelligence-industry-in-shanghai-municipality/) accessed 25 November 2024.

[21] 深圳市人民代表大会常务委员会 (Shenzhen Municipal People's Congress Standing Committee), *深圳经济特区人工智能产业促进条例 [Regulations for the Promotion of the Artificial Intelligence Industry in the Shenzhen Special Economic Zone]* (adopted 30 August 2022, effective 1 November 2022) <https://www.szrd.gov.cn/v2/zx/szfg/content/post_966197.html> 27 December 2024.

[22] 北京市人民代表大会常务委员会 (Beijing Municipal People's Congress Standing Committee), *北京市人工智能产业促进条例 [Beijing Artificial Intelligence Industry Promotion Regulations]* (adopted 2 January 2025, effective 1 March 2025) http://www.bjrd.gov.cn/zyfb/202501/t20250102_3979083.html accessed 27 December 2024.

[23] Id., Art. 23(1).

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Many of the laws mentioned rely on **technical standards**, which are classified as **mandatory** or **recommended**. While mandatory standards are legally binding, adhering to recommended standards can offer legal benefits, such as a presumption of compliance or favorable evidence in legal proceedings. China has issued one mandatory technical standard proposal and numerous recommended standards, significantly influencing AI regulatory practices. The development and international engagement of these technical standards will be discussed in more detail below.

3. Technical Governance and AI Standardization

For China, where the digital economy and digital trade are advancing at a rapid pace, the artificial intelligence (AI) industry represents a critical driver of new productivity. Standardization emerges as a cornerstone for achieving technological interoperability. Consequently, the principles of national standardization prioritize the promotion of industrial growth in China through the following pillars:[24]

1. **Innovation-Driven Development**: National standardization must optimize the synergy between industrial scientific and technological (S&T) innovation and standard-setting processes. This includes accelerating research on foundational and general-purpose AI technologies and ensuring the efficient translation of advanced and practical innovation achievements into standardized frameworks.
2. **Application-Centric Orientation**: Standards must be developed with a focus on enterprise-driven, market-responsive applications. By addressing specific industry needs, fostering iterative innovation, and building application scenarios, standardization can promote the integration of AI technologies into key sectors of the economy.
3. **Collaborative Industrial Engagement**: Standardization efforts must encourage collaboration across the AI production chain, facilitating coordination among technical organizations and supporting cross-industry and cross-domain initiatives. This approach ensures the creation of a standardization model that integrates small, medium, and large enterprises.
4. **Open and Cooperative Frameworks**: Recognizing the global nature of AI, China seeks to deepen international cooperation on standardization. Encouraging Chinese enterprises and institutions to actively engage in international standard-setting activities strengthens the alignment of domestic and global AI norms. By fostering partnerships with upstream and downstream actors in the global production chain, China aims to co-create internationally recognized standards.

[24] Ministry of Industry and Information Technology and others, *Guidelines for the Construction of National Artificial Intelligence Industry Comprehensive Standardization System (2024 Edition)* (国家人工智能产业综合标准化体系建设指南（2024 版）, 2024) 2–3 https://www.gov.cn/zhengce/zhengceku/202407/content_6960720.htm accessed 25 November 2024.

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China's roadmap for AI standardization adopts a systematic "Discover-Resolve-Verify" framework as briefed below, underscoring the importance of coordinated industrial action to support structured technological development. This roadmap integrates normative documents, administrative guidelines, and emerging national standards to advance the domestic AI ecosystem while positioning China as a proactive contributor to the establishment of international AI standards. Through these measures, China seeks not only to shape its domestic AI landscape but also to contribute actively to international AI norms.

3.1 Roadmap of China's AI Standardization

To be specific, the roadmap for AI standardization, both in China and internationally, adheres to a **Discover-Resolve-Verify** framework.[25] While the overarching philosophy is consistent, the nuances and emphasis in implementation vary, reflecting regional priorities and strategic goals. This process can be articulated as follows:

3.1.1 Discovery Phase

In the discovery phase, the emphasis is on the foundational and overarching aspects of AI technology. Standards focus on:

- Concepts and Terminology: Establishing clear definitions to foster shared understanding.
- Functional and Business Characteristics: Outlining operational and managerial frameworks.
- Technological Reference Frameworks: Developing models for technology stacks and architecture.
- Sustainability and QA Testing: Setting guidelines for environmentally responsible AI and ensuring quality assurance.

These elements form the bedrock of AI standardization, ensuring a coherent foundation for subsequent stages.

3.1.2 Resolve Phase

The resolve phase sees a divergence in the scope and structure of standardization between China and the international community. In particular, China's Comprehensive Approach is to prioritize five key areas:

1. Enabling new forms of industrialization.
2. Developing smart products and services.
3. Addressing emerging AI technologies.
4. Advancing basic supporting technologies, including chips, sensors, computer architecture, and R&D frameworks.
5. Sector-specific applications of AI.

[25] ibid.

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Unlike the more fragmented and specialized approach observed in international standardization efforts, China's strategy bears a certain degree of systematization. By integrating basic supporting technologies and sectoral applications, China seeks to promote large-scale industrialization through standardization. This approach aims to catalyze technological advancement at higher levels and unlock diverse application scenarios. For example, international standards like ISO/IEC CD TS 6254 and ISO/IEC AWI TR 18988 align with these objectives but tend to address narrower technical aspects in isolation.

3.1.3 Verify Phase

The verify phase is marked by reflective and interdisciplinary engagement with AI technologies. Scholars, engineers, and practitioners evaluate AI applications and use cases to consider:

- Risks vs. Benefits
- Challenges vs. Opportunities
- Costs vs. Revenues

This phase not only identifies gaps in existing frameworks but also inspires the development of additional standards. In China, the focus lies heavily on cybersecurity and the governance of the AI ecosystem, ensuring trustworthiness and ethical compliance. Internationally, similar initiatives exist, as reflected in standards such as ISO/IEC 23894 (AI trustworthiness), ISO/IEC TR 24368 (AI governance), and ISO/IEC TR 24028 (AI risk management).

While the Discover-Resolve-Verify paradigm underpins both Chinese and international AI standardization efforts, the distinction lies in the approach and emphasis. China's centralized and integrative strategy contrasts with the segmented and often reactive methodology seen in international forums. Together, these efforts underscore the critical role of standardization in shaping the future of AI. Moreover, this philosophy is a continuous iteration, and the key driver for iteration always comes from a breakthrough in AI technology, whether it is algorithm optimization or computing power enhancement. However, the emergence of standard revision due to the use cases can only be regarded as the adaptive standardization process that takes place in the application process after the technological breakthrough. Businesses, governments, or individuals could feel confident that by using comparative mature practices-standards from AI technology innovators or pioneers-they could follow the Know (Discover), Use (Resolve), and Manage (Verify) path.

3.2 Incubation Period for Generative AI Standardization

AI represents a broad and multifaceted field, which has consequently spurred considerable standardization activity both within China and internationally. However, it is important to recognize that international standards, due to their formal approval and publication timelines—typically ranging from 24 to 36 months—are currently limited in the domain of generative AI. As of now, only a few such standards are available from bodies like ISO, IEC, and ITU, with ISO/IEC 24661:2023 being one of the rare exceptions. In light of this, "quasi-

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standards," such as technical guidance documents and technical reports, have assumed a similar role in providing direction. Notably, some initiatives are on the cusp of becoming formal standards, with ISO/IEC TR 24030:2024 and ISO/IEC TR 24372:2021 representing key examples of works nearing official status.

In parallel, China has been actively developing a robust body of AI-related standards, encompassing national, industry, and group standards, particularly in emerging areas of AI technology. A search of China's National Standardization Platform, using the keyword "人工智能 (artificial intelligence)," reveals that, as of October 2024, 11 national standards, 11 industry standards, and 13 local standards have been published. Moreover, an additional 36 standards are in the process of development. Among these, generative AI has emerged as a particularly dynamic field, with standards related to social impact assessment, training datasets, tagging and labeling methods, cybersecurity, and algorithmic transparency either already published or under active development.

3.3 Comparison of AI Standard Systems between China and EU

A comparative analysis of China's Guidelines for the Construction of National Artificial Intelligence Industry Comprehensive Standardization System (2024 Edition),[26] and the EU's AI Watch: Artificial Intelligence Standardization Landscape Update,[27] reveals that the similarities in their AI standardization approaches significantly outweigh the differences.

- Shared Foundations: Both frameworks draw from international AI cooperation initiatives and align their standards development and revisions with established laws and regulations. This reflects a commitment to integrating international consensus with domestic regulatory contexts.
- Dual AI Standards Systems: Both China and the EU adopt a joint AI standards model, combining the adoption of domestically developed standards with the incorporation of international standards to create comprehensive frameworks.
- Discover-Resolve-Verify Framework: Both economies adhere to the Discover-Resolve-Verify paradigm, emphasizing critical "firewall" elements—such as privacy, cybersecurity, risk management, ethics, and trust—in their AI standards.
- Data Training Standards: Both entities impose stringent requirements on the training datasets that underpin AI technologies, ensuring high standards for quality and accountability.

3.3.1 Divergences: Industrial Innovation and Strategic Priorities

[26] ibid.
[27] J Soler Garrido and others, *AI Watch: Artificial Intelligence Standardisation Landscape Update*, EUR 31343 EN (Publications Office of the European Union, Luxembourg, 2023) ISBN 978-92-76-60450-1, JRC131155 https://publications.jrc.ec.europa.eu/repository/handle/JRC131155 accessed 25 November 2024.

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The primary divergence between China and the EU lies in the scale and maturity of their digital economies and the resulting industrial innovation.

- China's Digital Economy Rise: China's robust digital economy drives its AI advancements and underpins its standardization initiatives. By 2023, China's online operations generated over 53.9 trillion yuan (approximately USD $7.4 trillion), accounting for 42.8% of its GDP.[28] With 32.85ZB of new data generated and a total computing power capacity of 230 EFLOPS (billions of floating-point operations per second),[29] China's infrastructure far outpaces the EU's capabilities. Moreover, China's dominance in "super apps" such as WeChat, DouYin/TikTok, and Alipay further amplifies its digital economy's global influence, despite geographical unevenness.
- EU's Industrial Lag: By contrast, the EU lacks equivalent digital platforms compared to the USA and China,[30] and lags in key areas of intelligent manufacturing, particularly in emerging sectors like electric vehicles, in which China's advantages stem from early investments, comprehensive government policies, and a well-developed battery production ecosystem.[31] This difference in the lack of fundamental industrial demands in AI applications may extend to the standardization of AI in these sectors, where China's advancements may be more noticeable.

