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RESEARCH ARTICLE

From Interdisciplinary Approach to Interdisciplines: The New Liberal Arts Development Road of Legal Education*

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Abstract

The traditional legal education model based on the discipline system of "theoretical law + departmental law" overemphasizes professional subdivision, resulting not only in the separation of different disciplines from each other, but also in the narrow thinking mode, single knowledge structure, and weak practical ability of trained legal talent, who are therefore hardly adapted to the needs of the era, which are characterized as cross-boundary social problems and comprehensive knowledge application. All in all, the training of high-quality interdisciplinary legal talents lags behind social reform and the practice of the rule of law. In the context of comprehensively promoting the development of the new liberal arts, developing the new liberal arts, i.e., deep cross-integration, has penetrated into the construction of the law discipline, broken through the inherent limitations of law knowledge, promoted the interdisciplinary development of law education, and helped cultivate the ability of law students to integrate interdisciplinary knowledge. The development of new law science should proceed step by step, from shallow to deep. It should follow the guidance of social needs, break down discipline barriers, innovate cross-integration mechanisms, transform and upgrade from the "small crossover" among various departmental laws within the law discipline to the "big crossover" between the law discipline and other disciplines, and transform from the innovation of research methods to the innovation of the structure of disciplines. The cultivation of inter disciplines should focus on emerging fields such as national security, artificial intelligence, and social governance.

Keywords new liberal arts; legal education; interdisciplinary approach; interdiscipline; deep cross-integration

I Challenges and Interdisciplinary Changes Faced by Traditional Legal Education

Since the reform and opening up, China has scored remarkable achievements in legal education, and its discipline system has become increasingly mature. Driven by the pragmatic idea of talent training, in order to adapt to the differentiated needs of economic and social development and the division of labor for legal knowledge, the division of second-level disciplines and majors in legal science is becoming more and more detailed. "Knowledge is becoming fragmented due to the ongoing elimination of the unity and integrity of knowledge

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and the gradual increase of barriers between disciplines and majors."[1] With the development of modern society, new technologies and industrial revolutions are sweeping in. A single discipline is often unable to handle the comprehensive problems in practice that are getting increasingly complex. As far as China is concerned, the law discipline is faced with "enormous traditional disciplines, lagged development of emerging disciplines behind economic and social development and the progress on the rule of law, seriously insufficient development of interdisciplines, and inadequate fusion of law and other disciplines."[2] The traditional legal education model built based on the discipline system of "theoretical law + departmental law" overemphasizes the subdivision of majors. This results in mutual independence among several research fields of departmental laws, long-standing crisscrossing gaps—which are difficult to effectively bridge and fill—among different disciplines, and the absence of a fully-fledged mechanism that crosses or connects disciplines. And separation among disciplines has led to the narrow thinking mode, unvaried knowledge structure, and weak practical ability of cultivated legal talents. They lack the innovative ability and knowledge reserves to think about and handle complex and comprehensive social problems from a broader perspective. They can hardly adapt themselves to society's urgent need for rapid iteration and updating of knowledge and for high-quality interdisciplinary legal talents.

China's current traditional law discipline system of "theoretical law + departmental law" has lagged behind social reform and the practice of the rule of law and has even become an obstacle to a certain extent to the improvement of the law discipline system. Legal knowledge in different fields is separated and solidified under a certain discipline, giving rise to barriers among them. However, as real legal problems continue to horizontally extend and vertically link up multiple disciplines, the friction between the two is becoming increasingly obvious, making legal education and academic research divorced from the needs of practice of the rule of law farther and farther.[3] The inherent logic of the iteration and updating of knowledge requires us to smash the disciplinary barriers to carry out educational and research activities and promote cross-integration and system reconstruction among the knowledge of different disciplines. As a result, the concept of interdisciplinary education and research has gradually gained attention in the higher education community at home and abroad, which, in practical fields, trains students through interdisciplinary educational methods to form a diversified knowledge structure, multi-angle thinking ability, and multi-faceted professional qualities.[4] In view of the shortcomings of China's traditional law discipline system, we should closely focus on the goal of cultivating innovative, interdisciplinary, and applied legal talents, and establish an interdisciplinary development strategy for legal education. The main difference between the interdisciplinary legal education model and the traditional legal education model is that

[1] YANG Jingwen, 新文科视野下"法学+"跨学科人才培养模式研究——以监察法学为例 (Research on the Talent Cultivation Mode of "Law+" Interdisciplinary Talents from the Perspective of New Liberal Arts: A Case Study of Oversight Law), 2 高等教育评论 (*Higher Education Review*), 22 (2021).

