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On Intellectual Property as a "Strategic Resource for National Development"

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Intellectual property, as a strategic resource for national development, implies that it is a resource that plays a comprehensive role in the advancement of the country's economy, political civilization, reform and opening up, social civilization, ecological civilization, people's welfare, and governance efficiency. The function of intellectual property determines its potential to become a strategic resource for national development. The construction of an effective market, proactive government, and useful society is the basic conditions, fundamental guarantees, and essential supports for intellectual property to become a strategic resource for national development. The proposal and validation of this new concept are of significant value to the study of intellectual property law: it helps to move beyond the debates among intellectual property scholars regarding the essential attributes of intellectual property, viewing it from a more abstract and macro perspective; it aids in comprehensively understanding the essence of intellectual property law, its regulatory subjects, and other fundamental issues, thereby promoting research into the distinct characteristics of Chinese autonomous intellectual property law. It also poses new requirements for the construction of the rule of law in intellectual property: it necessitates the reasonable positioning of government functions from a positive perspective, increasing the provision of administrative law in the field of intellectual property, enacting more intellectual property laws that express national and social public interests, and formulating foundational intellectual property laws in the context of public law.

Keywords: intellectual property, strategic resource for national development, intellectual property law, intellectual property legal system, essential attributes

Introduction

Since the State Council issued the "National Intellectual Property Strategy Outline" in 2008, which first stipulated that "intellectual property is increasingly becoming a strategic resource for national development," the expression "intellectual property as a strategic resource for national development" has frequently appeared in the minutes of State Council executive meetings (Yuan, 2014), important research reports (Han et al., 2017), or papers (Tian, 2021; Shen, 2018) edited or written by leaders of intellectual property authorities, and has even

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been included in the "Intellectual Property Power Strategy Outline (2021-2035)". However, it has not attracted the attention of mainstream intellectual property scholars. Mainstream intellectual property scholars have not yet explained its significance for intellectual property law research and the construction of the rule of law from a theoretical level. They have not summarized and predicted the extent of the intellectual property law reforms it has already triggered and will continue to trigger. The reason may be that mainstream intellectual property scholars adhere to the view that "the essential attribute of intellectual property is private right, it is a civil right, it is a private property" (Liu, 2003; Wu, 2020, p. 9; Editorial Committee of Intellectual Property Law, 2020, pp. 9-10). Therefore, they naturally believe that intellectual property belongs to the domain of private rights (Wu, 2005; Moerges, 2019), is a private resource, and a private matter. The protection and development of intellectual property should mainly be determined by the market, primarily relying on private law norms, with minimal government intervention (Yu, 2012). From an intuitive analysis, intellectual property as a "strategic resource for national development" will undoubtedly challenge the mainstream intellectual property scholars' understanding of the essential attributes of intellectual property and the fundamental issues of the relationship between the market, government, and society intellectual property. However, regardless of whether mainstream intellectual property scholars pay attention to this concept, since the implementation of the "National Intellectual Property Strategy Outline" in 2008, the series of significant intellectual property governance policies and measures¹ introduced by the state has used it as an essential theoretical basis. The tremendous success (National Intellectual Property Strategy Outline Implementation Ten-Year Evaluation Working Group, 2019, pp. 6-8) achieved in China's intellectual property endeavors increasingly highlights the importance of intellectual property as a "strategic resource for national development". The purpose of this paper is to explain the basic meaning of intellectual property as a "strategic resource for national development" from a theoretical perspective, to explore its essential value for the study of intellectual property law in China, and to analyze the new requirements it poses for the construction of the rule of law in intellectual property in China. This aims to provide a new theoretical perspective for advancing intellectual property law research with Chinese characteristics and at a world-class level.

The Basic Meaning of Intellectual Property as a "Strategic Resource for National Development"

According to the definition in *Cihai*, "strategic resources" originally referred to a concept in military science, meaning human and material resources crucial to the overall situation of war and the nation's economy and people's livelihood (Xia & Chen, 2014, p. 4977). It has been extended to indicate resources that play a comprehensive role in developing situations, occupy a fundamental position, and have a long-term impact. "National development" is a concept with multifaceted connotations and is in a state of dynamic change. In *Cihai*, "development" is defined as the process of change from small to large, from simple to complex, from lower to higher levels, and from old qualities to new qualities, with development targets directed at productivity, economy,

¹ Key documents include: An Action Plan for Deep Implementation of the National Intellectual Property Strategy (2014-2020); Several Opinions on Accelerating the Construction of a Strong Intellectual Property Country Under the New Situation; 13th Five-Year National Intellectual Property Protection and Utilization Plan; Opinions on Strengthening Intellectual Property Protection; 2019 Plan to Deeply Implement the National Intellectual Property Strategy and Accelerate the Construction of a Strong Intellectual Property Country.

politics, culture, and society (Xia & Chen, 2014, p. 942). The "Recommendations of the Central Committee of the Communist Party of China on Formulating the Fourteenth Five-Year Plan for National Economic and Social Development and the Long-Range Goals for 2035" set the national development goals for the "Fourteenth Five-Year Plan" period as follows: achieving new results in economic development, making new strides in reform and opening up, improving the level of social civilization, making new progress in ecological civilization construction, reaching a new level of people's welfare, and enhancing the efficiency of national governance. Accordingly, a definition of intellectual property as a strategic resource for national development can be given: intellectual property is a resource that plays a comprehensive role in the progress of the country's economy, political civilization, reform and opening up, social civilization, ecological civilization, people's welfare, and national governance efficiency. The following aspects further elaborate on this definition.

The Functions of Intellectual Property Determine Its Potential to Become a Strategic Resource for National Development

The functions of intellectual property refer to its effects or influence on other matters. Based on whether intellectual property can bring about Pareto improvements in benefits, its functions can be categorized into positive and negative. In modern society, intellectual property can perform multiple positive functions. For instance, some scholars summarize these as three aspects: a "rigid demand" for innovation-driven development, a "standard configuration" for international trade, and an organic component of the socialist market economy (Shen, 2019a). Some scholars specifically study the role of intellectual property in innovation-driven development, suggesting that intellectual property acts as a "counselor" for innovation decisions, a "navigator" for the innovation process, a "protector" of innovation outcomes, and a "fighter" in market competition (Chen et al., 2017). Other scholars believe that intellectual property is critical to fostering the nation's core competitive capabilities and the long-term development of the national economy (Han, Zeng, Wang, & Chen, 2020). American scholars also hold similar views on the positive functions of intellectual property. For example, Shubha Ghosh (2004) summarized four functions of patents: a marketing tool for innovative products, reducing information costs in innovation transactions, clarifying the rights and obligations boundaries of various entities within a company regarding its assets, and serving as a regulatory tool for industries and specific technologies. Another American scholar, Mark Lemley (2004), summarized two typical views on the functions of intellectual property within the American intellectual property law community: the ex-ante function of incentivizing innovation and the ex-post function of encouraging intellectual property owners to improve existing products and technologies and further expand investments.

If the positive functions of intellectual property, as posited by these scholars, appear abstract, consulting relevant data and research findings from official reports may be beneficial. For example, in 2016, the United States Patent and Trademark Office (USPTO) released a research report titled *Intellectual Property and the U.S. Economy*. The report notes in its abstract that intellectual property-intensive industries are a significant, integral, and continuously growing part of the U.S. economy. The report identified 81 intellectual property-intensive industries out of a total of 313 industries. In 2014, these intellectual property-intensive industries directly created 27.9 million jobs, an increase of 800,000 from 2010. In 2014, the value added by these industries was \$6.6 trillion, an increase of more than \$1.5 trillion from \$5.06 trillion in 2010. The total exports of goods from intellectual

property-intensive industries increased from \$775 billion in 2010 to \$842 billion in 2014. Correspondingly, the share of these industries in the total U.S. GDP increased from 34.8% in 2010 to 38.2% in 2014. The report also pointed out that in 2014, intellectual property-intensive industries indirectly provided 17.6 million supply chain jobs for the entire economy. Overall, intellectual property-intensive industries directly and indirectly supported 45.5 million jobs, accounting for approximately 30% of all jobs (USPTO, 2016). Economic data from China also demonstrate the extreme importance of intellectual property for economic and social development. The "2019 National Patent-Intensive Industry Value Added Data Bulletin", jointly released by the National Intellectual Property Administration and the National Bureau of Statistics, shows that in 2019, the value added by patentintensive industries nationwide was 11.4631 trillion yuan, an increase of 7.0% over the previous year (not adjusted for price factors), accounting for 11.6% of the Gross Domestic Product (GDP). According to the 2020 National Intellectual Property Services Industry Statistical Survey Report compiled by the Intellectual Property Services Industry Statistical Survey Report Compilation Group, as of the end of 2019, there were about 820,000 employees in China's intellectual property services industry, an increase of 2.6% compared to the end of 2018, showing a significant role in job creation. Nationwide, institutions engaged in intellectual property services generated over 210 billion yuan in operating income, a year-on-year increase of 13.2% (Intellectual Property Service Industry Statistics Survey Report Writing Group, 2020). These abstract or specific pieces of evidence demonstrate the intellectual property's positive functions in social and economic development. The positive functions of intellectual property also manifest in many other aspects, such as promoting the development of the cultural industry, international exchanges and cooperation, and even national security, and international competitiveness (Shen, 2020; Cao & Xian, 2020).