3.3.2 The Path to 2026: Parallel Development and Global Collaboration

By 2026, China is poised to solidify its initiatives in AI standardization, with more than 50 domestic AI standards and over 20 international AI standards anticipated.[32] This period represents an era of parallel standardization efforts between China and global entities, characterized by consensus-building and collaborative deliverables in common areas.

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[28] China Academy of Information and Communications Technology, '中国数字经济发展研究报告（2024年） [China Digital Economy Development Research Report (2024)]' (August 2024) http://www.caict.ac.cn/kxyj/qwfb/bps/202408/t20240827_491581.htm accessed 25 November 2024.

[29] National Data Administration, *Digital China Development Report (2023) [数字中国发展报告（2023 年）]* (2024) 1–2 https://www.szzg.gov.cn/2024/xwzx/szkx/202406/P020240630600725771219.pdf accessed 25 November 2024.

[30] The USA and China are home to some of the largest and most influential digital platforms globally, such as Google, Amazon, Alibaba, and Tencent. These companies have established significant market power and user bases that EU platforms struggle to match. The EU's digital landscape is characterized by a predominance of small and medium-sized enterprises, which often lack the resources to scale up to the level of their American and Chinese counterparts. See Aifang Ma, 'Digital Legislation: Convergence or Divergence of Models? A Comparative Look at the European Union, China and the United States' (19 November 2024) https://www.robert-schuman.eu/en/european-issues/769-digital-legislation-convergence-or-divergence-of-models-a-comparative-look-at-the-european-union-china-and-the-united-states accessed 25 November 2024.

[31] ACEA, 'EU Electric Vehicle Industry Risks Losing Ground without a Robust EU Industrial Strategy, New Report Finds' (*ACEA - European Automobile Manufacturers' Association*, 14 December 2023) https://www.acea.auto/press-release/eu-electric-vehicle-industry-risks-losing-ground-without-a-robust-eu-industrial-strategy-new-report-finds/ accessed 25 November 2024.

[32] Xinhua, 'China to Formulate Over 50 Standards for AI Sector by 2026' *Xinhua* (Beijing, 2 July 2024) https://english.www.gov.cn/news/202407/02/content_WS668403b6c6d0868f4e8e8c85.html accessed 25 November 2024. See also supra note 24, 2.

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With the establishment of initial international AI standard frameworks, China plans to capitalize on its advantage over emerging, intelligent, and green industries by proposing new international standard projects or elevating national standards to the international level. This strategic approach aims to enrich the Resolve phase of the standardization process with a more extensive and effective suite of standards, while continuing to advance the Discover and Verify phases in parallel with other economies.

4. Classified AI: The Cases of China's Sectoral and Contextual Governance

Understanding China's regulatory framework for AI requires examining how technical standardization efforts are complemented by sector-specific governance models. The application of AI across various sectors, such as autonomous driving and financial technologies, highlights the practical implementation of regulatory initiatives and how they cater to the distinct needs of each field. These classified AI governance examples illustrate the strategic deployment of tailored regulatory approaches, including pilot programs, risk management practices, and phased legislative measures, aimed at mitigating risks while promoting innovation. The subsequent section delves into these specific use cases, providing insight into how China's adaptive governance model functions in diverse, high-impact sectors.

4.1 Autonomous Driving

The emergence of autonomous driving as a transformative application of artificial intelligence (AI) has propelled Chinese policymakers to establish a governance framework that is both adaptive and strategic. This framework reflects a clear vision, evolving through three distinct phases: an initial focus on fostering technical research and development (R&D), localized regulatory pilots to facilitate road testing, and a current emphasis on enabling commercialization alongside robust data security measures.

China's regulatory model exemplifies a deliberate and pragmatic approach to governing emerging technologies. By adopting a "pilot-first, phased implementation" strategy, the legislative framework has enabled iterative learning and gradual policy refinement, aligning regulatory oversight with technological advancements. The following section explores the defining features of China's approach, including its reliance on local legislative experimentation, emphasis on data protection, and commitment to balancing innovation with public safety.

4.1.1 The Phased Autonomous Driving Legislation in China

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At the foundational stage, Chinese policymakers prioritized technical R&D through supportive policies, creating the conditions for rapid innovation. This phase was followed by localized regulatory initiatives that empowered municipal governments to design and implement road-testing protocols. These experiments provided critical insights, informing national-level policies and mitigating risks associated with premature adoption of autonomous driving technologies. In its latest phase, China's governance has shifted toward scaling commercialization. This involves addressing complex issues such as liability frameworks, cybersecurity, and data governance, reflecting a sophisticated understanding of the broader societal and economic implications of autonomous driving. Notably, the emphasis on data security aligns with China's overarching commitment to safeguarding sensitive information in an increasingly interconnected digital environment.

The phased implementation model serves as the cornerstone of China's governance strategy. By prioritizing pilot programs, regulators may further ensure that policies and trial regulations are grounded in practical application, reducing uncertainty and fostering public trust. This approach, coupled with a strong emphasis on public welfare, positions China as a case in leveraging regulatory frameworks to drive innovation while managing associated risks.

A. Early Phase: Policy Support and Technological Advancement (Pre-2018)

China's initial engagement with the governance of autonomous driving was marked by a deliberate emphasis on fostering technological advancement rather than the immediate imposition of comprehensive regulatory frameworks. *The 2017 Development Plan for a New Generation of Artificial Intelligence*,[33] promulgated by the State Council, strategically elevated autonomous driving to the status of a critical AI industry within the national agenda. During this formative stage, the government prioritized the formulation of policy mechanisms designed to catalyze technological innovation and accelerate industrial development. This approach was aimed at cultivating an enabling environment for the advancement of autonomous vehicle (AV) technology, thereby establishing the foundational conditions for the subsequent development of regulatory frameworks tailored to operational standards and public safety imperatives.

B. Intermediate Phase: Controlled Road Testing and Local Legislative Innovation (2018–2021)

As autonomous driving technology advanced and moved into real-world testing environments, regulations began to address specific safety, liability, and operational concerns. In 2018, Beijing enacted the *Guidelines for Accelerating Road Testing of Autonomous*

[33] State Council, '新一代人工智能发展规划 [New Generation Artificial Intelligence Development Plan]' (2017) http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm accessed 22 November 2024.

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Vehicles in Beijing (Trial Implementation),[34] setting an early example for other provincial jurisdictions by defining parameters for road testing, liability, and compliance requirements for AV testing entities. Shanghai soon followed, introducing the *Administrative Measures for Road Testing of Intelligent Connected Vehicles (Trial Implementation)*,[35] which expanded on Beijing's framework to include additional safety requirements and liability provisions.

These local regulatory efforts were in parallel to the national *Good Practices for the Administration of Road Tests for Intelligent Connected Vehicles (for Trial Implementation)*,[36] issued in 2018 by the Ministry of Industry and Information Technology (MIIT), Ministry of Public Security, and Ministry of Transport. This document standardized road-testing protocols, required clear testing plans, and outlined the legal responsibilities of stakeholders. The adoption of these early guidelines marked the beginning of China's structured approach to AV governance at the national level, emphasizing controlled testing as a prerequisite for eventual commercialization.

C. Current Phase: National Standards and Commercialization (2021-Present)

With the continued advancement and maturation of autonomous driving technologies, China has progressively implemented comprehensive national standards aimed at facilitating commercial applications and enhancing operational safety. A landmark development in this phase was the 2021 introduction of *GB/T 40429-2021 Taxonomy of Driving Automation for Vehicles*, the nation's first standardized framework for categorizing automation levels. This taxonomy provided a unified reference point for developers, regulators, and operators, ensuring consistency across the autonomous vehicle ecosystem.

Another significant milestone was the issuance of the *Good Practice for the Administration of Road Tests and Demonstrative Application of Intelligent and Connected Vehicles (2021)*,[37] which expanded the scope of governance beyond road testing to include demonstration applications, such as passenger and freight transportation under controlled conditions. These

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[34] Beijing Municipal Commission of Transport and others, '北京市加快推进自动驾驶车辆道路测试指导意见（试行） [Guidelines for Accelerating Road Testing of Autonomous Vehicles in Beijing (Trial Implementation)]' (2017) http://jtw.beijing.gov.cn/xxgk/xwfbh/201712/t20171218_193352.html accessed 25 November 2024.

[35] Shanghai Municipal Commission of Economy and Informatization, Shanghai Public Security Bureau, and Shanghai Municipal Transportation Commission, '上海市智能网联汽车道路测试管理办法（试行） [Shanghai Administrative Measures for Road Testing of Intelligent Connected Vehicles (Trial Implementation)]' (2018) https://www.its-china.org.cn/ds/2307908706.html accessed 25 November 2024.

[36] Ministry of Industry and Information Technology, Ministry of Public Security, and Ministry of Transport, '智能网联汽车道路测试管理规范（试行） [Good Practices for the Administration of Road Tests for Intelligent Connected Vehicles (for Trial Implementation)]' (2018) https://www.gov.cn/zhengce/zhengceku/2018-12/31/content_5440057.htm accessed 25 November 2024.

[37] Ministry of Industry and Information Technology, Ministry of Public Security, and Ministry of Transport, '智能网联汽车道路测试与示范应用管理规范（试行） [Good Practice for the Administration of Road Tests and Demonstrative Application of Intelligent and Connected Vehicles (For Trial Implementation)]' (2021) https://www.gov.cn/zhengce/zhengceku/2021-08/03/content_5629199.htm accessed 25 November 2024.

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guidelines formalized the transition from testing to commercial trials, laying the groundwork for broader deployment. They also articulated specific requirements regarding technical performance, safety protocols, and incident response mechanisms.

The growing commercial viability of autonomous driving technologies has further spurred legislative and regulatory developments. Local innovations, such as Shenzhen's *Ordinance of the Shenzhen Special Economic Zone on Intelligent and Connected Vehicles*,[38] marked the introduction of China's first comprehensive legislation explicitly tailored to autonomous vehicles. This was followed at the national level by frameworks such as the *Pilot Program of Market Access and Road Passage for Intelligent Connected Vehicles,*[39] and the *Safety Guideline for the Use of Autonomous Vehicles in Transportation Services (For Trial Implementation)*.[40] These measures established clear legal criteria for market entry, road operations, and safety compliance, paving the way for the commercialization of autonomous vehicle services.