[2] ZHOU Yang, 在科学和法治的轨道上推进中国特色世界一流法学学科建设——张文显教授访谈录 (Promoting the Development of a World-Class Law Discipline with Chinese Characteristics on the Track of Science and Rule of Law: Interview with Professor ZHANG Wenxian), 8 中国大学教学 (*China University Teaching*), 11 (2017).

[3] Edgar Morin, 复杂性理论与教育问题 (*Complexity Theory and Educational Issues*), translated by CHEN Yizhuang, 北京大学出版社 (Peking University Press), at 47 (2004).

[4] HAN Dayuan & DU Huanfang, 跨学科教育与研究:新时代法学学科建设的实现路径 (Interdisciplinary Education and Research: The Path to Realize the Development of Law Discipline in the New Era), 4 中国大学教学 (*China University Teaching*), 17 (2018).

traditional legal education often focuses on the discipline itself to explore the internal laws of departmental laws such as the objects of regulation, regulatory means, and assumption of responsibility, while interdisciplinary legal education follows the guidance of real problems, advocates consideration of problems from a broader and more open perspective, and focuses on the commonalities or correlations among the knowledge in different disciplines, so as to seek solutions to complex social problems through complementary advantages.

It is far from enough for the science of law, as a discipline that studies complex social relations and creates behavioral norms for members of society, to rely solely on legal knowledge. It is necessary to break down disciplinary barriers, actively learn and draw on the research methods and ways of thinking from other disciplines, fully absorb and utilize the intellectual achievements created by researchers in other disciplines, and obtain the latest research materials and knowledge resources from other disciplines. The interdisciplinary development of legal education is a breakthrough in the limitations of the law discipline itself. It aims to introduce research methods, research results, useful experience, advanced technologies, etc. from similar or related disciplines in the fields of natural sciences, social sciences, humanities, etc. into legal education, and to effectively integrate knowledge in a problem-oriented manner.[5] From the perspective of promoting the development of first-level law disciplines, the interdisciplinary development of legal education will break through the knowledge barriers within the law discipline and integrate it with the knowledge resources and research methods of other disciplines. This will help promote the innovative development of the law discipline with "fresh blood" being introduced to it and give new vitality to legal theory and the practice of the rule of law. From the perspective of promoting the cultivation of first-class rule-of-law talents, the interdisciplinary development of legal education is conducive to shaping the interdisciplinary thinking mode of law students to integrate cross-field knowledge, and cultivating the practical application ability of law students to flexibly use cross-field knowledge to observe social phenomena, analyze social relations, and solve social problems. The interdisciplinary development of legal education is also an inherent logical requirement for the academic development of the contemporary science of law. This is because people engaged in contemporary research on social science have become increasingly aware that combining research perspectives and methods from different disciplines to study an issue can often achieve twice the result with half the effort made to deepen the understanding of the relevant issues.

II Basic Concept of the Development of New Law Discipline: Deep Cross-Integration

Faced with the impact of the "cross-boundary" nature of social problems in the era of network intelligence, the model of legal education urgently needs to go through profound transformations in a timely manner and take the path of development of new liberal arts that is in line with the characteristics of the times.[6] The concept of development of new

[5] Allen Repko, 如何进行跨学科研究 (*Interdisciplinary Research Process and Theory*), translated by FU Cunliang, 北京大学出版社 (Peking University Press), at 28 (2016).