According to the Marxist dialectical materialism law of the unity of opposites, intellectual property's negative and positive functions form a contradictory unity. While analyzing the positive functions of intellectual property, we must not ignore its negative functions. For instance, some scholars argue that if too many intellectual property rights are granted over a specific item. Many private owners separately hold these rights, and it can lead to an "anti-commons tragedy", resulting in a decrease in overall social welfare (Depoorter & Parisi, 2002). Some scholars believe that if patent rights are granted too broadly, resulting in overlapping rights among different private owners, it can create a patent thicket problem, leading to a decrease in overall social welfare (Woolman, Fishman, & Fisher, 2013). Other scholars argue that if overly strong intellectual property protection is implemented without considering the stages of economic development, it may hinder innovation, especially cumulative innovation. Moreover, applying the same level of intellectual property protection without accounting for the innovation characteristics of different industries can also stifle innovation (Burk & Lemley, 2003; Strakosch, 2015). Chinese scholars also point out that if rights holders abuse intellectual property rights, it constitutes unfair competition (Wu, 2020). Intellectual property's positive and negative functions form two sides of the same coin. Although, in theory, the positive functions of intellectual property determine its status as a strategic resource for national development, the negative functions cannot be ignored. The positive functions of intellectual property must be effectively realized if the negative functions of intellectual functions are institutionally addressed. Such a situation underscores intellectual property's second level of meaning as a strategic resource for national development.

An Effective Market and Proactive Government Construction Are Fundamental Conditions and Guarantees for Intellectual Property to Become a Strategic Resource for National Development

Suppose intellectual property's function determines that it can become a strategic resource for national development. In that case, essential conditions must be met to harness its positive function effectively and overcome its negative function. Summarizing the experience since the implementation of the "National Intellectual Property Strategy Outline", this essential condition is constructing an effective market in the intellectual property field. The foundation of an effective market is that intellectual property is an economically valuable property right and an important element of economic development. The market must play a decisive role in resource allocation, ensuring the optimization and maximization of intellectual property scale and utility through a favorable market environment. The market must play a decisive role in resource allocation, ensuring the optimization and maximization of intellectual property scale and utility through a favorable market environment. Formally, an effective intellectual property market is composed of six systems: the market element system, the organizational system, the legal system, the regulatory system, the environmental system, and the market infrastructure system (Qi & Zhang, 2022). Substantively, an effective intellectual property market is a mature, well-coordinated, institutionally complete, and functionally sound system. Only within an effective market system can intellectual property maximize its functions and thus become a strategic resource for national development. However, the question arises: How can we establish an effective intellectual property market? Theoretically, there are two paths to change: the first is spontaneous or induced institutional change, mainly built by private entities such as businesses and individuals who create and operate intellectual property; the other is compulsory institutional change, primarily initiated or guided by the government (Lin, 2020, p. 289). The experience since the reform and opening up, especially since the implementation of the "National Intellectual Property Strategy Outline", shows that the Chinese government has creatively proposed the vital concept of an "intellectual property governance system" (Shen, 2019b). This concept involves the government taking the lead and fully utilizing the advantages of the government, market, and various social entities to build and maintain an effective intellectual property market jointly (Qi, 2021a).

In the field of intellectual property, a proactive government is characterized by the rule of law, transparency, service orientation, innovation, and competition, which refers that the government within the framework of the rule of law and in the role of a service provider rather than a manager, leads proactively openly and transparently. It takes into account domestic and international economic and technological development trends, as well as new tasks and challenges facing intellectual property. The government comprehensively and systematically participates in intellectual property research, application, management, transaction, and transformation processes and willingly accepts public and judicial supervision. Analyzing proactive government construction in intellectual property from a functional perspective, the government should perform both macro and micro functions. The former refers to the State Council and its intellectual property management departments representing the country in top-level design for developing the intellectual property industry and establishing and improving a unified national intellectual property governance system. Based on national top-level design and local realities, local governments and their intellectual property management departments establish and improve intellectual property governance systems within their jurisdictions. The latter refers to the State Council and its intellectual property management departments representing the country in cooperation, negotiations, exchanges,

and even competition with other countries regarding the development of the intellectual property industry. Local governments and intellectual property management departments represent their regions, cooperate, exchange, and compete with other regions' governments and intellectual property management departments. The fundamental reason why a proactive government guarantees that intellectual property can become a strategic resource for national development lies in its ability to use the rule of law and legal thinking to ensure the proper use, development, organization, and coordination of the intellectual property industry, which ensures the formation of an effective market and a useful society for intellectual property, maximizing its potential.

In practice, in recent years, the State has successively introduced plans, schemes, and guidelines such as the "Outline of the National Innovation-Driven Development Strategy", the "Pilot Program for Comprehensive Intellectual Property Management Reform", the "Opinions of the State Council on Accelerating the Construction of a Strong Intellectual Property Nation under New Circumstances", the "Action Plan for the Implementation of the National Intellectual Property Strategy (2014-2020)", and the "14th Five-Year Plan for National Intellectual Property Protection and Utilization", achieving remarkable results. According to the "2020 Global Innovation Index Report" released by the World Intellectual Property Organization, China ranked 14th, leading middle-income economies. The "2021 Global Innovation Index Report" showed that China's ranking rose by another two places, making it one of the fastest-progressing countries in the world, with indicators such as patent, trademark, and industrial design applications ranking first globally (Shen, 2021a). The intellectual property sector's practical development and historical achievements vividly demonstrate the importance of a proactive government in intellectual property.

The Construction of a Useful Society Is an Important Support for Intellectual Property to Become a Strategic Resource for National Development