As of August 2024, this robust regulatory infrastructure has facilitated the issuance of over 16,000 autonomous vehicle testing permits and the designation of more than 32,000 kilometers of public testing roads.[41] These developments have significantly accelerated the validation and refinement of autonomous driving technologies. Commercial autonomous ride-hailing services, such as the "Robobus" initiative,[42] have successfully commenced operations under local regulatory oversight, completing over six million orders across ten cities. Notably, Wuhan, a leading pilot city, has deployed over 400 autonomous vehicles, completing 1.58 million trips and serving nearly two million users, underscoring the scalability and operational viability of autonomous vehicle services in China.[43]

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[38] Standing Committee of the Shenzhen Municipal People's Congress, *Shenzhen Special Economic Zone Ordinance on Intelligent and Connected Vehicles (深圳经济特区智能网联汽车管理条例)* (effective 1 August 2022) https://sf.sz.gov.cn/fggzywyb/content/post_11216374.html accessed 25 November 2024.

[39] Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Housing and Urban-Rural Development, and Ministry of Transport, '关于开展智能网联汽车准入和上路通行试点工作的通知 [Notice on Conducting the Pilot Program for Intelligent Connected Vehicle Access and Road Traffic]' (17 November 2023) https://www.gov.cn/zhengce/zhengceku/202311/content_6915788.htm accessed 25 November 2024.

[40] Ministry of Transport, '交通运输部关于印发《自动驾驶车辆运输安全服务指南（试行）》的通知 [Notice of the Ministry of Transport on Issuing the "Safety Guideline for the Use of Autonomous Vehicles in Transportation Services (Trial Implementation)"]' (5 December 2023) https://xxgk.mot.gov.cn/2020/jigou/ysfws/202312/t20231205_3962490.html accessed 25 November 2024.

[41] Xinhua Net, 'Public Security Organs Have Issued 16,000 Test License Plates for Autonomous Driving Cars' (*Xinhua Net*, 27 August 2024) https://www.news.cn/fortune/20240827/d616644949eb4b3ea2ae0dfbf5871995/c.html accessed 25 November 2024.

[42] Wen Ting, '"汽车机器人"来了，无人驾驶不是梦！百度发布无人车出行服务平台"萝卜快跑" ["Car Robots" Are Here: Driverless Dreams Come True! Baidu Launches Autonomous Vehicle Travel Service Platform "Luobo Kuaipao"]' (*Xinhua*, 19 August 2021) http://www.news.cn/tech/20210819/75fed8a9c75a4c2381da458aed44b54e/c.html accessed 23 November 2024.

[43] China Internet Hubei, '无人驾驶车跑向武汉大街小巷，"萝卜快跑"在汉投放超过 400 辆 [Driverless Cars Hit Wuhan Streets: "Luo Bu Kuaipao" Deploys Over 400 Vehicles in the City]' (12 July 2024) https://baijiahao.baidu.com/s?id=1804383145889047562 accessed 25 November 2024.

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In December 2024, Beijing's pioneering regulatory framework for autonomous vehicles, as embodied in the "Beijing Autonomous Vehicle Ordinance" (effective April 1, 2025),[44] exemplifies a distinctive dual-track approach balancing technological innovation with safety imperatives. The municipal legislature has crafted a comprehensive regulatory architecture that notably extends beyond commercial applications to encompass personal passenger vehicles, while establishing a sophisticated phase-gate system requiring vehicles to progress through road testing, demonstration applications, and safety assessments before obtaining autonomous driving permits. This framework is particularly noteworthy for its integration of smart infrastructure requirements, establishment of a unified municipal management platform for autonomous vehicle data, and systematic expansion of operational scenarios through the 4.0 phase of its pilot zone – which has already accumulated over 32 million kilometers of testing data across 600 square kilometers of vehicle-road-cloud integrated infrastructure, representing more than one-quarter of China's total autonomous vehicle testing mileage.[45]

4.1.2 What Distinguishes Autonomous Driving Legislation in China?

China's legislative framework for autonomous driving reflects a sophisticated and strategic approach designed to accommodate rapid technological innovation while safeguarding public interests. By adopting a phased, pilot-first model, integrating local piloting with national oversight, and emphasizing critical issues such as safety, data security, and balanced innovation, China has laid a robust legal foundation for the development and deployment of autonomous vehicles. This framework is underpinned by a vision to position the nation as a global leader in intelligent and connected vehicle technologies while maintaining a steadfast commitment to regulatory accountability and public trust.

A. Pioneering Through Pilots: A Gradual Path to Regulation

A defining feature of China's legislative strategy is its "pilot-first, phased implementation" approach, which empowers local governments to lead regulatory innovation before formal national laws are enacted. This decentralized model has allowed cities such as Beijing, Shanghai, and Shenzhen to tailor pilot programs to their specific regional needs, creating valuable precedents for subsequent national legislation. For instance, Shenzhen's *Ordinance on Intelligent and Connected Vehicles*, the country's first comprehensive AV-specific legislation, established a legal framework that has significantly influenced broader regulatory

[44] 北京市人民代表大会常务委员会 (Beijing Municipal People's Congress Standing Committee), *北京市自动驾驶汽车条例 [Beijing Autonomous Vehicles Regulations]* (adopted 31 December 2024, effective 1 March 2025) https://www.beijing.gov.cn/zhengce/dfxfg/202501/t20250103_3980149.html accessed 27 December 2024.

[45] Zhi Gao and Zheng Cao, '《北京市自动驾驶汽车条例》将于 2025 年 4 月 1 日施行 本市支持自动驾驶汽车用于个人乘用车出行 [The "Beijing Autonomous Vehicles Regulations" Will Be Implemented on April 1, 2025; The City Supports the Use of Autonomous Vehicles for Personal Passenger Car Travel]' (1 January 2025) https://www.beijing.gov.cn/ywdt/yaowen/202501/t20250101_3978661.html accessed 18 January 2025.

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developments. This phased approach enables the rapid deployment of experimental regulations on a smaller scale, ensuring regional adaptability and providing empirical data to inform the refinement of national standards. Such a model effectively bridges the gap between the fast-evolving nature of autonomous vehicle technology and the need for regulatory consistency and oversight.

B. *Safety at the Core: Managing Risks in a High-Tech Era*

China's regulatory framework prioritizes safety and risk management at every stage of autonomous vehicle development and deployment. Stringent standards apply to testing entities, vehicles, and operators, addressing critical aspects such as real-time monitoring, data recording, and cybersecurity. For AVs engaged in commercial passenger transport, mandatory insurance requirements and rigorous operator qualifications provide additional safeguards. One of the most innovative elements is the introduction of the remote safety officer provision, which permits offsite supervision of fully autonomous vehicles operating in designated zones.[46] This provision represents a significant departure from traditional "one driver per vehicle" oversight, signaling a shift towards leveraging advanced technologies to ensure operational safety while facilitating scalability.

C. *A Symbiosis of Local Innovation and National Standards*

China's regulatory approach seamlessly integrates local piloting with national standard-setting. Cities are encouraged to enact provisional guidelines and pilot programs that address road testing, liability frameworks, and operational protocols. These localized efforts serve as incubators for broader national legislation, allowing the central government to refine and standardize regulations based on empirical evidence from smaller jurisdictions. This dynamic interplay between local and national governance fosters a cohesive yet flexible legal framework that is responsive to technological and regional variations.

D. *Data Integrity: Safeguarding Privacy and Data Protection in the Digital Age*

Given the data-intensive nature of autonomous vehicle technologies, data security and privacy are key pillars of China's regulatory regime. The *Several Provisions on Automotive Data Security Management (Trial Implementation)*,[47] introduced in 2021, sets out stringent requirements for personal data processing, emphasizing principles such as informed consent, data minimization, and transparency. Additionally, the *Notice on Promoting the Development of Intelligent Connected Vehicles and Maintaining the Security of Surveying, Mapping, and*

[46] See Art.6, supra note 40.
[47] Cyberspace Administration of China, National Development and Reform Commission, Ministry of Industry and Information Technology, Ministry of Public Security, and Ministry of Transport, '汽车数据安全管理若干规定（试行） [*Provisions on Automotive Data Security Management (Trial)*]' (16 August 2021) https://www.gov.cn/zhengce/zhengceku/2021-09/12/content_5640023.htm accessed 25 November 2024.

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Geoinformation establishes robust protocols for high-precision mapping data, critical for AV navigation and decision-making.[48] These measures highlight the centrality of cybersecurity and data protection within the broader framework of China's AI and autonomous driving governance.

E. Innovation Meets Accountability: A Balanced Approach

China's legislative framework reflects a carefully calibrated approach to promoting technological innovation while safeguarding public safety. National initiatives such as the *Innovative Development Strategy for Intelligent Vehicles*,[49] issued by the National Development and Reform Commission, aim to achieve ambitious milestones, including mass production of conditionally autonomous vehicles by 2025 and the introduction of highly autonomous vehicles in controlled environments. This long-term vision is supported by an adaptable regulatory structure that ensures the gradual integration of autonomous vehicles into public infrastructure under strict safety and operational standards and builds a sustainable and globally competitive ecosystem for autonomous vehicle technologies.

4.2 Financial AI

In recent years, artificial intelligence (AI) has become a cornerstone of financial innovation, reshaping how financial services are delivered. Its applications span a broad range of activities, including customer service, credit scoring, investment advisory, and financial transactions. These developments have elevated efficiency and reduced costs while creating new challenges in governance. Chinese regulators, recognizing the transformative potential of AI, have focused particular attention on three key areas: robo-advisors, quantitative trading, and AI application in credit services.

4.2.1 The Technology-Contextual Financial AI Governance in China

The financial sector has been a particularly fertile ground for the application of artificial intelligence in China, reshaping key functions like customer service, credit evaluation, and investment advisory. These innovations have prompted regulators to address a range of emerging challenges, from consumer protection to systemic financial risks. The governance of financial AI in China is marked by a technology-contextual approach that adapts oversight

[48] Ministry of Natural Resources, '关于促进智能网联汽车发展维护测绘地理信息安全的通知 [Notice on Promoting the Development of Intelligent Connected Vehicles and Maintaining the Security of Surveying, Mapping, and Geoinformation]' (25 August 2022) https://zjjcmspublic.oss-cn-hangzhou-zwynet-d01-a.internet.cloud.zj.gov.cn/jcms_files/jcms1/web1568/site/attach/0/b7ff0022f9104c09bfa42745c5eef95d.pdf (Forwarded by Zhejiang Provincial Department of Natural Resources) accessed 25 November 2024.

[49] National Development and Reform Commission and others, *智能汽车创新发展战略 [Intelligent Vehicle Innovation Development Strategy]* (24 February 2020) https://www.ndrc.gov.cn/xxgk/zcfb/tz/202002/t20200224_1221077.html accessed 23 November 2024.