[6] ZHOU Youyong, 论智能时代的技术逻辑与法律变革 (On the Technological Logic and Legal Reform in the Intelligent Era). 5 东南大学学报哲学社会科学版 (*Journal of Southeast University* [*Philosophy and Social Science*]), 67 (2019).

liberal arts originated from Hiram College in the United States. In 2017, when revising its training program, it reorganized the disciplines of traditional liberal arts and integrated the liberal arts and sciences in the exploration of the curriculum system, knowledge system, and talent training methods of interdisciplinary education.[7] After China absorbed the development concept of new liberal arts, the Ministry of Education decided in September 2018 to implement the "Six Excellence and One Top-notch" Plan 2.0 (wherein the "Six Excellences" refer to the education and training program for excellent engineers, the education and training program for excellent doctors, the education and training program for excellent agricultural and forestry talents, the education and training program for excellent legal talents, the education and training program for excellent news and communication talents, and the training program for excellent teachers, and the "One Top-notch" refers to the training program for top-notch students in basic disciplines) to comprehensively promote the development of new liberal arts and focus on improving the cultivation quality of liberal arts talents and their contribution to economic and social development. In April 2019, the Chinese Ministry of Education, in line with the actual needs of national development, decided to implement the "Double Ten-Thousand Plan" (aiming to build 10,000 national first-class undergraduate major stations and 10,000 provincial first-class undergraduate major stations) for the development of first-class undergraduate majors, further break down the barriers among majors in promoting the development of new liberal arts, advance the deep cross-integration among majors, deepen comprehensive major reform and knowledge integration, and actively develop emerging interdisciplinary majors. The "Double Ten-Thousand Plan" for the development of first-class undergraduate majors regards the development of undergraduate majors involving the new liberal arts as a key leverage to comprehensively revitalize undergraduate education and achieve the connotation-oriented development of higher education. Promoting the organic combination of the "new liberal arts" concept and the development of undergraduate majors will be more conducive to fundamentally promoting reforms in liberal arts majors and creating new liberal arts.

The core of the development of new liberal arts lies in "new," and "new" cannot be simply understood as the updating of curriculum, faculty, and training models of traditional humanities and social science education, but rather it expects a new interpretation of the connotation of liberal arts so that the development of liberal arts can match the development of the times and adapt to the digital information society.[8] The development concept of the new liberal arts will rely on inheritance and development, collaboration and sharing, and cross-integration as the main approaches, smash barriers among disciplines, promote the deep cross disciplinary fusion of multidisciplinary knowledge, and thus facilitate the transformation and upgrading of traditional liberal arts.[9] It follows that the fundamental goal of creating new liberal arts is to shape a new humanistic spirit, develop a new humanistic thinking mode, and cultivate new liberal arts talents in the era of cross-integration and network intelligence.

[7] XU Xianming, 新文科建设与卓越法治人才培养 (Development of New Liberal Arts and Cultivation of Outstanding Legal Talent), 1 中国高等教育 (*China Higher Education*), 8 (2021).

[8] LIU Yanhong, 人工智能法学的 "时代三问" ("Three Questions of the Times" for the Science of AI Law), 5 东方法学 (*Oriental Law*), 41 (2021).

[9] WANG Mingyu & ZHANG Tao, 高校 "新文科" 建设：概念与行动 (Development of "New Liberal Arts" in Colleges and Universities: Concept and Action), 14 中国社会科学报 (*Chinese Social Sciences Today*), p. 4, (2019).

Following the development concept of the new liberal arts, the comprehensive and holistic development of discipline has become an inevitable trend in the education of humanities and social sciences. This is not only an external demand for economic and social development, but also an inherent law of iteration and updating of knowledge. Comprehensiveness, integrity, and fusion are the most significant features of the new liberal arts. Interdisciplinary approaches and knowledge integration have become important means to promote the creation of the new liberal arts.

The development of law disciplines is an important part of the development of the new liberal arts. The "new" as in the development of new law disciplines is reflected in the deep cross-integration within the law discipline and with other external disciplines.[10] Compared with the traditional legal education model, in the context of the development of the new law disciplines, the boundaries among departmental laws or between law disciplines and other disciplines such as liberal arts, science, engineering, agriculture, and medicine will no longer be distinct for them to be isolated, and the cross-integration among disciplines has become an inevitable trend. The new law disciplines aim to break through the inherent limitations of traditional legal knowledge and promote cross-boundary mixture among "major disciplines" and mutual fusion within "minor disciplines." In short, the essence of the development of new law disciplines is the connection of arts and sciences, the reorganization of disciplines, and the convergence of disciplines. The *Outline of the National Medium- and Long-Term Program for Education Reform and Development* (2010–2020) clearly states that "optimizing disciplines, majors, types, and hierarchical structures, promoting multidisciplinary cross-integration, and focusing on expanding the training scale for inter-disciplinary talents" is the focus of higher education reform. The initiative, implementation measures, and guiding opinions regarding "Double First-Class" (world-class universities and world-class disciplines) issued by the State Council and the Ministry of Education have also repeatedly emphasized the importance of interdisciplinary cross-integration, requiring us to break down the barriers among traditional disciplines, integrate disciplinary resources, and promote cross-integration.