The "society" in the field of the intellectual property mainly refers to the agencies and legal institutions engaged in intellectual property services and their industry associations. They primarily provide services related to patents, trademarks, copyrights, trade secrets, new plant varieties, and other intellectual property, including intellectual property agency, legal services, information, consulting, commercial use, training, and other services. They manage themselves by the law and are subject to the guidance and supervision of competent authority. In 2012, nine departments, including the State Intellectual Property Office and the Ministry of Science and Technology, jointly issued the "Guiding Opinions on Accelerating the Cultivation and Development of the Intellectual Property Service Industry", providing an essential basis for the healthy development of the intellectual property service industry. Developing a useful society in the field of intellectual property can provide significant support for intellectual property to become a strategic resource for national development. Theoretically, there are four main criteria for measuring a useful society intellectual property: First, professionalism. Whether it is agency services for intellectual property applications, registration, review, and opposition, providing legal services for intellectual property in corporate activities such as listing, mergers and acquisitions, liquidation, and investment and financing, or providing information services such as intellectual property information retrieval and analysis, data processing, database construction, software development, and system integration, as well as commercial services such as intellectual property evaluation, value analysis, transactions, pledges, investment and financing, operations, and custodianship, all involve highly complex professional knowledge in law, technology, information, and commerce. Intellectual property service agencies and their staff need to master humanities and social sciences knowledge such as economics, management, law, and literature and have a background in science and engineering, especially in disciplines such as physics, chemistry, biology, and materials engineering. Second, keeping pace with the times. Keeping pace with the times is a forward-looking development based on professionalism. Intellectual property service agencies and their staff must continuously adapt to the intellectual property technology, legal, economic, and management issues in new industries and fields characterized by new developments, business forms, dynamics, models, and directions (Han et al., 2020), especially being able to quickly respond to the complex and unique intellectual property protection challenges faced by these particular industries. Moreover, intellectual property service agencies can continuously update their knowledge systems to adapt to significant changes brought by new science and technology to intellectual property objects, identification, and evaluation standards and can quickly respond to new intellectual property challenges in high-tech fields such as bioinformatics, biotechnology, artificial intelligence, biochips, and genetic engineering (Fernandez & Chow, 2003); They can quickly understand and respond to significant policy measures, projects, and engineering initiatives introduced by the State in intellectual property. They can effectively adapt to primary reform measures and policy adjustments in intellectual property, especially those institutions and personnel engaged in high-end services such as intellectual property strategy, policy, management, and practical consulting. Third, internationalization. Intellectual property service agencies and their staff can deeply understand intellectual property as a "standard configuration" in international trade and the new requirements for their quality in the construction of a robust intellectual property nation in the context of internationalization, forming an "endogenous motivation" for continuously improving the level of internationalization; They can be familiar with international intellectual property laws, rules, and agreements, especially the intellectual property legal systems and trade rules of major trading partners such as the countries along the "Belt and Road", ASEAN, the EU, and the United States; They can provide enterprises with intellectual property international layout, overseas intellectual property rights protection, participation in intellectual property multilateral framework agreements or issue negotiations, proposing "China issues" and "China solutions", and assist enterprises in the "going global" strategy; They can participate in international intellectual property cultural exchanges and talent training, and promote and introduce the value, laws, and concepts of China's intellectual property protection to the international community. Fourth, specialization. Intellectual property service agencies and their staff, based on their resource endowments and talent advantages, choose a specialized development path, deeply cultivate one or several fields such as intellectual property agency services, legal services, information services, commercialization services, consulting services, and training services, create brand characteristics, and provide high-quality services.

The three aspects above constitute the fundamental meaning of intellectual property as a strategic resource for national development, transforming it from a policy "expression" with unclear connotations to a "concept" with interpretative, analytical, predictive, constructive, and even critical functions. It is not difficult to find that we interpret its meaning from the perspectives of "what it is" and "how it can be", deeply exploring the profound implications of this concept, thus providing a reliable and innovative thinking tool for the development of intellectual property jurisprudence and the improvement of intellectual property legal systems.

The Important Value of Intellectual Property as a "Strategic Resource for National Development" for Intellectual Property Law Research

Intellectual property is regarded as a "strategic resource for national development", which represents a new understanding of its essential nature by the Chinese government in response to significant changes in international and domestic situations. This endows intellectual property with a new era connotation, and this understanding has led to the grand and effective construction of the intellectual property system (Lin, 2020, p. 290).² The new understanding will inevitably profoundly impact the research of intellectual property jurisprudence in China and holds significant value.

It Helps to Move Beyond the Debates Among Intellectual Property Law Scholars Regarding the Essential Nature of Intellectual Property, Thus Allowing a More Abstract and Macro Perspective on Intellectual Property

The essential nature is the unique attribute determining why intellectual property is intellectual property, not something else. Reviewing more than 40 years of intellectual property law research in China, it is evident that the essential nature of intellectual property has always been a contentious issue in academia. Various academic viewpoints have emerged on this issue, including the "private right theory", "new civil rights theory", "publicized private right theory", and "fusion of public and private rights theory" (Li & Lü 2004; Wu, 2005; Sun & Dong, 2007). Scholars with different views on the essential nature of intellectual property engage in heated discussions by writing academic papers and holding academic conferences, sometimes presenting opposing viewpoints (Yi, 2007; Yu, 2012). While this endless debate has undoubtedly contributed to the advancement of intellectual property academic research, it inevitably leads to academic bubbles. More importantly, this endless debate has dramatically influenced the differing perceptions of the intellectual property system's positioning and the roles of various state agencies, especially the intellectual property administrative authorities and the people's courts, significantly impacting the practice of intellectual property law. From a logical perspective, concepts are merely thinking tools that help people interpret the world and, thus, better transform it. Confronted with new technologies and new developments and situations of the era, the traditional "private right theory" of intellectual property indeed faces the embarrassing situation of being unable to explain new practical experiences of intellectual property, and thus, it struggles to guide intellectual property practice. Consequently, some scholars have proposed new perspectives on the essential nature of intellectual property, such as the "publicized private right theory" or the "fusion of public and private rights theory" (Feng & Liu, 2004). However, these new perspectives also face many difficulties and have been criticized by some scholars for potentially causing a series of harms, such as providing a legal excuse for the illegal intervention of administrative power in private rights, leading intellectual property theoretical research in the wrong direction, and representing a regression in the concept of private rights (Yu, 2012). Indeed, the understanding of the essential nature of intellectual property seems to have reached an impasse among intellectual property law scholars, even leading to a game of semantics with expressions such as "clear distinction between public and private", "non-private means public", "integration of public and private",

² Institutions are means by which humans aim to handle future uncertainties and enhance individual utility. They are a set of behavioral norms followed by members of society. In this sense, the intellectual property rights system can be both a market institution and a non-market institution, as well as a policy-based institution or a legal-based institution.

"private as dominant, public as auxiliary", "both public and private", and "public as the main role, private as the supporting role" emerging one after another.

We need to find a more considerable common ground to break this impasse. The introduction of the new concept of intellectual property as a "strategic resource for national development" can resolve this deadlock, injecting new vitality into intellectual property law research and enriching it with contemporary significance. This concept incorporates and enhances the reasonable core of theories like the "private right theory" or the "publicized private right theory" while discarding their negative aspects. Consequently, it offers greater explanatory power, predictive ability, constructive capacity, and even some critical function compared to the theories above. It maintains the private nature of intellectual property, centering on the individual interests of rights holders (Zhu, 2008). It does not advocate for the state to own, use, or dispose of intellectual property arbitrarily, nor does it support unwarranted state intervention in creating and using intellectual property by market entities. However, it does assert the need to define intellectual property from a static, individual perspective and a dynamic, holistic perspective. The dynamic perspective of intellectual property indicates that, although viewed statically, intellectual property is a right prescribed by the Civil Code and an exclusive right enjoyed by the rights holder; acquiring an intellectual property right is merely a means. The key is how the rights holder can effectively utilize the intellectual property, how to convert intellectual achievements into productivity through personal use, licensing others, and transferring rights, and how to transform the intellectual property into market-allocated resources, i.e., the commercialization of intellectual property, and on this basis, combine intellectual property with other resources to form industrial chains or even industrial clusters. In the process of utilizing intellectual property rights, it possesses functions or characteristics different from ordinary civil rights; it affects unspecified market entities and public interests, relates to the economic and social development of a region and a country, and even impacts national security, exhibiting strong social and public attributes. Intellectual property becomes rights closely tied to the country's politics, economy, trade, finance, culture, science and technology, and even national security. At this point, intellectual property is no longer a private affair but a resource impacting the nation's and society's significant public interests. Promoting the utilization of intellectual property and enhancing innovation efficiency involves various systems and requires the participation of multiple entities, particularly rational guidance and lawful management by the state represented by the government. The holistic meaning of intellectual property refers to the quantity, quality, and structure of a country's intellectual property, as well as the overall effectiveness of its utilization, which concerns not only the individual interests of intellectual property rights holders but also the overall interests of the country, determining its international competitiveness. As pointed out in the "United States Joint Strategic Plan on Intellectual Property (2020-2023)" released by the U.S. government on January 11, 2021, intellectual property affects the innovative economic destiny of the United States. It has become an essential resource for maintaining its competitive advantage (The White House, 2020). Therefore, ensuring that a country has a large quantity of high-quality, well-structured intellectual property and that the intellectual property obtained by market entities can form control over critical links such as industrial chains, technology chains, product lines, and market regions is not just private. It is a matter that requires the participation of multiple entities, and the state represented by the government will also play an important role.