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to specific uses, reflecting an evolving understanding of both the capabilities and potential hazards of AI technologies in the financial domain. The following exploration outlines key examples, such as robo-advisors, quantitative trading, and AI-based credit services, to illustrate the diverse regulatory responses undertaken to ensure a balance between technological advancement and financial stability.

A. Robo-Advisors: Pioneers of AI-Driven Portfolio Management

Robo-advisors first appeared in China in 2014, gaining rapid momentum by 2015.[50] These automated systems, which range from semi-automated tools to fully autonomous platforms, provide portfolio advice based on AI algorithms. Robo-advisors can be run by traditional licensed institutions, internet corporations or third-party asset management corporations. Despite their rapid adoption, early lax regulations contributed to operational failures. Frequent failures after 2016 prompted regulators to impose stricter requirements, effectively curtailing the sector's growth.[51] While these measures aimed to protect investors, they also demonstrate the complexities of striking a balance between innovation and financial stability and security. Currently in China, due to consideration of financial security and customer protection, China has shut down nearly all the third-party robo-advisors, and set strict restrictions for the robo-advisors run by banks.[52]

B. Quantitative Trading: Algorithms in the Driver's Seat

Quantitative trading represents another significant application of AI in finance. Automated trading algorithms execute securities transactions, optimizing speed and accuracy. However, the risks associated with these systems—such as market manipulation or systemic instability—demand robust oversight. To address these issues, the China Securities Regulatory Commission (CSRC) issued the 2024 *Provisions on the Administration of Program Trading in the Securities Market*. These regulations emphasize statistical monitoring, reporting systems, and enhanced scrutiny, reflecting a proactive approach to mitigate risks.

C. Credit Services: AI as the New Underwriter

AI has revolutionized credit services by streamlining data collection for lending and risk management. These technologies promise greater objectivity and efficiency in pricing and

[50] In April 2014, China's first Robo-advisory platform "Clipper" was established, aiming to guide the customers to invest on the overseas ETFs. See AQUMON, 'The Story of Robo-Advisor in China' (11 April 2019) https://www.aqumon.com/en/blog/160/the-story-of-robo-advisor-in-china/ accessed 25 November 2024.
[51] Di Xingsi, 'From Prosperity to Deadlock: What's Wrong with Financial Supervision on Robo-Advisors in China' (2022) 13(2) *Asian Journal of Law and Economics* 223.
[52] Jiaxin Ma, '再次整改！多家银行停止智能投顾服务，未来能否重启？ [Rectification Again! Many Banks Have Stopped the Robo-Advisory Service, Can It Be Restarted in the Future?]' (*The Paper*, 30 June 2022) https://m.thepaper.cn/baijiahao_18815453 accessed 25 November 2024.

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monitoring exposures.[53] Yet, their reliance on machine learning exposes inherent flaws, such as inaccurate Know-Your-Customer (KYC) processes, potentially undermining financial stability. Regulatory policies, therefore, stress compliance and systemic risk prevention to safeguard both borrowers and lenders, such as the mandatory individual standard – *Guidance on Information Disclosure for Financial Applications Based on Artificial Intelligence Algorithms (2023)*.[54]

4.2.2 Agile Fintech Governance: From Permissive to Iterative

The governance of financial AI in China exemplifies the broader challenges and opportunities presented by the integration of AI into critical industries. It reveals how tailored regulatory responses—ranging from initial permissiveness to more cautious, sector-focused oversight—seek to balance innovation with risk mitigation. Moving forward, the evolution of financial AI governance must navigate complex intersections between technological development, consumer protection, and systemic stability. This evolving governance landscape is encapsulated in China's **agile fintech regulatory model**, which has shifted from open and permissive approaches to a more iterative and risk-sensitive framework, striving for a balance between fostering innovation and safeguarding financial markets.

A. Regulatory Coordination: Preventing Gaps in Governance

The multifaceted nature of FinTech requires collaboration among China's financial regulatory bodies to avoid oversight gaps.[55] Since 2014, a phased approach to financial AI governance has emerged, addressing issues sector by sector. For example, the 2024 CSRC provisions target quantitative trading, while broader initiatives like the *Guiding Opinions on Deepening the Application of Artificial Intelligence by Financial Institutions* (2022) provide overarching principles for the financial industry. In addition, regulators come to realize that, in order to truly address regulatory gaps and the scope for regulatory arbitrage, emerging financial activities will be fully and properly regulated and all financial products with the same functions and the same relationships will be regulated by the same regulatory authorities under the same regulations.

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[53] Rossella Locatelli and others, *Artificial Intelligence and Credit Risk* (Palgrave Macmillan, 2022).
[54] People's Bank of China, '人工智能算法金融应用信息披露指南 [Guidance on Information Disclosure for Financial Applications Based on Artificial Intelligence Algorithms]' (8 November 2023) https://std.samr.gov.cn/hb/search/stdHBDetailed?id=0E01B7DCBB0C20A2E06397BE0A0A0C7F accessed 25 November 2024.
[55] Financial regulatory bodies refer to PBOC, CSRC, CBRC and the State Administration of Foreign Exchange. See Article 31, People's Bank of China, China Banking and Insurance Regulatory Commission, China Securities Regulatory Commission, and State Administration of Foreign Exchange, 'Guiding Opinions on Regulating the Asset Management Business of Financial Institutions' (*Yinfa No. 106 [2018]*) (27 April 2018) https://www.gov.cn/gongbao/content/2018/content_5323101.htm accessed 23 November 2024.

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B. From Permissive to Balanced: The Evolution of Governance

China's regulatory trajectory reflects a shift from permissiveness to a balanced framework.[56] In the early phases, low barriers to market entry spurred rapid development in robo-advisors. However, the industry's subsequent struggles highlight the unintended consequences of limited oversight. By contrast, the regulatory frameworks for quantitative trading and credit services adopt a more cautious, risk-focused approach, emphasizing systemic stability over unfettered innovation.

C. Navigating Risks: A Call for Refined Frameworks

The risks associated with AI in finance—ranging from technical deficiencies to systemic vulnerabilities—demand continuous refinement of regulatory frameworks. Chinese regulators tend to respond to these AI applications through decentralized legislation, with principles of openness and transparency of algorithms in different levels.[57] Regulators must address legal gaps, adapt to rapid technological advancements, and mitigate risks to ensure financial stability. As AI reshapes the lifelines of economic development, its governance requires not only vigilance but also a nuanced understanding of the law's interplay with innovation and risk.

4.3 Generative AI

As discussed briefly in Section 2.3, China's framework for content moderation has increasingly taken shape as a series of specialized regulatory regimes in response to the emergence of generative artificial intelligence (GAI). This framework has followed a dual-track institutionalization: on one hand, it refines the normative rules governing algorithmic processes—most notably through stringent controls over the training data underpinning generative AI models; on the other, it accelerates the judicial resolution of emergent copyright disputes related to AI-generated outputs via specialized courts. This simultaneous progression of regulatory innovation and judicial interpretation apparently represents a deliberate experimental phase in China's broader endeavor to institute comprehensive AI legislation.

4.3.1 GenAI Normative Rulemaking: From Algorithms to Models

[56] Weihuan Zhou, Douglas W Arner, and Ross P Buckley, 'Chapter 3 - Regulating FinTech in China: From Permissive to Balanced' in David Lee Kuo Chuen and Robert Deng (eds), *Handbook of Blockchain, Digital Finance, and Inclusion, Volume 2* (Academic Press 2018) https://www.sciencedirect.com/science/article/pii/B9780128122822000036 accessed 25 November 2024.
[57] Hao Wang, '智能投资顾问服务之法律风险承担 [Legal Risk Bearing of the Intelligent Investment Advisory Service]' (2019) 41 *暨南学报（哲学社会科学版） [Jinan Journal (Philosophy & Social Science Edition)]* 27, 38.

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In an era marked by rapid advancements in GAI, establishing robust normative frameworks is paramount to ensuring both innovation and accountability. This sub-section delves into the regulatory evolution from algorithmic intricacies to comprehensive model oversight, highlighting how the quality of pretraining data fundamentally shapes AI outputs. By scrutinizing the role of vast, unsupervised datasets in the formation of linguistic patterns—as exemplified by models like GPT—and examining the subsequent supervised fine-tuning processes such as Reinforcement Learning from Human Feedback (RLHF), this sub-section underscores the delicate interplay between data integrity, annotation rigor, and model performance. Furthermore, it elucidates the multi-layered oversight architecture introduced by Chinese regulators, which mandates stringent registry, safety evaluations, and content identification protocols to ensure lawful, transparent, and ethically sound generative AI services.

A. The Critical Role of Pretraining Data in Shaping AI Outputs

The integrity of generative AI outputs is intrinsically tied to the quality and composition of pre-training datasets. Taking ChatGPT as an archetype, GPT-series models undergo unsupervised pre-training phases, during which they assimilate linguistic patterns and predictive capabilities from vast corpora.[58] These datasets shape the model's capacity to generate contextually relevant outputs in response to user prompts. While the precise causal relationship between input data and output content remains obscured by the "black box" phenomenon—where the internal decision-making processes of complex neural networks resist human interpretability—empirical evidence confirms that variations in training data parameters (e.g., volume, diversity, bias mitigation) exert profound downstream effects on model performance and output reliability.[59]

Recognizing this linkage, Chinese regulators have prioritized pre-training data governance as a cornerstone of GAI oversight. Article 7 of the *Interim Measures for the Administration of Generative Artificial Intelligence Services* (hereinafter "*Interim Measures*") exemplifies this focus by imposing five core obligations on service providers:

(1) Utilization of legally sourced data and foundational models;
(2) Avoidance of intellectual property (IP) infringement;
(3) Compliance with personal information consent requirements or statutory exemptions;
(4) Implementation of measures to enhance data quality, including veracity, accuracy, objectivity, and diversity;

[58] Alec Radford and others, 'Improving Language Understanding by Generative Pre-Training' (OpenAI, 2018) https://cdn.openai.com/research-covers/language-unsupervised/language_understanding_paper.pdf accessed 2 February 2025; Alec Radford and others, 'Language Models Are Unsupervised Multitask Learners' (OpenAI, 2019) https://cdn.openai.com/better-language-models/language_models_are_unsupervised_multitask_learners.pdf accessed 2 February 2025; Tom B Brown and others, 'Language Models Are Few-Shot Learners' (arXiv, 22 July 2020) http://arxiv.org/abs/2005.14165 accessed 2 February 2025.
[59] Rishi Bommasani and others, 'On the Opportunities and Risks of Foundation Models' (arXiv, 12 July 2022) http://arxiv.org/abs/2108.07258 accessed 2 February 2025.