Traditional law majors, in most cases due to the structure of departments, have clear boundaries among themselves, however, the increasing "cross-boundary" nature of social problems has led to the demand for legal knowledge going beyond the original boundaries. The innovative development of legal education is inseparable from the crossover, fusion, penetration, and expansion within the law discipline as well as with or into the humanities, social sciences, and natural sciences for a number of emerging "law +" disciplines to come into being. Therefore, in terms of the structure of majors, it is urgently necessary for colleges and universities to think outside of the conventional box, smash departmental barriers, explore the setup of cross-departmental majors, fully optimize departmental courses, platform resources, faculty, etc., strengthen the cross-integration of law majors with other disciplines and majors, and create more "problem-oriented, cross-boundary" interdisciplinary new law majors.

[10] ZHANG Junzong, 新文科：四个维度的解读 (New Liberal Arts: Interpretation from Four Dimensions), 5 西北师大学报 (社会科学版) (*Journal of Northwest Normal University* [*Social Sciences*]), 14 (2019).

III Exploratory Stage of the Development of the New Law Discipline: Promoting Interdisciplinary Approach

The development of new liberal arts requires innovation and breakthroughs in research methods. The interdisciplinary approach, as a process of knowledge integration among different disciplines, is a product of the spontaneous evolution of the knowledge system and an endogenous requirement for knowledge production.[11] As the research on a certain issue is going deeper, when the old discipline system cannot solve real problems or can hardly support new theoretical viewpoints, it is in most cases necessary for researchers to adopt the interdisciplinary research method, take the initiative to step out of the boundaries and problem domains of traditional disciplines, actively absorb the research results and useful experiences of other disciplines, and learn from other disciplines' strengths to offset the weaknesses of their own discipline through interaction. In short, the interdisciplinary research method emphasizes cross-integration and knowledge integration among different disciplines. In the tentative efforts of the development of a new law discipline, in order to break through the limitations of the law discipline itself and the structure of departmental laws, the interdisciplinary research method has become increasingly important, has been widely used in the field of legal research, and has gradually transformed from "small crossover" among departmental laws within the law discipline to "large crossover" between the law discipline and other disciplines.

A Small Crossover: Crossover among Various Departmental Laws within the Law Discipline

The rapid development of the economy and society has given rise to more and more emerging fields and a series of complex social problems involving multiple branches of the science of law. The traditional single-departmental laws are structurally complicated and stand in isolation because of strict barriers. "The knowledge system is so increasingly fragmented that it is difficult to gain a holistic understanding of the overall situation and even more difficult to propose systematic solutions to complex problems.... It is urgent to integrate the knowledge system anew on the basis of effective division of labor."[12] Therefore, the crossover among departmental laws under the principle of unity of legal order has become the prevailing trend in academic research. Especially after the promulgation of the *Civil Code*, research on the integration of public and private laws has gained more and more attention.[13] It is actually difficult to determine which of the new departmental laws and regulations belong to, such as the newly issued *Personal Information Protection Law* and the *Data Security Law*. In addition, various departmental law such as civil law, administrative law, and criminal law are studying topics such as personal information protection, data rights and interests, and

[11] LI Liguo & ZHAO Kuo, 从学科交叉到交叉学科:"四新" 建设的知识逻辑与实践路径 (From Interdisciplinary Approach to Interdiscipline: The Knowledge Logic and Practice Path of the "Four New" Development), 3 厦门大学学报 (哲学社会科学版) (*Journal of Xiamen University* [*Arts & Social Sciences*]), 108 (2022).

[12] XIONG Wei, 法学现代化背景下领域法学之契机 (Field Law under the Background of the Modernization of the Science of Law), 5 中国社会科学报 (*Chinese Social Sciences Today*), p. 5, (2017).