It is not difficult to see that the new concept of intellectual property as a "strategic resource for national development" is a "sublation" of theories like the "private right theory" or the "publicized private right theory"

of intellectual property. Aside from the substantive arguments previously explained, the reason it has this function can also be understood from a formal perspective. In terms of semantics, the term "strategic resource" can encompass both individual and static intellectual property and overall and dynamic intellectual property. It can include intellectual property in the "private right" sense and reflect intellectual property in the "public right" sense. This is determined by the term "strategic resource", having a vibrant extension and relatively abstract connotation. Therefore, this new concept can inherit the positive aspects of existing theories on the nature of intellectual property and overcome their negative aspects. This can be seen as a vivid embodiment of the basic principles of Marxist dialectical materialism in the study of intellectual property law. It provides intellectual property law scholars with a more abstract and macro perspective to reconsider the essential attributes of intellectual property.

It Helps Intellectual Property Law Scholars Gain a More Comprehensive Understanding of the Essence, Adjustment Objects, and Functions of Intellectual Property Law, Thereby Determining the Disciplinary Positioning and Research Paradigms of Intellectual Property Law More Rationally and Promoting Research on Autonomous Chinese Intellectual Property Law

What is the essence of intellectual property law, its adjustment objects, and its essential functions? How should the status of intellectual property law within the entire field of legal studies be determined? What research paradigms should be followed when researching intellectual property law? Scientifically answering these four questions can not only produce a large number of research results on intellectual property law that address Chinese issues, reflect Chinese autonomy, and meet world standards with intellectual independence and theoretical confidence but also effectively advance the strategy of building a Leading Country in Intellectual Property. After all, research on intellectual property law undertakes the crucial tasks of providing solid theoretical support for the development of the intellectual property field, offering scientific, intellectual support for the construction of intellectual property legal systems, providing critical intellectual achievements for building international soft power in intellectual property (Wu, 2015) and equipping the new generation of intellectual property law scholars with fundamental knowledge. However, if we reflect on the research of mainstream intellectual property law scholars on these four fundamental questions, we can find views such as: Intellectual property law is general civil law (Liu, 2003). Intellectual property law and civil law are part-whole relationships (ECIPL, 2020, p. 17). Intellectual property law is part of civil law (Wu, 2020, p. 30). The holistic concept of intellectual property law is determined by civil law at its core (Li, 2006). Intellectual property law follows the private law research paradigm and belongs to the special laws of civil law (Li, 2020). According to the research views of mainstream intellectual property law scholars, the essence of intellectual property law is private law. Its adjustment objects are personal and property relations between equal subjects. Its primary function is to protect the private interests of the intellectual property rights holders. Its disciplinary positioning is as special or general law within civil law, and intellectual property law scholars need to adhere to the research paradigms of private law, especially civil law. As an authoritative intellectual property law scholar pointed out, "If civil law, norms and, systems are removed, and if it deviates from the concepts, guiding thoughts, theoretical foundations, and basic principles of civil law, the intellectual property system will be unrecognizable and unsustainable." (Liu, 2003, pp. 118-119). Undoubtedly, the research conclusions of mainstream intellectual property law scholars are based on the essence of intellectual property, which includes private rights, civil rights, and private matters. It cannot be denied that the academic and ideological sources of these research conclusions mainly come from the intellectual property law studies of Western countries, represented by the United States. However, these research conclusions of mainstream intellectual property law scholars actually cannot explain, let alone predict, the governance practices with far-reaching impacts and remarkable achievements that the state has carried out in the field of intellectual property, at least since the implementation of the "National Intellectual Property Strategy Outline" in 2008 (Qi, 2020).

The concept of intellectual property as a "strategic resource for national development", a notion with distinctive Chinese contemporary characteristics, will undoubtedly challenge the views of mainstream intellectual property law scholars. Especially in the context of the Party Central Committee and President Xi Jinping, who repeatedly emphasized the need to accelerate the construction of a Chinese autonomous knowledge system in philosophy and social sciences, including intellectual property law, this new concept highlights its academic value even more. In the author's view, the intellectual property law system constructed on this new conceptual foundation will offer numerous new perspectives on the four fundamental issues mentioned above: Instead of defining the essence of intellectual property law as private law or civil law, it is better to define it as "sectoral law" (Liu, 2016)—directed towards fully leveraging intellectual property as a strategic resource for national development and encompassing all legal norms related to the field of intellectual property. Rather than viewing intellectual property law as a law regulating personal and property relationships between equal subjects arising from the creation or use of intellectual achievements (Wu, 2020, p. 30), it should be seen as a set of legal norms regulating the behaviors of various subjects, including the state represented by the government, intellectual property market entities, and intellectual property social entities in the fields of creation, protection, utilization, management, service, and international cooperation of intellectual property. Instead of positioning its primary function as protecting the "private interests" of intellectual property holders, it should be anchored in regulating multiple interest relationships (Ghosh, 2004; Masur, 2010)³—ensuring, promoting, regulating, adjusting, restricting, controlling, and guiding—while balancing the public interests represented by the state and society, and the private and industry interests represented by intellectual property market entities and social entities. Instead of determining the academic positioning of intellectual property law within the civil law discipline, it should be regarded as an interdisciplinary subject. Instead of studying intellectual property law through the private law paradigm, particularly the civil law paradigm, it should be studied using an interdisciplinary research paradigm aimed at integrating and advancing effective markets in the intellectual property field, an active government, and a supportive society.

Viewing intellectual property law from this new perspective means that it is a problem-oriented, practice-oriented field that will be built and developed around the fundamental question of "how to optimize the utilization of intellectual property as a strategic national resource". Its scope of regulation shifts from "relationships"—personal and property relationships arising from the creation and use of intellectual property by equal subjects—

³ In intellectual property law, particularly in patent law, the term "regulate" or "regulation" encompasses various meanings, such as safeguarding, promoting, standardizing, adjusting, limiting, controlling, maintaining, and guiding. Scholars who introduce regulatory theory into the field, viewing the fundamental function of patent law as regulation, are led by the American scholar Shubha Ghosh.

to "actions"—the behaviors of multiple subjects in the creation, protection, utilization, management, service, and international cooperation of intellectual property. Its primary function is no longer limited to regulating and protecting private interests but extends to promoting and safeguarding national and societal public interests. The knowledge base of intellectual property law will no longer be confined to private law, especially civil law. However, it will fully integrate insights and research findings from management, economics, public law, policy studies, engineering, and science. As intellectual property law scholars, we must consciously apply doctrinal legal knowledge, using legal thinking and methods to proactively develop an independent intellectual property law system distinct from purely political, policy, and management discourses, with a specific logical structure that reflects Chinese characteristics and global standards.

New Requirements for the Construction of Intellectual Property Rule of Law

The above analysis shows that the proposal and establishment of the new concept of "intellectual property as a strategic resource for national development" has significant value for intellectual property law research. However, its significance extends beyond theoretical research and poses new requirements for constructing China's intellectual property rule of law. Historically, the contemporary intellectual property rule of law in China began in the early days of reform and opening up, evolving alongside the growth of the socialist market economy. China's intellectual property legal system is based on the Constitution, with the Civil Code as its foundation. It primarily comprises laws and administrative regulations such as the Copyright Law, Patent Law, Trademark Law, Anti-Unfair Competition Law, Regulations on the Protection of Computer Software, and Regulations on the Protection of New Varieties of Plants.

Nevertheless, the current intellectual property legal system exhibits significant imbalances: an emphasis on fragmented legislation over comprehensive legislation, legislation focused on market development that centered on government and societal development, and legislation aimed at expanding the scale of intellectual property over that promoting its effective utilization. One major reason for these imbalances is the underdevelopment of the theoretical foundation of intellectual property law. Mainstream intellectual property law scholars have attributed intellectual property to civil rights, aligning it closely with civil law, categorizing intellectual property law within the field of civil law, and developing intellectual property theory based on civil rights theory. They attempt to develop their theoretical framework through civil law theory, believing that:

the creation, exercise, and protection of intellectual property should apply the basic principles and systems of civil law. Without the civil rights system, intellectual property would be like water without a source or a tree without roots, unable to find its rightful place. (Wu, 2013, p. 11)

Nonetheless, this approach obscures the distinctions between intellectual property and civil rights, lacks a rational understanding of the unique attributes of intellectual property law, and fails to recognize the relationships between government, market, and society in intellectual property. As a result, intellectual property law remains in a state of "searching for itself" (Long, 2016). Essentially, "intellectual property as a strategic resource for national development" is a new notion that has emerged from China's intellectual property practices since the reform and opening up, particularly since the implementation of the National Intellectual Property Strategy Outline. It transcends and sublates the "private right theory" and the "public right theory" of intellectual property.