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(5) Adherence to overarching cybersecurity, data security, and personal information protection laws (e.g., *Cybersecurity Law*, *Data Security Law*, *Personal Information Protection Law*).

Subsections (1)–(3) codify baseline protections for third-party rights during data acquisition, ensuring lawful sourcing and minimizing infringement risks. In contrast, subsection (4) represents a proactive regulatory intervention aimed at mitigating systemic risks arising from deficient datasets. Absent diversity and accuracy safeguards, training data contaminated by inaccuracies, biases, or homogeneity may propagate discriminatory outputs or socially deleterious content. Subsection (5) further reinforces legal compliance by embedding sector-specific norms (e.g., cybersecurity protocols) into the GAI regulatory matrix.

B. Supervision of the Training Process as a Pillar of Model Safety

Beyond the pretraining phase, the subsequent supervised fine-tuning stage plays an equally critical role in shaping the final model. During this phase, large-scale models undergo a process of refinement through the application of supervised learning techniques, wherein data annotation becomes pivotal, for instance, through Reinforcement Learning from Human Feedback (RLHF).[60] This process involves human intervention whereby annotators provide labels or corrections to training data, thus enabling the model to better align its outputs with desired performance criteria.

Article 8 of the *Interim Measures* enunciates clear procedural and substantive requirements for data annotation. It mandates that enterprises:

- Develop explicit, operational annotation guidelines that are in strict conformity with the prescribed measures.
- Engage in systematic quality assessments of the annotated data, including random sampling and verification of annotation accuracy.
- Ensure that all personnel involved in data annotation receive adequate training, not only in technical matters but also in understanding the legal and ethical obligations underpinning the process.

These requirements are operationalized through ancillary mechanisms such as mandatory registry systems. Developers seeking regulatory approval for large-scale models must submit detailed documentation, including annotation rules and quality assessment reports. Emerging technical standards—exemplified by the draft *Cybersecurity Technology — Generative Artificial Intelligence Data Annotation Security Specification*—further institutionalize procedural rigor in training processes.[61] This signals an integrated approach to regulation that spans both administrative oversight and technical standardization.

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[60] Nathan Lambert and others, 'Illustrating Reinforcement Learning from Human Feedback (RLHF)' (9 December 2022) https://huggingface.co/blog/rlhf accessed 2 February 2025.

[61] TC260, '网络安全技术 生成式人工智能数据标注安全规范 [Cybersecurity technology — Generative artificial intelligence data annotation security specification]'

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C. *Registry and Safety Evaluation as Cornerstones of Regulatory Oversight*

Also, as mentioned previously, the core oversight system post the Interim Measures in question employs a multi-layered compliance architecture:

- **Algorithm Registry**
  Mandated by the *Provisions on the Management of Algorithmic Recommendations in Internet Information Services*, algorithm filing requires service providers to disclose technical specifications and risk mitigation strategies. Unfiled applications face exclusion from domestic app markets.
- **Model Registry**
  Under Article 17 of the *Interim Measures*, providers of generative AI services must undergo security assessments covering technical architecture, data provenance, training protocols, and application scenarios. As of December 31, 2024, 302 generative AI services and 105 derivative applications had completed central or local filings.[62] Successful registrants must conspicuously display model details (e.g., name, filing number) to ensure user transparency.
- **Safety Baselines**
  The *Basic Safety Requirements for Generative Artificial Intelligence Services* establishes granular technical standards for data processing, model training, and service delivery.[63] Key provisions mandate secure data storage/transmission, periodic safety/security evaluations, and vulnerability remediation—requirements that now serve as de facto thresholds for model registry.
- **Content Identification Protocols**
  As briefed in Section 2.3, the draft *Measures for Labeling of AI-Generated Synthetic Content* addresses growing concerns over synthetic media's potential to deceive. By requiring conspicuous labeling of AI-generated outputs (including format, placement, and visual prominence), the rules aim to balance transparency with operational feasibility for enterprises.

4.3.2 Judicial Enforcement: Emerging Precedents in Generative AI Litigation

Specialized internet courts have begun delineating the contours of liability for AI-related infringements through landmark rulings:

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https://std.samr.gov.cn/gb/search/gbDetailed?id=0422A5FDB58680BCE06397BE0A0AFCC7 accessed 2 February 2025.

[62] Cyberspace Administration of China, '关于发布 2024 年生成式人工智能服务已备案信息的公告 [Notice on the Registry Information of Generative Artificial Intelligence Services for 2024]' (8 January 2025) https://mp.weixin.qq.com/s/gOnPIuexMgB4UcUisvJLuQ accessed 2 February 2025.

[63] TC260, '生成式人工智能服务安全基本要求 [Basic safety requirements for generative artificial intelligence services]' (29 February 2024) https://www.tc260.org.cn/upload/2024-03-01/1709282398070082466.pdf accessed 8 June 2024.

https://doi.org/10.2139/ssrn.5039316

- **Beijing Internet Court (2023): Generative AI Copyrightability**
  In a groundbreaking ruling, the Beijing Internet Court has, for the first time, extended copyright protection to an image generated by artificial intelligence. The decision rested on the finding that, notwithstanding the automated production process, there was sufficient human intervention—particularly in the formulation of creative prompts and the supervision of the generation process—to imbue the work with the requisite originality demanded by copyright law. This judgment not only marks a significant departure from traditional conceptions of authorship but also provides an early judicial indication of how AI-generated content may be accommodated within existing intellectual property frameworks. It thus sets an important precedent for future disputes involving the balance between automated creativity and human agency in the realm of intellectual property (*Li v. Liu Case*).[64]
- **Guangzhou Internet Court (2024): Generative AI Copyright Infringement**
  In the first global adjudication of GAI platform liability, the court held that an AI art service provider infringed exclusive copyrights to the Ultraman character by generating substantially similar imagery upon user prompts. The ruling clarified that service providers bear affirmative duties to implement technical safeguards against infringing outputs (*Ultraman Copyright Case*).[65]
- **Beijing Internet Court (2024): AI Voice Imitation**
  Addressing unauthorized synthesis of a voice actor's vocal patterns, the court established that AI-generated voices are legally actionable if identifiable to a natural person through timbre, intonation, or stylistic features. Defendants' failure to obtain consent for processing proprietary audio data constituted both IP and personality rights violations (*AI Voice Rights Case*).[66]

China's regulatory trajectory reflects a calibrated duality: ex-ante controls via technical standards and registry systems, coupled with ex-post judicial remedies to redress rights violations. For enterprises, these developments underscore non-negotiable compliance priorities:

- **Data Provenance Integrity**: Scrupulous vetting of training data sources to preempt downstream IP or data protection liabilities;
- **User Rights Safeguards**: Contractual clarity on AI tool usage boundaries to mitigate secondary infringement risks.

This experimental phase—marked by iterative rulemaking and judicial pragmatism—offers a template for jurisdictions grappling with the legal paradoxes of generative AI. While

[64] *Li v Liu* (2023) Jing 0491 Min Chu 11279 (Beijing Internet Court, 27 November 2023). See the translation of the civil judgement at https://patentlyo.com/media/2023/12/Li-v-Liu-Beijing-Internet-Court-20231127-with-English-Translation.pdf.
[65] *NewChuangHua Company v an AI company* (2024) Yue 0193 Min Chu 113 (Guangzhou Internet Court, 8 February 2024).
[66] Beijing Internet Court, '全国首例 AI 生成声音人格权侵权案一审宣判 [The Nation's First AI-Generated Voice Personality Rights Infringement Case Was Decided in the First Trial]' (23 April 2024) https://mp.weixin.qq.com/s/IiRKozveJNI5lCa4FGO5aA accessed 2 February 2025.

https://doi.org/10.2139/ssrn.5039316

technical opacity persists, China's hybrid model of sectoral regulation and case-driven liability allocation provides a provisional equilibrium between innovation incentives and rights protection. Subsequent legislative reforms will likely formalize these ad hoc measures into a cohesive statutory framework, informed by ongoing regulatory and judicial praxis.

5. Towards the Chinese AI Law? The Prospect

The 20th National Congress of the Communist Party of China positions artificial intelligence (AI) as a strategically vital technology for China's economic modernization and global competitiveness.[67] AI is integral to the digital economy and a catalyst for industrial upgrading, particularly in intelligent manufacturing. The "AI+" initiative is classified as a new quality productive force,[68] indicating a holistic approach that emphasizes integration with other industries, the creation of internationally competitive digital clusters, and contributions to technological self-reliance.

5.1 External Alignment: China's Global Stance on AI Governance

China's approach to global AI governance has evolved from initial position statements to active advocacy in shaping international frameworks. Beginning with submissions like the "Position Paper on Regulating Military Applications of AI" (December 2021),[69] and a 2022 paper on strengthening AI ethical governance,[70] China established a foundational stance combining technological advancement with ethical constraints and military prudence.

5.1.1 The Multilateral Stance

By 2023, China transitioned from position-taking to agenda-setting. The "Global AI Governance Initiative,"[71] launched at the Belt and Road Forum, articulated a comprehensive vision for international AI governance. China's participation in the inaugural Global AI

[67] Jinping Xi, '高举中国特色社会主义伟大旗帜 为全面建设社会主义现代化国家而团结奋斗——在中国共产党第二十次全国代表大会上的报告 [Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects—Report to the 20th National Congress of the Communist Party of China]' (*Xinhua*, 25 October 2022) http://www.news.cn/politics/cpc20/2022-10/25/c_1129079429.htm accessed 25 November 2024.
[68] Qiang Li, '政府工作报告 [Government Work Report]' (GOV.CN, 12 March 2024) https://www.gov.cn/yaowen/liebiao/202403/content_6939153.htm accessed 25 November 2024.
[69] Ministry of Foreign Affairs, 'Position Paper of the People's Republic of China on Regulating Military Applications of Artificial Intelligence (AI)' (December 2021) https://www.fmprc.gov.cn/eng/zy/wjzc/202405/t20240531_11367523.html accessed 25 November 2024.
[70] Ministry of Foreign Affairs, 'Position Paper of the People's Republic of China on Strengthening Ethical Governance of Artificial Intelligence (AI)' (November 2022) https://www.fmprc.gov.cn/eng/zy/wjzc/202405/t20240531_11367525.html accessed 25 November 2024.
[71] The Third Belt and Road Forum for International Cooperation, 'Global AI Governance Initiative' (2023) http://www.beltandroadforum.org/english/n101/2023/1019/c127-1231.html accessed 25 November 2024.