[13] LIU Yanhong, 人性民法与物性刑法的融合发展 (The Integration and Development of Humanistic Civil Law and Object-Oriented Criminal Law), 4 中国社会科学 (*Social Sciences in China*), 114 (2020).

data security.[14] Furthermore, if we take the keyword "right" as an instrument, civil law, administrative law, and criminal law will all involve the issue of right protection, except that some are top-down, some are bottom-up, some are between equal subjects, and some are between unequal subjects. In such cases, to provide all-round and seamless protection for citizens' rights, we must get rid of the barriers among civil law, administrative law, and criminal law by flexibly using the interdisciplinary research method.

Researchers of new social issues must break away from the shackles of departmental laws and adhere to the new thinking and research paradigm of "the science of field law" so as to observe and explain these complex legal phenomena, problems, and laws under a relatively stable framework of legal analysis.[15] Specifically, the science of field law is a problem-oriented science that takes all law-related phenomena in a specific economic and social field as its object of research, integrates the research methods of all departmental laws, and adopts the research idea of "unity of all laws" in the field of emerging interdisciplines. It aims to build a new law discipline system, academic system, and discourse system that are open, interdisciplinary, integrative, and applied to fuse multiple legal research paradigms. Compared with departmental laws having strict barriers, the science of field law is more diversified, dynamic, and to a higher degree, flexible. Based on concern for many emerging and cross-linked fields and important practical issues in the changes in economic and social development, the science of field law attempts to find an ideal and open approach to the connection between traditional disciplinary theories and their application to social reality.

Taking the emerging science of data law as an example, it is a typical field of law. The science of data law focuses on regulating data processing activities, a major pressing and realistic issue in the digital era. It takes network data as its main object of research, the protection of data rights, the management of data security, and other matters involved in data governance as its main content of research, and a system of data protection categorized and graded based on importance and industry fields as its main research feature. Data law is a general term for legal norms that regulate the multiple legal relations among data subjects, data processors, the general public, and regulatory authorities. Judged by the disciplinary nature of data law as a field law that "takes into account both public and private interests," it is not a single departmental law, but focuses on such common problems in the field of data governance as derived from various departmental laws, fully integrates the knowledge graph and existing elements of traditional legal departments horizontally, and breaks down the barriers among departmental laws vertically. It explores the universal laws of data governance from different research perspectives and by means of the interdisciplinary research method, creates an endogenous and collaborative framework for data laws and norms overall, and identifies various relations of rights and obligations among different subjects in data processing activities.

[14] XU Ke, 数据权利：范式统合与规范分殊 (Data Rights: Paradigm Integration and Different Norms), 4 政法论坛 (*Tribune of Political Science and Law*), 86 (2021).

[15] LIU Jianwen, 论领域法学：一种立足新兴交叉领域的法学研究范式 (On Field Law: A Legal Research Paradigm Based on Emerging Cross-Fields), 5 政法论坛 (*Tribune of Political Science and Law*), 8 (2016).

B Big Crossover: Crossover between Law Discipline and Other Disciplines

Discipline development enjoys a leading position in school development. The level of discipline is the core competitiveness of higher education and a vital factor in the quality of talent training. The development of new liberal arts and the development of "Double First-Class" complement each other. "'Double First-Class' universities must first strengthen the first-class disciplines identified by the Chinese government, so as to bring along, positively influence, and contribute to the mutual support, cross-integration, and coordinated development of other disciplines."[16] "The inevitability of an interdisciplinary approach is determined by the crossover and boundlessness of development."[17] Within the entire higher education system, various disciplines and majors are interdependent. Interdisciplinary cross-integration is a "catalyst" for breaking down barriers among majors and plays a vital role in adjusting and upgrading the present system of disciplines and majors. Although the science of law and other social sciences have different focuses in terms of purpose or methods of research on social phenomena and social relations, they always overlap each other in terms of the objects of research. So far, proven research paradigms of cross-integration, such as law and economics and legal sociology, have been formed through "grafting." However, overall, law discipline still suffers from closed development, narrow research perspective, especially, inadequate cross-fusion with the natural sciences represented by modern science and technology, difficulty in satisfying the needs for legal guarantee for modern social governance driven by science and technology, and inability to handle with ease a series of new challenges brought about by the transformation of human society into digital civilization.[18]