Introducing this new concept will pose a series of new requirements for constructing the intellectual property rule of law in China. It will reshape the landscape of China's intellectual property legal system.

It Is Necessary to Position the Government Function Reasonably and Positively and Increase the Supply of Administrative Law in the Field of Intellectual Property

While establishing an effective market and a beneficial society is a basic prerequisite and essential supports for intellectual property to become a strategic resource for national development, they can only be achieved with proactive government construction. The latter serves as both the fundamental guarantee for intellectual property to become a strategic resource for national development and the critical safeguard for the functioning of the former two. Therefore, intellectual property law must address the issue of how to position government functions reasonably. In this regard, mainstream intellectual property law scholars in China, based on the premise that intellectual property is a civil right and a private matter, believe that the positioning of government functions in intellectual property law mainly involves administrative enforcement in terms of authorization and relief (ECIPL, 2020, pp. 9-10), which positions government functions in a negative sense. As a strategic resource for national development, intellectual property requires a positive positioning of government functions. Administrative law in the field of intellectual property needs to focus on stipulating at least six categories of proactive government functions.

Planning function. In normative terms, the planning function is the authority enjoyed by state administrative organs to comprehensively set administrative goals and formulate action plans for developing the intellectual property industry according to the law. In China, the performance of intellectual property planning functions by administrative organs has a long history and significant importance. There are various forms of administrative planning in the field of intellectual property. The "Outline of Building China into a Strong Intellectual Property Country (2021-2035)" issued in 2021 is a long-term plan for developing intellectual property. The intellectual property protection and utilization plan issued by the State Council every five years is mediumterm, such as the "14th Five-Year Plan for National Intellectual Property Protection and Utilization". In addition to the State Council, the national intellectual property administrative authorities and local governments also perform the administrative planning functions of intellectual property. In January 2022, the National Intellectual Property Administration issued the "14th Five-Year Plan for Intellectual Property Public Services", while local governments issued their respective "14th Five-Year Plans for Intellectual Property Development". However, current intellectual property laws in China hardly address issues such as the normative basis for the performance of this important function by administrative organs, how to ensure that administrative organs perform planning functions scientifically and rationally, whether administrative organs should bear legal responsibility if planning goals are not achieved, as well as other related concerns. Either these issues are adjusted by policies or regulated by administrative organs' "three determinations" plans, and some even fall within the discretionary power of administrative organs. To further enhance the legitimacy and effectiveness of administrative organs in performing intellectual property planning functions and ensure that various intellectual property plans achieve their administrative goals on schedule, administrative law needs to specify the basis for administrative organs at all levels to perform different types of planning functions, as well as the corresponding legal procedures. Specifying

the participation procedures for the intellectual property market and social entities, the assessment and evaluation mechanisms for administrative organs, and the regular evaluation mechanisms for various plans is imperative.

Guidance function. In normative terms, the guidance function is the flexible administrative power exercised by administrative organs by the law over intellectual property market entities and social entities to guide them in implementing corresponding behaviors to achieve administrative objectives voluntarily. Due to the variability of intellectual property policies and legal norms, as well as the complexity of intellectual property itself, which combines technology, law, and policy, administrative organs have an advantage over intellectual property market entities and social entities in grasping intellectual property information and policies. Therefore, administrative guidance can effectively guide the intellectual property market and social entities' behavior to achieve specific administrative objectives. In China, administrative organs often fulfill their guidance functions in various fields through suggestions, guidance, instruction, and encouragement. For example, the "14th Five-Year Plan for National Intellectual Property Protection and Utilization" stipulates guiding and regulating intellectual property transactions and guiding localities in formulating catalogs for nurturing patent-intensive industries.

Another example is the "Notice of the Jiangsu Intellectual Property Office on Deepening the Construction of Intellectual Property Service Agglomeration Development Zones", which guides service institutions within the zones to research and develop new service products related to intellectual property pledge loans, insurance, securitization, as well as other related services. Although administrative organs perform many administrative guidance functions to promote intellectual property development, if measured against the basic requirements of a rule of law government, many improvements are needed to enhance the effectiveness of administrative guidance. Specifically, administrative law in the field of intellectual property needs to specify the specific administrative organs responsible for performing administrative guidance functions, establish evaluation mechanisms for intellectual property market entities and social entities to assess the performance of administrative organs in providing guidance, specify the methods and approaches for administrative organs to fulfill guidance functions, and establish systems for the disclosure and accountability of administrative guidance.

Supportive function. In normative terms, the supportive function is the administrative power exercised by administrative organs by the law to assist intellectual property market entities and social entities in better creating, utilizing, and managing intellectual property through means such as tax reduction or exemption, financial subsidies, administrative rewards, and preferential policies. The performance of the supportive function by administrative organs is not only to compensate for the late start and immature development of China's intellectual property market but also to catch up with developed countries in intellectual property, such as the United States, the United Kingdom, and Japan. Many current policy documents related to intellectual property stipulate this function of administrative organs. For example, the "Opinions of the State Council on Accelerating the Construction of an Intellectual Property Strong Country under the New Situation" stipulates guiding social capital to invest in intellectual property-intensive industries and supporting enterprises to use intellectual property for overseas equity investment. Although the performance of the supportive function by administrative organs has dramatically promoted the healthy development of intellectual property, attention should also be paid to its drawbacks, such as exacerbating the imbalance in intellectual property development among regions, rent-seeking corruption, low efficiency in the use of fiscal funds, unsustainability, uneven benefits from supportive policies,

and redundant construction (Chen, 2016). Such issues can be addressed by administrative law intellectual property, which can play an important role. It can specify the types, methods, and scope of the supportive functions exercised by administrative organs of different levels and types, stipulate that administrative organs should follow principles of transparency, fairness, and effectiveness when performing this power, and establish corresponding systems to implement such principles. It can also prescribe that relatively independent third parties should regularly evaluate the effectiveness of administrative organs' supportive policies or measures. Moreover, it can also provide the legal responsibilities that administrative organs should bear for illegal acts, such as administrative inaction and misconduct while performing the supportive function.

Information disclosure function. Normatively, the information disclosure function is the authority of administrative organs to proactively disclose to the public the information they create or obtain during intellectual property authorization, administrative services, law enforcement, and administrative management activities and to record and store this information in a specific format. As in other areas of administrative management, the performance of the information disclosure function by administrative organs in the intellectual property field is of particular significance, particularly in disclosing information obtained during authorization activities to the public. This can accelerate the innovation process, facilitate the transfer and transformation of intellectual property, and make intellectual property, especially patent information, more quickly accessible to ordinary technical personnel in the field, thereby maximizing its informational value (Asay, 2016). Furthermore, disclosing information obtained during law enforcement activities, such as violations of exclusive rights to registered trademarks and invention patents, helps curb the frequent occurrence of intellectual property infringements. However, in practice, the performance of administrative organs in fulfilling their information disclosure function in the intellectual property field needs improvement. One important reason is the insufficient legal framework in this field, mainly governed by policy documents. For instance, the "Opinions on Accelerating the Construction of an Intellectual Property Strong Country under the New Situation" stipulates strengthening the openness and utilization of intellectual property information. The 2020 Amendment to the Patent Law adds Article 21, Paragraph 2, which stipulates that the State Council's patent administrative department shall publish patent information completely, accurately, and promptly, provide basic patent data, regularly publish patent bulletins, and promote the dissemination and utilization of patent information. This provides a legal basis for the administrative organs to disclose information in the patent field. Subsequently, the State Council's patent administrative department needs to issue detailed information disclosure guidelines specifying the channels, methods, and procedures for disclosing patent information and corresponding remedies. For other intellectual property fields, the legislative or administrative organs should also promptly formulate administrative laws or issue information disclosure guidelines to ensure that administrative organs fulfill their information disclosure function lawfully, timely, and accurately.