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Safety Summit and endorsement of the Bletchley Declaration demonstrated a willingness to engage in multilateral frameworks for AI risk management.[72]

In 2024, China's external alignment strategy matured into institutional consensus and advocacy. The Shanghai Declaration on Global AI Governance,[73] emerging from the World AI Conference, proposed new paradigms for global governance structures. China's successful sponsorship of a UN General Assembly resolution on AI capacity building—endorsed by over 140 nations—represents the first global consensus document in this domain.[74] The resolution's emphasis on human-centric development and beneficial AI aligns with China's broader diplomatic narrative of inclusive technological advancement.

China's strategy operates across multiple dimensions. Regionally, initiatives like the AI Development Cooperation Initiative for ASEAN demonstrate commitment to technological cooperation with developing nations.[75] Globally, as evidenced in China's G20 positions, the strategy emphasizes reforming digital governance structures while ensuring AI development does not exacerbate global inequalities. This multi-tiered approach reflects China's vision of "multi-stakeholder, multi-dimensional, and agile collaborative governance," aiming to prevent AI from becoming a "game for wealthy nations and the wealthy only."[76]

> *"To prevent artificial intelligence from becoming a game for wealthy nations and the wealthy only (避免人工智能成为富国和富人游戏)..."*

5.1.2 Advocacy for "Bottom Lines" and Institutional Interoperability

In 2023 and 2024, China's engagement in global AI safety efforts gained momentum through key events and contributions by prominent scientists and industry leaders. Ahead of the 2023 UK AI Safety Summit, Turing Awardee Andrew Yao and others participated in the inaugural

[72] UK Government, 'Countries Agree to Safe and Responsible Development of Frontier AI in Landmark Bletchley Declaration' (*Gov.uk*, 2 November 2023) https://www.gov.uk/government/news/countries-agree-to-safe-and-responsible-development-of-frontier-ai-in-landmark-bletchley-declaration accessed 25 November 2024.
[73] Shanghai Foreign Affairs Office, 'Shanghai Declaration on Global AI Governance' (5 July 2024) https://english.shanghai.gov.cn/en-2024waic/20240705/547774bcf5d44625b9bb6308b89a2938.html accessed 25 November 2024.
[74] United Nations General Assembly, 'Enhancing International Cooperation on Capacity-building of Artificial Intelligence' (adopted 2 July 2024) https://digitallibrary.un.org/record/4054005 accessed 25 November 2024.
[75] Ministry of Science and Technology of the People's Republic of China, 'Minister Wang Zhigang Attends the 11th Forum on China-ASEAN Technology Transfer and Collaborative Innovation and Delivers Keynote Speech' (13 July 2023) https://en.most.gov.cn/pressroom/202308/t20230823_187619.htm accessed 25 November 2024.
[76] Jinping Xi, '携手构建公正合理的全球治理体系 ——在二十国集团领导人第十九次峰会第二阶段会议关于"全球治理机构改革"议题的讲话 [Jointly Build a Fair and Reasonable Global Governance System—Speech on the Reform of Global Governance Institutions at the Second Session of the 19th G20 Summit]' (*GOV.CN*, 18 November 2024) https://www.gov.cn/yaowen/liebiao/202411/content_6988048.htm accessed 25 November 2024.

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International Dialogues on AI Safety (IDAIS), producing a joint statement on mitigating frontier AI risks.[77] The second IDAIS dialogue in Beijing further solidified collaboration, with scientists and industry leaders endorsing redlines for AI development.[78] Zhipu AI became the first Chinese company to sign the Frontier AI Safety Commitments at the AI Seoul Summit,[79] which also unveiled the UK-commissioned "International Scientific Report on the Safety of Advanced AI,"[80] co-advised by Yao and Ya-Qin Zhang. Meanwhile, Shanghai AI Lab emerged as a leader in AI safety research and policy, releasing a report advocating for AI safety outputs as global public goods,[81] aligning with the theme of IDAIS-Venice, which highlighted the Consensus Statement on AI Safety as a Global Public Good.[82]

Advocating for establishing "bottom/red lines" and promoting institutional interoperability underscores a critical approach to harmonizing global efforts in mitigating risks associated with advanced AI systems. In China's evolving perspective on AI safety, "bottom lines" represent fundamental principles or non-negotiable standards to ensure AI development aligns with ethical and safety considerations. These narratives, circulating among technical elites in China, aim to prevent catastrophic risks by establishing universally accepted boundaries.

Institutional interoperability complements this by fostering collaboration across diverse governance frameworks. As AI safety becomes a global priority, differing regulatory philosophies can impede unified action. Interoperability seeks to bridge these gaps, enabling shared norms and practices while respecting national sovereignty. China's increasing engagement with AI safety reflects recognition of the interconnected nature of risks and the need for alignment with global standards, especially in areas like model safety, algorithmic transparency, and risk assessment.

The theoretical underpinnings of this strategy, as articulated by Xue Lan,[83] acknowledge tensions in global AI governance: the mismatch between technological advancement and

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[77] IDAIS, 'IDAIS-Oxford: International Dialogues on AI Safety' (31 October 2023) https://idais.ai/dialogue/idais-oxford/ accessed 25 November 2024.
[78] IDAIS, 'IDAIS-Beijing: International Dialogues on AI Safety' (10–11 March 2024) https://idais.ai/dialogue/idais-beijing/ accessed 25 November 2024.
[79] UK Government, 'Frontier AI Safety Commitments: AI Seoul Summit 2024' (21–22 May 2024) https://www.gov.uk/government/publications/frontier-ai-safety-commitments-ai-seoul-summit-2024/frontier-ai-safety-commitments-ai-seoul-summit-2024 accessed 25 November 2024.
[80] UK Government, *International Scientific Report on the Safety of Advanced AI* (November 2023) https://www.gov.uk/government/publications/international-scientific-report-on-the-safety-of-advanced-ai accessed 25 November 2024.
[81] AI Governance Research Center of Shanghai AI Lab and others, *"人工智能安全作为全球公共产品"研究报告 [Research Report on AI Safety as a Global Public Good]* (4 July 2024) https://www.sipa.sjtu.edu.cn/Kindeditor/Upload/file/20240704/%E7%A0%94%E7%A9%B6%E6%8A%A5%E5%91%8A%E6%89%8B%E5%86%8C-04.pdf accessed 25 November 2024.
[82] IDAIS, *Consensus Statement on AI Safety as a Global Public Good* (IDAIS-Venice, 5–8 September 2024) https://idais.ai/dialogue/idais-venice/ accessed 25 November 2024.
[83] Xue Lan, '清华大学苏世民书院院长薛澜解析 AI 国际治理新路径：中国方案引领全球智能向善 [Dean of Tsinghua University's Schwarzman College Xue Lan Analyzes New Pathways for International AI

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governance evolution, disparities between developed and developing nations, and the complexity of establishing coherent international frameworks. China's response emphasizes practical solutions, including proposals for an IPCC-equivalent body for AI risk assessment and standardized evaluation systems for AI safety.

China's external alignment strategy reflects a sophisticated understanding of both the technological and diplomatic dimensions of AI governance. By emphasizing interoperability between AI frameworks, open standards, and globally acceptable safety mechanisms, China positions itself as a key architect of inclusive international AI governance structures. This approach serves both China's technological ambitions and its diplomatic objective of shaping global governance frameworks that accommodate diverse national interests and development levels. By advocating for these measures, stakeholders can create a resilient ecosystem where AI innovation thrives without compromising societal safety and ethical integrity. This dual strategy ensures that nations collectively contribute to a safer AI future.

5.2 Internal Drivers: Legislative Plans

The legislative trajectory of AI regulation in China, as reflected in recent planning documents, suggests a deliberate and evolving approach by state institutions. The State Council's legislative work plans for 2023 and 2024 list the "Artificial Intelligence Law Draft" under "Draft Laws to be Submitted to the Standing Committee of the National People's Congress for Deliberation."[84] This continuity reflects a sustained commitment to advancing AI governance. Complementing this, the 2024 Legislative Work Plan of the Standing Committee explicitly includes "Projects Related to the Healthy Development of Artificial Intelligence" as initiatives for preparatory deliberation.[85] This joint inclusion underscores a calibrated, phased approach to AI legislation.

The recurrence of AI-related items across consecutive legislative agendas indicates that regulating AI is a priority for the Chinese government. Yet, the deliberately vague phrasing and preparatory framing reveal an intent to proceed cautiously, providing space for flexibility in light of the rapid evolution of AI technologies. This strategy aims for a balance between innovation and regulation. The dual involvement of both the State Council and the Standing

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Governance: China's Plan Leading Global Intelligence for Good]' (*Tencent News*, 4 July 2024) https://news.qq.com/rain/a/undefined accessed 25 November 2024.

[84] General Office of the State Council, '国务院办公厅关于印发国务院 2023 年立法工作计划的通知 [Notice on Printing and Distributing the State Council's 2023 Annual Legislative Work Plan]' (6 June 2023) https://www.gov.cn/zhengce/content/202306/content_6884925.htm accessed 25 November 2024; General Office of the State Council, '国务院办公厅关于印发国务院 2024 年立法工作计划的通知 [Notice on Printing and Distributing the State Council's 2024 Annual Legislative Work Plan]' (9 May 2024) https://www.gov.cn/zhengce/content/202405/content_6950093.htm accessed 25 November 2024.

[85] Standing Committee of the National People's Congress, '全国人大常委会 2024 年度立法工作计划 [Legislative Work Plan of the Standing Committee of the National People's Congress for 2024]' (8 May 2024) http://www.npc.gov.cn/npc/c2/c30834/202405/t20240508_436982.html accessed 25 November 2024.

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Committee highlights the high-level importance attributed to AI within the broader governance framework.

The legislative posture emphasizes an "innovation-conscious regulation" approach, distinguishing itself from purely prohibitive models. This commitment to an adaptive regulatory regime was made clear in August 2024 when the Ministry of Science and Technology confirmed the formal incorporation of the draft AI Law into the State Council's legislative agenda.[86] This ministerial-level endorsement was bolstered in November 2024 when the Chairman of the Standing Committee, during a research visit in Shanghai focused on AI innovation ecosystems and large language model development, reiterated the necessity for comprehensive legal frameworks that support both innovation and responsible AI development.[87]

The choice of Shanghai—a city known for its robust technological ecosystem—as the locus for this legislative engagement is telling. It signifies a strategic approach to AI governance by utilizing tier-one cities with advanced tech industries as testing grounds for regulatory models. The confluence of formal agenda-setting by the State Council and subsequent high-level legislative scrutiny suggests a coordinated and institutionalized approach to AI regulation. Such an approach positions China as an early actor in the global AI regulatory space, drawing parallels with the European Union while retaining distinct "Chinese characteristics" in both regulatory philosophy and execution. This evolving legal framework underscores a dual aim: promoting the sustainable development of AI while ensuring regulatory oversight aligns with China's broader socio-economic governance strategy.