Entering the era of network intelligence, people's lives and behaviors are beginning to be "kidnapped" by intelligent algorithms, and the subjective status of "human" is gradually lost. It has become particularly necessary and urgent to achieve "reconciliation" between humans and technology and to regain the "world of meaning" and "space of value" of humans in the era of intelligence.[19] In addition, traditional humanities and social sciences focus on the study of relations among people, while natural sciences adhere to the orientation toward technological research and development, follow instrumentalist ideas that ignore the role of the humanistic spirit, and pay no attention to the social problems brought about by technological change. The independent and isolated research paths of the two disciplines are obviously out of step with the times. "The task of jurists is not only to make legal reviews of both widely existing and planned technologies, but also to identify possible violations at an early stage so that corrections can be made as technology develops."[20] Therefore, it is necessary to coordinate the relationship among technology, humans, and society from a

[16] DU Yubo, 新一轮"双一流"建设的路径选择 (Path Selection for the New Round of "Double First-Class" Development), 13 光明日报 (*Guangming Daily*), p. 3, (2021).

[17] ZHANG Shiya, 论学科与学科交叉 (On Disciplines and Interdisciplinary Approach), 4 重庆高教研究 (*Chongqing Higher Education Research*), 4 (2022).

[18] XU Xianming, 新文科建设与"新法学"教育的挑战和应对 (Challenges and Responses of New Liberal Arts Development and the Education of "New Science of Law"), 1 新文科教育研究 (*New Liberal Arts Education Research*), 15 (2021).

[19] XU Fei, 新文科建设:"新"从何来,通往何方 (Development of New Liberal Arts: Where Does the "New" Come from and Where Does It Lead to), 10 光明日报 (*Guangming Daily*), p. 10, (2021).

[20] Eric Hilgendorf, 德国刑法学:从传统到现代 (*German Criminal Law Between Tradition and Modernity*), translated by JIANG Su & HUANG Xiaoyan, 北京大学出版社 (Peking University Press), at 378 (2015).

macro-perspective of the big crossover between natural sciences and humanities and social sciences, study the legal regulation over algorithms and artificial intelligence technologies, or formulate policies for the development of the artificial intelligence industry. It has become an inevitable trend in the era of network intelligence to break down the barriers between law and the natural sciences, and achieve cross-integration between law and the natural sciences. And a consensus is the urgent need for the whole society to cultivate high-quality inter-disciplinary legal talents who know both legal rules and the operating principles of intelligent technology.

Against the background of the increasingly popular application of intelligent technology, we must align legal education with social development, innovate ideas on the development of law discipline and the cultivation of legal talents, and adopt a new model of interdisciplinary cross-integration development of "artificial intelligence + law" to provide strong guarantees of legal talents for the healthy and sustainable development of the artificial intelligence industry and intelligent social governance. This requires us to break down disciplinary barriers, achieve deep cross-integration of law with disciplines such as computer science, information science, and cyberspace security, and promote the development of a big disciplinary crossover platform led by the science of artificial intelligence law.

IV Deepening Stage of the Development of the New Law Discipline: Setup of InterDisciplines

As new law disciplines make further progress, "in a certain sense, the rules for discipline integration are to form 'inter disciplines.'"[21] Emerging interdisciplines are new disciplines formed by the mutual penetration, crossover, and fusion of multiple traditional disciplines. Compared with the existing first-level disciplines, they have relatively independent objects of research and have formed their own theoratical systems, knowledge, and methods. The development of interdisciplines plays a vital role in promoting the overall landscape of "Double First-Class" development. The *Guiding Opinions on Accelerating the Construction of "Double First-Class" in Higher Education Institutions* clearly states that it is necessary to formulate training plans for interdisciplinary talents, explore mechanisms for cross-departmental, cross-disciplinary, and cross-major training of innovative and entrepreneurial talents, focus on the training model of innovative talents, integrate the resources of multidisciplinary talent teams, establish interdisciplines, and promote the cross-fusion of philosophy, social sciences, natural sciences, and engineering technology. The *Several Opinions on Further Promoting the Construction of World-Class Universities and First-Class Disciplines* further emphasizes that it is necessary to should set interdisciplinary majors and cultivate disciplinary growth points. It can be seen from this that in order to develop first-class law disciplines, we must attach great importance to cultivating those interdisciplines in emerging fields that are closely related to law. This is a new growth point for the law discipline, most likely to produce innovative results with disciplinary breakthroughs and revolutionary significance. It would also most likely respond to and solve major and complex social and global problems in real life, and promote the continuous deepening and expansion