The function of building public infrastructure to promote intellectual property development. The authority of administrative organs to lawfully construct public infrastructure is to promote effective market and useful society development in the intellectual property field, ensuring the healthy development of intellectual property endeavors. According to scholars who assert that intellectual property is a "private right" and a "private matter", government investment or the use of social capital to build public infrastructure to promote intellectual property development might seem an "overreach". However, when intellectual property has been elevated to the

status of a strategic resource for national development, the exercise of this function by administrative organs is highly justified. The basis for administrative organs performing this function stems from various policies. For instance, the "14th Five-Year Plan for Intellectual Property Public Services" stipulates that the Public Service Department of the State Intellectual Property Office will lead the construction of the National Intellectual Property Big Data Center and the development of intelligent new infrastructure for intellectual property information utilization.

Another example is the "Management Measures for the Demonstration Zone of Intellectual Property Service Industry Cluster Development in Zhejiang Province (Trial)", which assigns the Zhejiang Intellectual Property Office to organize the implementation of the demonstration zone construction. Since the execution of such functions by administrative organs often involves substantial human, material, and financial resources and requires coordination and cooperation among multiple administrative bodies, relying solely on various documents or policies, especially those issued by intellectual property authorities, usually fails to achieve the desired effect and can easily lead to rent-seeking behavior. Administrative law development in the intellectual property field needs to keep pace to provide normative bases for administrative organs to perform such functions.

The function of risk warning. The risk warning function involves administrative organs legally establishing credit records for intellectual property infringement, collecting, organizing, and researching information about the sources of counterfeit products, publishing information on the intellectual property system environments of relevant countries and regions, strengthening the tracking of major intellectual property cases, and promptly issuing risk warnings. These measures aim to deter individuals from infringing on intellectual property, predict risks in advance, and prevent further infringement. The rationale for administrative organs performing the risk warning function lies in the characteristics of intellectual property infringement: high secrecy, rapid spread, difficulty in obtaining evidence, and severe consequences of infringement. Dispersed market entities usually find it challenging to fully grasp risk information, especially overseas market risks. In today's globalized and information-based society, the need for administrative organs to perform this function in intellectual property is particularly urgent. Nevertheless, the legal basis for administrative organs to perform this function, the legal principles and procedures to be followed, and the corresponding legal responsibilities are almost absent in current administrative law. They are only stipulated in relevant policies. For example, the "Opinions on Accelerating the Construction of an Intellectual Property Power under the New Situation" stipulates establishing and improving a warning and prevention mechanism for intellectual property protection. It also calls for establishing a mechanism for collecting information on the sources of counterfeit products to enhance warning and prevention capabilities. While policy initiatives have their advantages, their disadvantages outweigh the benefits in the long run. The six aspects mentioned above are new role requirements for administrative organs in treating intellectual property as a strategic resource for national development. They require proactive actions from administrative organs and pose new demands on constructing intellectual property rule of law. This necessitates that legislative or administrative bodies increase the supply of intellectual property administrative law to ensure that administrative organs can lawfully perform these functions (Qi & Lan, 2022).

There Is a Need to Formulate More Intellectual Property Laws That Express National and Societal Public Interests

As some scholars have pointed out, the current content of intellectual property legislation primarily revolves around the private law rules governing the subjects, objects, contents, and exercises, restrictions, and protections of intellectual property such as copyright, patent rights, and trademark rights, with the emphasis on safeguarding private interests (Li, 2020). However, as intellectual property laws increasingly define government functions and as intellectual property rises as a strategic resource for national development, the current legal framework for intellectual property should specify more legal norms that express public interests, shifting from the current legislative model, "intellectual property +", mainly emphasizing private interests to a model primarily reflecting national and public interests under "intellectual property +", which refers to enhancing intellectual property governance capability and promoting the deep integration of intellectual property with other domains to enhance national and public interests through scientifically allocating the rights and obligations of various subjects such as government, market entities (primarily enterprises engaged in the creation, application, and transformation of intellectual property), and society, thus improving legal systems and norms. Specifically, it mainly includes nine aspects:

- (1) "Intellectual property +" legal systems related to the internet: regulating intellectual property protection and sharing models, intellectual property service models, intellectual property application review models, and intellectual property management and operation models that match the virtuality, openness, and online-offline integration of the internet.
- (2) "Intellectual property +" legal systems related to finance: regulating how intellectual property directly participates in production and business activities and is quantified as capital and value, such as intellectual property investment and financing, pledged loans, financing leases, securitization, crowdfunding, as well as other related aspects.
- (3) "Intellectual property +" legal systems related to industries: regulating ways and methods for deep integration of intellectual property with various industries such as agriculture, manufacturing, strategic emerging industries, creative industries, and services, such as promoting the development of modern agriculture by specifying the joint layout and application of intellectual property such as plant new varieties, agricultural technology patents, agricultural geographical indications, and agricultural product trademarks by agricultural entities such as farmers and agricultural bases.
- (4) "Intellectual property +" legal systems related to trade: specifying the international protection and regional protection systems for both direct⁵ and indirect⁶ intellectual property trade and the system for participating in the formulation and revision of international rules related to intellectual property trade, such as the "Belt and Road" regional intellectual property protection system, the system for overseas intellectual property rights protection and assistance, and promoting the formulation and revision of international rules for intellectual property trade and investment.

⁴ Legislation is carried out around specific types of intellectual property, such as copyright, patent, trademark, geographical indication, trade secret, layout designs of integrated circuits, and new plant variety rights.

⁵ Also known as "narrow intellectual property trade", it refers to trade where intellectual property is the subject matter, including intellectual property licensing and transfer.

⁶ Also known as "broad intellectual property trade", it refers to the trade of intellectual property embedded in goods and services.

- (5) "Intellectual property +" legal systems related to talents: stipulating systems for the development of intellectual property talents, the training of intellectual property talent teams, the improvement of innovative and entrepreneurial abilities, the protection of intellectual property income for talents, and the classification management system for intellectual property talents.
- (6) "Intellectual property +" legal systems related to culture: stipulating systems to strengthen intellectual property cultural construction, ⁷ improve public intellectual property literacy, ⁸ and enhance international exchanges of intellectual property culture.
- (7) "Intellectual property +" legal systems related to science and technology: stipulating systems for fiscal investment in intellectual property creation and attribution, intellectual property management systems in national science and technology plans, intellectual property evaluation systems in science and technology planning, and rapid authorization and confirmation systems for intellectual property in priority areas of scientific and technological development.
- (8) "Intellectual property +" legal systems related to national security: stipulating systems for international intellectual property risk warning and emergency response, examination systems for intellectual property transfer involving national security, independent research, and protection systems for key core technologies related to national security, and dispute resolution systems for overseas intellectual property disputes (Shen, 2021b).
- (9) "Intellectual property +" legal systems related to artificial intelligence. With the advent of artificial intelligence, legislators should promptly stipulate legal systems related to "intellectual property +" artificial intelligence, such as using artificial intelligence to assist administrative agencies in implementing authorization and confirmation (Rai, 2019), administrative law enforcement, and administrative adjudication.

The nine aspects of legal systems above will encompass the creation, utilization, protection, management, services, international cooperation, and talent cultivation related to intellectual property. From an objective standpoint, these legal systems will also better promote the creation and utilization of intellectual property by market entities, thereby enhancing their private interests. However, they are more focused on safeguarding and promoting national and societal public interests, specifying how the government can build an effective market and useful society, and detailing how to play its role better, especially concerning the "intellectual property +" legal systems related to national security. The theoretical foundation is that intellectual property is a strategic resource for national development. Because intellectual property is not merely a private exclusive right or a private matter of market entities but is related to high-quality development, the well-being of people's lives, and the overall situation of national openness (Xi, 2021), it is a strategic resource for national development. Therefore, the government and society have reasons for active action. Formulating more intellectual property laws that express national and public interests provides a normative basis for government, society, and market activities.

The Need to Formulate Fundamental Intellectual Property Laws in Public Law

With the Civil Code stipulating intellectual property as exclusive rights in Chapter V, "Civil Rights" Article 123, some scholars predict that an era of intellectual property law with a purely private law research paradigm

⁷ For example, establishing a system for intellectual property publicity work led by the government, supported by the media, and widely participated in by the public.