5.3 The Emerging Legislative Proposals

Although Chinese legislators' efforts in AI legislation remain exploratory, there has been a significant emergence of bottom-up initiatives from experts and scholars. To date, academics have advanced two comprehensive legislative proposals aiming to anchor a uniquely Chinese model of AI governance. These scholarly drafts exhibit considerable iteration, reflecting ongoing refinement and adaptation.

[86] Ministry of Science and Technology, '关于促进国内生成式人工智能产业发展的提案的答复 [Response to the Proposal on Promoting the Development of the Domestic Generative Artificial Intelligence Industry]' (14 August 2024) https://www.most.gov.cn/xxgk/xinxifenlei/fdzdgknr/jyta/202410/t20241021_192179.html accessed 25 November 2024.

[87] Shanghai Municipal Government, '李鸿忠在沪调研时强调：把深化改革与法治相统一 加快推进全面改革和高质量发展 [Li Hongzhong Emphasizes Unifying Deep Reform and Rule of Law to Accelerate Comprehensive Reform and High-Quality Development During Shanghai Visit]' (2 November 2024) https://www.shanghai.gov.cn/nw4411/20241104/8dad495300b74ce3877515e8760e0863.html accessed 25 November 2024.

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Expert contributions have substantially shaped the legislative process in China, as exemplified by their role in the development of the Personal Information Protection Law.[88] On August 15, 2023, the "Artificial Intelligence Law (Model Law) 1.0" was introduced as an expert draft proposal.[89] This was followed by versions 1.1 on September 7, 2023,[90] and 2.0 on April 16, 2024.[91] Additionally, on March 16, 2024, the "Artificial Intelligence Law of the People's Republic of China (Scholarly Proposed Draft)" was released.[92] These successive drafts illustrate the concerted efforts of academics and experts to influence legislative discourse and provide actionable proposals for lawmakers.

5.3.1 The Model Artificial Intelligence Law (Expert Draft Proposal)

The Chinese Academy of Social Sciences' "Model AI Law (MAIL)" represents a comprehensive framework for AI governance in China. The law adopts a versioned approach to remain adaptable to technological advances while maintaining core principles of safety, transparency, fairness, and human oversight. It consists of six chapters, beginning with fundamental principles that guide interpretation.

Negative List System: It employs a risk management approach using a "negative list" system, where high-risk activities face stringent oversight while lower-risk innovations operate under simpler registry requirements. This dual system aims to concentrate oversight where most needed, allowing less sensitive AI applications to develop with minimal administrative burden.

AI Obligation Chain: The obligations of AI stakeholders delineate specific duties for developers, providers, and users. These obligations integrate core principles into daily practices, focusing on areas like fairness, transparency, and security throughout the AI lifecycle. The law translates broader values into operational, enforceable requirements across the AI ecosystem, acknowledging the complexity of the AI supply chain.

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[88] Yehan Huang and Mingli Shi, 'Top Scholar Zhou Hanhua Illuminates 15+ Years of History Behind China's Personal Information Protection Law' (*DigiChina*, 2021) https://digichina.stanford.edu/work/top-scholar-zhou-hanhua-illuminates-15-years-of-history-behind-chinas-personal-information-protection-law/ accessed 25 November 2024.

[89] CASS Research Group on AI Ethics and Governance, '《人工智能法（示范法）1.0》（专家建议稿）起草说明和全文 [Artificial Intelligence Law (Model Law) 1.0: Drafting Explanation and Full Text (Expert Proposal)]' (*Redian*, August 2023) https://web.archive.org/web/20230822200944/https://redian.news/wxnews/536749 accessed 25 November 2024.

[90] CASS Research Group on AI Ethics and Governance, '人工智能示范法 1.1 （专家建议稿） [Model Artificial Intelligence Law 1.1 (Expert Proposal Draft)]' (September 2023) http://iolaw.cssn.cn/zxzp/202309/W020230907361599893636.pdf accessed 12 August 2024.

[91] ZHOU Hui and others, *The Model Artificial Intelligence Law (MAIL) v.2.0 - Multilingual Version* (Zenodo, 16 April 2024) https://zenodo.org/record/10974163 accessed 25 November 2024.

[92] AI Governance Forum, '《人工智能法（学者建议稿）》发布 [Artificial Intelligence Law (Scholarly Draft Proposal) Released]' (FXCXW, 16 March 2024) http://www.fxcxw.org.cn/dyna/content.php?id=26910 accessed 25 November 2024.

https://doi.org/10.2139/ssrn.5039316

Centralized Oversight and Authority: The governance framework proposes a centralized approach to AI oversight, recommending the establishment of a national AI authority to coordinate regulation, thereby avoiding fragmented regulatory landscapes. This centralized model ensures coherence in regulatory practices while maintaining adaptability to various regions and industries. It also introduces an AI ethics committee to provide guidance on ethical concerns.

Role-Specific Liabilities: The law addresses legal liabilities, focusing on accountability for stakeholders engaged in high-risk AI activities. It includes provisions for exemptions where compliance measures are actively undertaken, fostering an environment where developers are encouraged to innovate without disproportionate fear of punitive actions.

Iterative Turn to Pro-Innovation Incentives: Transitioning from version 1.0 to 2.0, the Model Law integrates refinements like establishing an AI ethics expert committee and adding specific obligations for state bodies and platform operators. It also incorporates incentives, such as tax benefits, to encourage investment in AI safety measures. These modifications illustrate a commitment to refining governance practices to align AI development with public interest while remaining responsive to industry challenges.

This measured approach recognizes the uncertainties associated with AI and seeks to regulate it through an adaptive, principle-based framework, reflecting China's broader vision for managing emerging technologies.

5.3.2 The Artificial Intelligence Law of P.R.China (Scholarly Draft Proposal)

In March 2024, Beijing witnessed the launch of the "Artificial Intelligence Law of the People's Republic of China (Scholarly Draft Proposal)." The draft introduces significant legal innovations aiming to balance effective AI governance with industry promotion, reflecting a sophisticated approach to managing AI's challenges and opportunities with a clear pro-innovation stance.

Tiered Regulatory System: A dynamic, tiered regulatory framework categorizes AI into "critical AI" and "special application domain AI." "Critical AI" includes applications significantly impacting infrastructure, individual rights, or societal interests. Developers and providers of such AI are subject to stringent obligations like risk assessment and emergency response mechanisms. AI used in "special application domains," such as healthcare and autonomous driving, faces targeted regulatory measures appropriate to each context.

Shift from Restrictive Entry Barriers: Departing from the negative list approach, the draft adopts a flexible notification-based system for critical AI. Instead of requiring pre-approval for all AI technologies, it allows development without restrictive entry barriers, requiring compliance obligations only after an entity is designated as "critical AI." This shift supports

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innovation by reducing compliance burdens at early stages while preserving safety and accountability.

Pro-Innovation Stance: The draft focuses on promoting AI industry development, emphasizing data quality, computational resources, and algorithmic development. It advocates for high-quality datasets, computational resources, and introduces AI-specific insurance products to protect against risks specific to AI applications, creating a safety net for innovators.

Proactive Risk Management: Emphasizing proactive risk management, the draft institutes safety risk assessments at early stages, encouraging developers and providers to implement effective risk management measures throughout development and deployment. It also promotes digital literacy among the public to address risks from misuse.

Differentiated Liability Regime: The draft introduces a differentiated accountability system. General AI is subject to a fault-based liability model, while critical AI uses a fault presumption approach, holding developers responsible unless they can prove otherwise. This differentiation provides extra safety guarantees for high-risk applications while ensuring less restrictive measures for lower-risk innovations.

Adaptive Regulatory Coordination: The draft proposes a comprehensive AI regulatory coordination mechanism to address the complexity and cross-sectoral nature of AI development. This mechanism ensures oversight bodies work in a coordinated manner and can adjust regulatory measures dynamically, reflecting technological progress and evolving risks.

In summary, the draft represents a shift from rigid regulation to an agile, development-oriented model. By reducing pre-approval barriers, creating dynamic regulation frameworks, and incorporating proactive risk management and liability differentiation, it aims to balance safety, innovation, and adaptability.

6. Conclusion

This paper has traced the evolution of AI regulation in China, from fragmented administrative regulations to the emerging vision of a cohesive AI law. The current landscape, marked by sectoral governance and overarching technical standardization efforts, underscores China's strategic approach to positioning itself as a leader in global AI governance.

The comparative analysis of the Model Artificial Intelligence Law (MAIL) and the Scholarly Draft Proposal reflects divergent paths to achieving the dual goals of fostering innovation and ensuring robust governance. MAIL employs a centralized, "negative list" risk management strategy with top-down oversight, while the Scholarly Draft adopts a dynamic, tiered regulatory approach aligning regulation to the context and risk level of AI applications.

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These proposals illustrate a fundamental tension in China's AI regulatory philosophy: balancing centralized control with flexible adaptation, and precaution with innovation-driven development. China's current AI governance model, involving technical standardization and sector-specific regulations, attempts to fill regulatory gaps and respond to the rapid pace of AI advancement. However, challenges of regulatory coherence remain—particularly in maintaining a balance between sectoral regulation and broader governance needs.

Moving forward, it is suggested that the path to a unified AI law in China be framed by three core strategies:[93]

1. **Legal Flexibility and Incremental Adaptation:** Prioritize a phased approach to regulation, beginning with adaptive legal interpretations through judicial and administrative guidance. This will address specific issues and provide a foundation that evolves alongside AI applications.
2. **Delegated Legislation and Local Piloting:** Empower regional governments through pilot programs and delegated legislative authority to test regulatory concepts on a smaller scale, generating empirical data to inform national standards.
3. **Nimble Legislative Development for Urgent Needs:** Establish a hybrid framework blending small-scale, targeted legislative interventions with the gradual development of a comprehensive AI law, allowing quick responses to urgent issues while maintaining broader regulatory coherence.

Ultimately, a comprehensive and forward-looking AI regulatory regime in China will need to balance the unique sectoral characteristics of AI applications with their broader societal and ethical implications. The emerging legislative proposals reflect different facets of this vision. To navigate these divergent but complementary regulatory paths, China will need to remain committed to iterative learning—drawing on international best practices and domestic experiments—to create an AI governance model that is innovative, ethical, and globally interoperable.