[21] XIE Wenjun, 学科交融：法学教育变革的必由之路 (Interdisciplinary Fusion: The Only Way to Reform Legal Education), 1 广西政法管理干部学院学报 (*Journal of Guangxi Administrative Cadre Institute of Politics and Law*), 118 (2021).

of the practice of the rule of law.

As for the relation between interdiscipline and interdisciplinary approach, "Different from interdisciplinary approach, interdiscipline is to create, based on interdisciplinary approach and through deep cross-integration, a series of new concepts, theories, and methods, demonstrate a new epistemology, construct a new knowledge structure, and form a new and richer category of knowledge."[22] An overview of the development process of disciplines suggests that the interdisciplinary approach, as a research method, is still in its early stages of development, while interdiscipline, as an independent category of discipline, is in its advanced stage of development. The evolution from the application of the interdisciplinary research method to the setup of specialized interdisciplines is, in a manner of speaking, a qualitative leap in the development of the new law discipline and also the only way to create new law disciplines.

As a phenomenon, "crossover" often reflects a worldview and methodology of connection, development, and contradiction. However, traditional disciplines lack specialized, systematic, and holistic research on crossover. Therefore, it is necessary to establish an independent category of discipline.[23] The establishment of disciplines follows its own law, i.e., it necessitates the differentiation and integration of knowledge, the formation of a relatively independent talent training system, and the applicability of degree conferrers to train talents on a large scale and in a standardized manner. Subject to the overall deployment of the State Council on deepening the reform of the discipline and major system of higher education and promoting the development of interdisciplines, it was decided on December 30, 2020, after demonstration by experts and approval by the Academic Degrees Committee of the State Council, to set up an "interdiscipline" category, a first-level discipline of "Integrated Circuit Science and Engineering," and a first-level discipline of "National Security Studies" in accordance with the provisions of the *Establishment of Discipline Catalogue and Management Measures for Degree Awarding and Talent Cultivation*. On November 17, 2021, the Academic Degrees Committee of the State Council issued the *Measures for the Establishment and Management of Interdisciplines (Trial)*, which means that every department is thereby enabled to independently explore interdiscipline pilot projects and apply for those that meet the requirements to be included in the catalogue of interdisciplines and become first-level disciplines. Article 5 of the document lays down the basic conditions for establishing interdisciplines in terms of new objects of research, relatively independent theories, systems of knowledge and method, urgent needs for talents, high-level faculty, a solid disciplinary foundation, and excellent talent training conditions. Interdisciplines are not only emerging disciplines that arise from the crossover and fusion of different disciplines but also reflective of the reverse demand of social practice for the subdivision of disciplinary majors and manifestative of the trend that science develops towards comprehensiveness. The main purpose of setting up national security studies as a first-level discipline under the category of interdisciplines is to emphasize the integrality and coordination that the discipline

[22] LI Yulan, 融合贯通开辟科学"新大陆" ——《交叉学科设置与管理办法（试行）》解读 (Fusion and Connection to Open up a "New World" of Science: Interpretation of the *Measures for the Establishment and Management of Interdisciplines* [*Trial*]), 8 光明日报 (*Guangming Daily*), p. 8, (2021).

[23] SUN Bufan, 交叉学科的学理省思及发展路径 (Theoretical Reflection and Development Path of Interdisciplines), 7 黑龙江高教研究 (*Heilongjiang Researches on Higher Education*), 109 (2022).

of national security studies shows during its development. Accordingly, when developing the discipline of national security studies, we should have regard for the comprehensiveness and application nature of interdisciplines, uphold the holistic view of national security, and insist on the combination of traditional security with non-traditional security; in terms of the knowledge system, we should integrate the research results of disciplines such as politics, law, strategies, international relations, diplomacy, and intelligence that involve traditional security, but also include knowledge resources in areas such as economy, society, culture, science and technology, data information, ecological environment, and public health that involve non-traditional security to serve the national security strategies.