⁸ For example, intellectual property-related courses have been introduced in institutions of higher learning, and intellectual property education has been incorporated into the quality education system for students in colleges and universities.

has arrived and called on the intellectual property law community to strive for this (Li, 2020). However, the Civil Code does not establish an independent intellectual property section in its specific provisions, only briefly specifying the types of intellectual property, which undoubtedly shows the legislators' stance: intellectual property law involves many public law systems. It is incompatible with the Civil Code's private law nature. Legislators' stance presupposes a fact: intellectual property is regarded as exclusive rights in legal texts or as private rights by mainstream scholars, and it cannot fully explain and predict the rich practice of intellectual property rule of law in China. As a strategic resource for national development, intellectual property can explain and predict the behavior of market entities and government and social organizations. Intellectual property law needs to positively position government functions and enhance the supply of administrative law in intellectual property. Legislators should formulate more intellectual property laws that express national and public interests. These are specific requirements of this new concept. The concept of fundamental intellectual property laws first appeared in the "National Intellectual Property Strategy Outline" implemented in 2008. The "Opinions on Strengthening Intellectual Property Protection" specifically stipulates the need to study the necessity and feasibility of formulating fundamental intellectual property laws. The "Ten-Year Evaluation Report on the Implementation of the National Intellectual Property Strategy Outline" states that "formulating fundamental intellectual property laws is an inevitable requirement for the development of the cause of socialism with Chinese characteristics in the new era." (National Intellectual Property Strategy Outline Implementation Ten-Year Evaluation Working Group, 2019, p. 91). The "Outline for Building an Intellectual Property Power (2021-2035)" further clarifies the need to "research fundamental intellectual property laws" (Oi, 2009; Zhang, 2017, pp. 1-13; Fang et al., 2014; Dong & Ma, 2020). However, regarding the essential attributes of the fundamental intellectual property laws, such as value orientation, regulatory objects, basic principles, and leading purposes, opinions among intellectual property law scholars are divergent and inconclusive. For instance, some scholars believe that this law should take "protection of rights" as the main line and uphold the principle of the sanctity of private rights (Zhang & Zhao, 2018). They argue that the nature of this law is a special law of the Civil Code, an implementation of the Civil Code's intellectual property provisions, and a summary of special civil law systems (Zhang, 2017, p. 3). Other scholars believe this law should adopt a "comprehensive code" form. From a normative attribute perspective, it includes private and public law norms, forming a collection of mixed norms. Regarding value goals, it integrates innovative order, rights manifestation, and systematic governance (Dong & Ma, 2020). Some scholars believe that this law is a private law that uniformly adjusts and regulates the control relationships of intellectual property (Oi, 2009).

Scholars' differences in views on this law's fundamental attributes are primarily due to differences in their understanding of intellectual property's essential nature. Scholars who view fundamental intellectual property law as private law, a special law of the Civil Code regulating intellectual property relationships and protecting private rights, actually base their perspective on intellectual property as private rights, particularly as civil rights. On the other hand, scholars who see this law as a hybrid of public and private law, with order and rights as value goals, base their perspective on the theory of the publicization trend of intellectual property. However, neither the private rights and civil rights theory of intellectual property nor the publicization trend theory can fully explain the practice of intellectual property rule of law in China. As a strategic resource for

national development, intellectual property is derived from the practice of intellectual property rule of law in China. It transcends the private rights or civil rights theory and the publicization trend theory of intellectual property. This concept can provide a new rational basis for reinterpreting the fundamental attributes of intellectual property laws.

The regulatory subjects of the foundational intellectual property law are the activities of multiple entities, including the government representing the state, the market, and society, in the entire chain of creation, protection, utilization, management, service, international exchange and cooperation, and talent cultivation in the field of intellectual property. It focuses on constructing systems that build a proactive government, an effective market, and a useful society in intellectual property and on coordinating the integration between them (Qi & Zhang, 2022). Its value orientation is to enhance intellectual property governance capabilities, ensure deep integration of intellectual property with other fields, and maximize the scale and efficiency of intellectual property protection and promotion. It aims to legalize the government's proactive role by focusing on regulating government behavior, providing a legal basis for its actions, and fully utilizing its role in the entire intellectual property chain to maintain and enhance national and social public interests. It is not a special law of the Civil Code, nor a hybrid of public and private law, but a public law. It does not simply list the public law norms in the current intellectual property law system but rather provides a comprehensive, overarching, and forward-looking framework, addressing gaps and guiding future developments. It will comprehensively summarize the successful experiences formed by the numerous public policies and measures introduced by the Chinese government to advance the national intellectual property strategy and build an intellectual property powerhouse, including many reforms in intellectual property administrative management systems and mechanisms, and fully absorb the essence of various notices, plans, regulations, and reform systems issued by the government to promote the development of the intellectual property industry. It will consciously be placed within the strategic context of the "dual circulation" development paradigm, creating new systems that can enhance the intellectual property governance system and capabilities to help accelerate the construction of the new "dual circulation" development paradigm (Xi, 2021). It will lead the basic procedural systems and main principles of the public law systems in various specific intellectual property laws, specifying the common content of the public law systems in these specific laws. It will establish organizational and legal norms for the national intellectual property comprehensive coordination mechanism and behavioral, legal norms for the responsibilities (rights) and functions (obligations) of multiple governance entities such as the government, market entities (industries), research and development institutions, and social entities (e.g., intellectual property intermediary service institutions). It will focus on constructing mandatory norms for the state's obligations in the creation, utilization, management, protection, service, and international exchange and cooperation of intellectual property and the protection of innovative achievements in new industries and fields. It will also provide regulations on establishing a new international intellectual property order and the division of powers and responsibilities in the intellectual property field between the central and local governments. Thus, it is evident that the foundational intellectual property law has specific regulatory subjects, value orientation, primary objectives, and fundamental content. It is not a special law of the Civil Code, nor a private law codex of intellectual property, but a public law that reflects Chinese characteristics. It is based on intellectual property as a strategic resource for national development.

Conclusion

Engels wrote in the preface to the English edition of Capital in 1886: "Every new insight that a science brings forth entails a revolution in the terminology of that science" (Marx, 1972, p. 34). In 1957, American scholar Radcliffe-Brown expressed a similar view from the scientific research perspective: "The most important task of science, and also a long-term one, is to find the correct concepts for analysis." (Radeliffe-Brown, 1957, p. 28). Evidently, "terminological revolution" or "conceptual innovation" is crucial for scientific research. Intellectual property as a strategic resource for national development represents a new understanding of its essence. Based on sublating the private right of intellectual property and the trend of public rights, it views intellectual property from multiple perspectives, including static and dynamic, individual and collective, value and function. It results from summarizing and abstracting the rich practical experiences of intellectual property in China. The proposal and validation of this new concept will inject new vitality into the study of intellectual property law in China, endow it with new contemporary significance, and provide an important theoretical tool for scientifically constructing China's independent intellectual property law knowledge system—an original "significant" concept in the field of intellectual property law research. It also poses new requirements for constructing China's intellectual property legal system. Of course, the understanding of this new concept is still preliminary, and the proposed viewpoints will face many scholars' challenges. The author hopes that more intellectual property law scholars will participate in the research on this topic, thereby promoting the construction of China's characteristic intellectual property legal system and the development of legal research.

References

- Asay, C. D. (2016). The informational value of patents. Berkeley Technology Law Journal, 31(1), 259-324.
- Burk, D. L., & Lemley, M. A. (2003). Policy levers in patent law. Virginia Law Review, 89(7), 1575-1696.
- Cao, X. M., & Xian, C. X. (2020). Intellectual property conflicts and responses in the China-US trade war. *Intellectual Property*, 9, 21-30.
- Chen, S. Q. (2016). Research on financial and taxation policies in the intellectual property power policy system. In C. Shen (Ed.), *The road to becoming an intellectual property powerhouse: Research on basic issues in building an intellectual property powerhouse* (Vol. 1, pp. 227-244). Beijing: Intellectual Property Publishing House.
- Chen, Y., et al. (2017). Research on the role and function of intellectual property in innovation-driven development. In C. Y. Shen (Ed.), *The road to becoming a strong intellectual property nation: Research on the implementation of intellectual property nation construction issues* (Vol. 2, pp. 50-88). Beijing: Intellectual Property Publishing House.
- Depoorter, B., & Parisi, F. (2002). Fair use and copyright protection: A price theory explanation. *International Review of Law and Economics*, 21, 459-461.
- Dong, T., & Ma, Y. (2020). On the conception of enacting a unified basic law of intellectual property. *Jianghai Academic Journal*, 2(2), 165-172.
- Editorial Committee of Intellectual Property Law (ECIPL). (2020). Intellectual property law. Beijing: Higher Education Press.
- Fang, S. K., Song, H. S., Li, G. X., Bi, R. J., & Wang, C. Z. (2014). Research on the framework system of the basic law of intellectual property. *Patent Law Research*, *1*, 125-136.
- Feng, X. Q., & Liu, S. H. (2004). On the private nature of intellectual property rights and their trend towards publicization. *China Legal Science*, 21(1), 63-70.
- Fernandez, D., & Chow, M. (2003). Intellectual property strategy in bioinformatics and biochips. *Journal of the Patent and Trademark Office Society*, 85(6), 465-472.
- Ghosh, S. (2004). Patents and the regulatory state: Rethinking the patent bargain metaphor after Eldred. *Berkeley Technology Law Journal*, 19(4), 1353-1369.