In sum, China's AI legislative journey exemplifies its broader approach to emerging technologies—balancing ambitious industrial policies with a cautious regulatory posture aimed at mitigating risk while ensuring technological competitiveness. As AI becomes a driver of economic modernization and global influence, China's legal system is positioned to craft regulations that are both anticipatory and resilient, providing a framework that addresses inherent risks while fostering an environment where responsible innovation can thrive.

[93] Fan Wenyang, '中国人工智能立法怎么走？专家：探索包容审慎分阶段立法思路 [How Should China's AI Legislation Proceed? Expert: Exploring Inclusive and Prudent, Phased Legislative Approaches]' (*Tencent News*, 11 July 2024) https://news.qq.com/rain/a/20240711A09I9000 accessed 25 November 2024.

https://doi.org/10.2139/ssrn.5039316

Fig I: The Structural Diagram of AI Standardization System

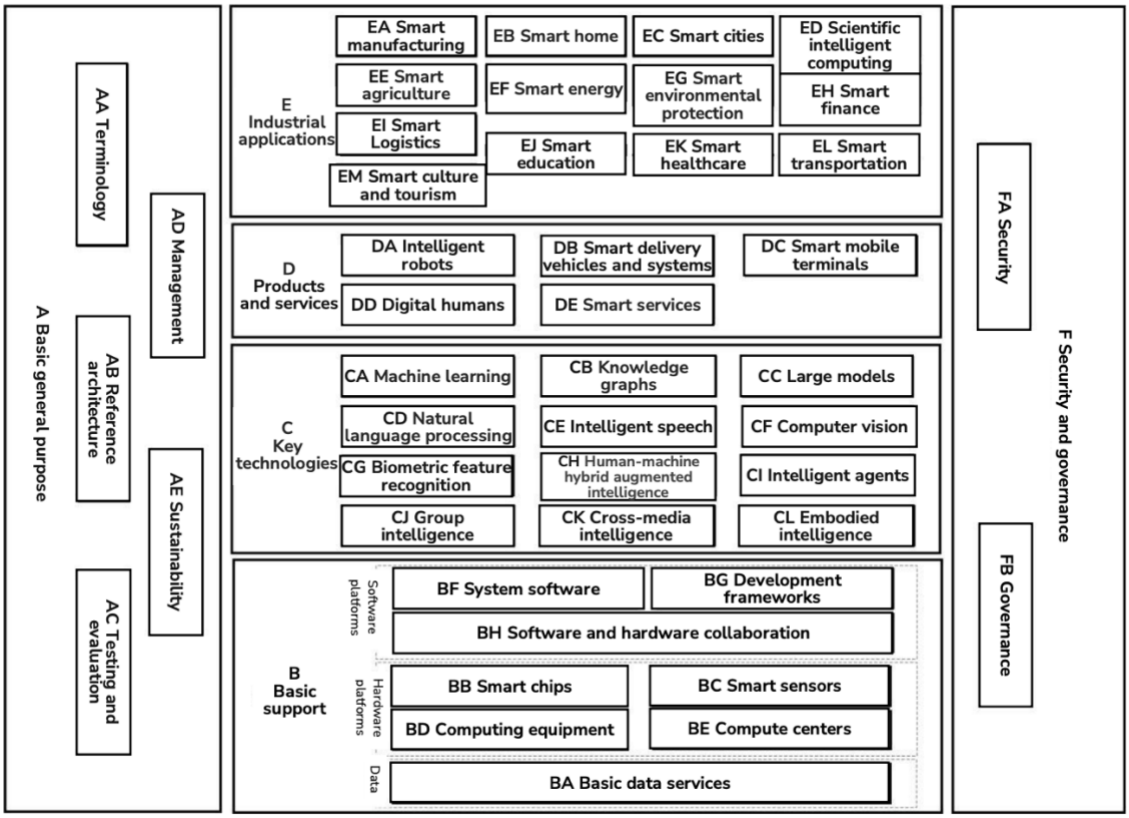

Figure I. The Structural Diagram of the AI Standardization System[94]

[94] Figure adapted from the CSET's English translation of Guidelines for the Construction of a Comprehensive Standardization System for the National Artificial Intelligence Industry (Draft for Feedback) at https://cset.georgetown.edu/publication/china-ai-standards-system-guidelines-draft/.

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Fig II: AI Governance in Autonomous Driving in China

Time (Issued)	*Policies*	*Issuing Authorities*	*Impacts*
2017.7	Development Plan for a New Generation of Artificial Intelligence	State Council	Strongly promotes autonomous vehicles as an emerging AI industry at the national strategic level.
2017.12	Guidelines for Accelerating Road Testing of Autonomous Vehicles in Beijing (Trial Implementation) and Implementation Rules for the Administration of Road Testing of Autonomous Vehicles in Beijing (Trial Implementation) (nullified/repealed)	Beijing Municipal Commission of Transport, Beijing Municipal Public Security Bureau Traffic Management Bureau, Beijing Municipal Commission of Economy and Information Technology	The first local regulatory document in China governing road testing of autonomous vehicles.
2018.2	Administrative Measures for Road Testing of Intelligent Connected Vehicles in Shanghai (Trial Implementation) (nullified/repealed)	Shanghai Municipal Commission of Economy and Information Technology, Shanghai Municipal Public Security Bureau, Shanghai Municipal Commission of Transport	Made more detailed provisions on test application conditions, suspension causes, and cancellation causes based on Beijing's regulations, with differentiated provisions on traffic violations and accident liability.
2018.4	Good Practices for the Administration of Road Tests for Intelligent Connected Vehicles (for Trial Implementation) (nullified/repealed)	Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Transport	The first national regulatory document standardizing autonomous vehicle road testing.
2020.2	Innovative Development Strategy for Intelligent Vehicles	National Development and Reform Commission, Ministry of Science and Technology,	At the national strategic level, clarified the goals of achieving scale

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		Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Finance, Ministry of Natural Resources, Ministry of Housing and Urban-Rural Development, Ministry of Transport, Ministry of Commerce	production of conditional autonomous vehicles and market application of highly autonomous vehicles in specific environments by 2025.
2021.3	GB/T 40429-2021 Taxonomy of Driving Automation for Vehicle	State Administration for Market Regulation, Standardization Administration of China	China's first national standard officially defining autonomous driving classification standards.
2021.7	Good Practice for the Administration of Road Tests and Demonstrative Application of Intelligent and Connected Vehicles (for Trial Implementation)	Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Transport	Simplified processes and enhanced national uniformity.
2021.10	Several Provisions on Automotive Data Security Management (for Trial Implementation)	Cyberspace Administration of China, National Development and Reform Commission, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Transport	Established data security requirements in the automotive field and clarified principles and requirements for autonomous driving data usage.
2022.8	Notice of the Ministry of Natural Resources on Promoting the Development of Intelligent Connected Vehicles and Maintaining the Security of Surveying, Mapping and Geoinformation	Ministry of Natural Resources	Clarified that information about vehicles and surrounding road facilities during operation and service testing of intelligent connected vehicles constitutes surveying and mapping activities, significantly impacting high-precision maps

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			for autonomous driving technology.
2022.6	Ordinance of the Shenzhen Special Economic Zone on Intelligent and Connected Vehicles	Standing Committee of Shenzhen Municipal People's Congress	China's first local legislation specifically for intelligent connected vehicles, providing clear legal basis for unmanned vehicles on roads.
2023.11	Pilot Program of Market Access and Road Passage for Intelligent Connected Vehicles	Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Housing and Urban-Rural Development, Ministry of Transport	First national-level policy support for market access and road operation of intelligent connected vehicles equipped with L3 and L4 autonomous driving functions.
2023.11	Safety Guideline for the Use of Autonomous Vehicles in Transportation Services (For Trial Implementation)	Ministry of Transport	First systematic legal clarification of requirements for commercial operation of autonomous vehicles.
2024.12	Beijing Autonomous Driving Vehicle Ordinance	Standing Committee of Beijing Municipal People's Congress	Its Phase 4.0 autonomous vehicle regulatory framework contemplates a systematic expansion of operational parameters, encompassing both enhanced territorial jurisdiction and diversified use cases, while mandating centralized data governance through a unified administrative platform.

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Fig III: AI Governance in Financial Market in China

Time	*Policies*	*Issuing Authorities*	*Impacts*
2014.1	*Opinions on Vigorously Promoting System and Mechanism Innovation and Doing A Solid job in Science and Technology Financial Services*	the People's Bank of China, Ministry of Science and Technology, China Banking Regulatory Commission, et al.	Stating plans and requirements on cultivating and developing the financial organization system to serve scientific and technological innovation, and further deepening the pilot projects to integrate science and technology with finance
2015.7	*Guidelines on Actively Promoting the "Internet Plus" Initiative*	State Council	Making artificial intelligence one of its eleven main initiatives
2016.3	*National Science and Technology Innovation Plan for the 13th Five-Year Plan period*	State Council	The concept of artificial intelligence has entered the 13th Five-Year Plan period
2017.7	*Development Plan of New Generation Artificial Intelligence*	State Council	Raising smart finance to a national strategic level
2018.1	*White Paper on Artificial Intelligence Standardization (2018 edition)*	Standardization Administration of China	A national AI standardization General group and an expert consultation group have been established to promote AI standardization in an all-round way
2018.4	*Guiding Opinions on Regulating the Asset Management Business of Financial Institutions*	the People's Bank of China, the China Banking and Insurance Regulatory Commission, the China Securities Regulatory Commission, and the State Administration of Foreign Exchange	When using a robo-advisor to carry out asset management business, a financial institution shall strictly abide by the general provisions herein on investor suitability, scope of investment, information disclosure, risk isolation, etc.

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2019.9	*FinTech Development Plan (2019-2021)*	the People's Bank of China	The superior design of FinTech regulation in Chinese market basically completed.
2021.12	*FinTech Development Plan (2022-2025)*	the People's Bank of China	Emphasizing a modern Fitech governance framework, highlighting a penetrated governance model.
2022.6	*Guiding Opinions on Deepening the Application of Artificial Intelligence by Financial Institutions*	People's Bank of China; China Banking and Insurance Regulatory Commission; China Securities Regulatory Commission; State Administration of Foreign Exchange	First regulatory document specifically targeting financial AI applications
2022.12	*Administrative Measures for Internet Platforms Engaging in Financial Business (Draft)*	People's Bank of China; China Banking and Insurance Regulatory Commission; China Securities Regulatory Commission	Regulating the use of AI in financial services by large tech platforms
2023.11	*Guidance on information disclosure for financial applications based on artificial intelligence algorithms.*	People's Bank of China;	Principles, forms and contents of information disclosure of AI algorithms

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