- Han, X. C., et al. (2017). New ideas for intellectual property reform and development under the new economic normal. In C. Y. Shen (Ed.), *Towards an intellectual property powerhouse: Research on the implementation of intellectual property powerhouse construction* (Vol. 2, p. 34). Beijing: Intellectual Property Publishing House.
- Han, X. C., Zeng, Y. N., Wang, Q., & Chen, Z. X. (2020). *Intellectual property: Concepts, institutions, and national strategy*. Hangzhou: Zhejiang University Press.
- Lemley, M. A. (2004). Ex ante versus ex post justifications for intellectual property. *University of Chicago Law Review, 71*(1), 129-150
- Li, J. H. (2020). Paradigm of private law research on intellectual property law in the era after the Civil Code. *Contemporary Law Review*, 5(5), 47-59.
- Li, Y. (2006). Reshaping a comprehensive intellectual property law centered on civil law. *Law and Business Research*, 6(6), 17-26. Lin, Y. F. (2020). *New structural economics*. Beijing: Peking University Press.
- Li, Y. M., & Lü, Y. L. (2004). Public authority of intellectual property. *Journal of Zhejiang University (Humanities and Social Sciences)*, 50(4), 61-68.
- Liu, C. T. (2003). Analysis of intellectual property. Social Sciences in China, 24(4), 109-121.
- Liu, J. W. (2016). On field jurisprudence: A research paradigm rooted in emerging interdisciplinary fields. *Journal of Political Science and Law*, 5(5), 3-16.
- Long, F. Q. (2016). On intellectual property: An observation from the perspective of evolution. In *From experience to theory:*General preface to the Chinese Intellectual Property Library (p. 4). Wuhan: Huazhong University of Science and Technology

 Press
- Marx, K. (1972). Capital (Vol. 1). In Collected works of Marx and Engels (Vol. 23, p. 34). Beijing: People's Publishing House.
- Masur, J. S. (2010). Regulating patents. Supreme Court Review, 2010, 275-326.
- Moerges, R. P. (2019). Justifying intellectual property. (J. H. Jin et al., Trans.). Beijing: Commercial Press.
- National Intellectual Property Strategy Outline Implementation Ten-Year Evaluation Working Group. (2019). *Ten-Year evaluation report on the implementation of the national intellectual property strategy outline*. Beijing: Intellectual Property Publishing House.
- Qi, A. M. (2009). The construction of the basic law of intellectual property. Hebei Law Science, 5(5), 57-60.
- Qi, J. G. (2020). Transformation of the administrative protection mode of intellectual property rights in China. *Journal of Wuhan University (Philosophy & Social Sciences)*, 2(2), 154-168.
- Qi, J. G. (2021a). Accelerating the construction of an effective intellectual property market. Legal Person, 18(4), 5.
- Qi, J. G. (2021b). Research on optimizing the business environment and intellectual property protection law. *Theoretical Exploration*, 2(2), 108-119.
- Qi, J. G., & Lan, H. X. (2022). Research on the administrative protection capacity of intellectual property from the perspective of grassroots governance: A sample of 13 district market supervision bureaus in W City, Hubei Province after institutional reform. Journal of Beijing Administrative College, 2(2), 47-54.
- Qi, J. G., & Zhang, X. X. (2022). New development paradigm and new ideas for intellectual property development. *Journal of Social Sciences in Chinese Universities*, 3, 109-123.
- Radeliffe-Brown, A. R. (1957). A national science of society. Glencoe: The Free Press and The Falcon's Wing Press.
- Rai, A. K. (2019). Machine learning at the Patent Office: Lessons for patents and administrative law. *Iowa Law Review*, 104(6), 2617.
- Shen, C. Y. (2019a). Building a strong intellectual property nation in the new era. Current Affairs Report (Study of the Party Committee Central Group), 7(6), 85-113.
- Shen, C. Y. (2019b, November 4). Improving intellectual property governance capability and level. Study Times.
- Shen, C. Y. (2020, December 9). Comprehensive enhancement of China's intellectual property protection. People's Daily.
- Shen, C. Y. (2021a). Comprehensive strengthening of intellectual property protection to promote the construction of a new development pattern. *China Brand & Anti-Counterfeiting, 1*, 26-29.
- Shen, C. Y. (2021b). Walking the path of China's distinctive development of intellectual property rights. *Patent Agency*, 1(1), 3-7.
- Strakosch, R. (2015). From pirate to plaintiff: Accelerating development through strategic evolution of intellectual property doctrine. *Journal of High Technology Law*, 16(1), 30-95.
- Sun, H. L., & Dong, Y. M. (2007). Interpretation and reflection on the theory of publicization of intellectual property rights. *Legal Science*, *5*, 76-85.

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- The White House. (2020). *Joint strategic plan on intellectual property* (2020-2023). Retrieved from https://www.whitehouse.gov/wp-content/uploads/2022/09/2020-2023-Joint-Strategic-Plan.pdf
- Tian, L. P. (2011). Developing intellectual property to promote economic and social development. Qiushi, 54(1), 48-50.
- United States Patent and Trademark Office (USPTO). (2016). Intellectual property and the U.S. economy: 2016 update. Retrieved September 20, 2023, from https://www.uspto.gov/
- Woolman, S., Fishman, E., & Fisher, M. (2013). Evidence of patent thickets in complex biopharmaceutical technologies. *IDEA: The Journal of Law and Technology*, 53(1), 1.
- Wu, H. D. (2005). On the re-recognition of the private rights nature of intellectual property: Also commenting on the "public right of intellectual property" theory. *Social Sciences*, 27(10), 58-60.
- Wu, H. D. (2013). General theory of intellectual property. Beijing: Renmin University Press.
- Wu, H. D. (2015). Systematic and sinicization research on intellectual property theory. In H. Wu (Ed.), *Annual review of intellectual property* (pp. 1-16). Beijing: Peking University Press.
- Wu, H. D. (Ed.). (2020). Intellectual property law (7th ed.). Beijing: Peking University Press.
- Xi, J. P. (2021). Comprehensive strengthening of intellectual property protection to stimulate innovation vitality and promote the establishment of a new development pattern. *Contemporary Party Members*, 4(4), 3-5.
- Xia, Z. N., & Chen, Z. L. (Eds.). (2014). *Ci Hai* [Dictionary of Chinese language]. Shanghai: Shanghai Lexicographical Publishing House.
- Yi, Q. Y. (2007). Critique of the theory of publicization of intellectual property rights. Electronic Intellectual Property, 7(7), 34-37.
- Yu, Z. Q. (2012). On the private rights nature of intellectual property: Questioning the "public rights theory" of intellectual property. *Legal Forum*, 2, 91-95.
- Yuan, B. (2014). Li Keqiang presides over a State Council executive meeting to decide on reducing preliminary approvals, promoting online approval of investment projects, releasing investment potential, developing vitality, and deploying to strengthen intellectual property protection and utilization to support innovation and entrepreneurship and upgrade "Made in China". Retrieved June 18, 2023 from http://politics.people.com.cn/n/2014/1105/c1024-25981545.html
- Zhang, P. (2017). Research on the legislative ideas and overall content of the basic law of intellectual property. *Patent Law Research*, 1, 1-13.
- Zhang, P., & Zhao, W. N. (2018). Research on the legislative purpose and basic principles of the Basic Law of Intellectual Property. *Intellectual Property*, 12(12), 45-52.
- Zhu, X. H. (2008). Legal issues in the development strategy and implementation of intellectual property rights in China. Beijing: Renmin University Press.