As artificial intelligence technology develops in cross-integration with various fields and industries, cross-integration-based scenario applications of "smart + X" such as smart cities, smart transportation, smart medical care, smart education, and smart justice just come into being one after another. After the accumulation of practice and experience on the development of artificial intelligence technology in cross-integration with multiple fields, the *Development Plan for the New-Generation Artificial Intelligence* (hereinafter referred to as the "*Plan*") issued by the State Council clearly identified "building artificial intelligence disciplines" as a key task for development, infusing undying impetus into the development of artificial intelligence. The *Plan* also proposed for the first time that it is necessary to improve the discipline landscape in the field of artificial intelligence, offer artificial intelligence majors, promote the development of first-level disciplines in the field of artificial intelligence, and establish artificial intelligence colleges in pilot institutions as soon as possible. Colleges and universities are encouraged to expand the education content of artificial intelligence majors, form a new training model of "artificial intelligence + X" interdisciplinary majors, and attach importance to the cross-integration of artificial intelligence with the majors of other disciplines such as law. The promulgation of this document shows that the application of artificial intelligence technology in China has achieved a leapfrog from serving industrial development to serving social life. It not only means that the application scope of artificial intelligence technology is constantly expanding, but also that its cross-integration with related industries is constantly deepening. In particular, the application of artificial intelligence technology in the judicial field has profoundly changed the way judicial cases are handled, such as legal questions and answers, data-based processing of information, automation of document preparation and similar case push, case analysis, and intelligent auxiliary adjudication. Moreover, new areas and channels for Justice for the People have been expanded, such as the integrated application platform of the People's Courts for convenient public services. In close response to the urgent need of judicial practice for high-quality, interdisciplinary legal talents well-versed in "legal rules" and proficient in "artificial intelligence technology," and under the policy guidance for improving the discipline landscape in the field of artificial intelligence, political science and law schools should actively explore a new training model for "artificial intelligence + law" interdisciplinary majors in legal education, reserve talents for the development of the science of artificial intelligence law, and set up the independent disciplines of the science of artificial intelligence law when conditions are ripe.

From the internal perspective of the law discipline, the research scope of the science of

artificial intelligence law spans almost all second-level disciplines of law. For example, the research on the status of the subject of artificial intelligence and explain ability of its behaviors involves many departmental law disciplines such as jurisprudence, civil law, administrative law, and criminal law. As far as the humanities and social sciences are concerned, the moral and ethical issues that may arise from accidents involving artificial intelligence also lead to the crossover of law with disciplines such as philosophy, sociology, and ethics. From the perspective of the big crossover among liberal arts, science, engineering, agriculture, and medicine, the science of artificial intelligence law actually also involves the crossover of law with disciplines such as computer science and information science, with typical examples like the common early warning systems for different judgments in similar cases, intelligent legal Q & A robots, and intelligent complaint self-service terminals. This distinct attribute of disciplinary crossover makes it difficult for the field of smart justice to be benchmarked against a specific existing category of discipline. Therefore, the "science of artificial intelligence law" is a highly generalized and contemporary concept that has the potential to become an independent research field. It is a new independent discipline resulting from the cross-integration of "artificial intelligence + law" and including research directions such as data law, network law, computer law and algorithmic regulation. The development of the science of artificial intelligence law will significantly improve the rule of law in intelligent social governance and help modernize the national governance system and governance capabilities.

The development of new law disciplines is an important part of the efforts to build an independent legal knowledge system and is the key for political and legal schools to facilitate the "Double First-Class" program. It is of great significance for us to break through the inherent limitations of legal knowledge and promote the iteration and updating of knowledge. In order to build a law discipline system, academic system, and discourse system with Chinese characteristics and up to world-class standards, it is an inevitable requirement for us to hold onto deep cross-integration, the development concept of new liberal arts, and actively promote the development of new law disciplines.[24] The development of the new law disciplines requires that legal education follow the guidance of social needs, break down disciplinary barriers, innovate cross-integration mechanisms, transform and upgrade "small crossover" into "big crossover," and develop from innovation in research methods to innovation in discipline establishment. It should focus on cultivating interdisciplines around emerging fields such as national security, artificial intelligence, and social governance, serving the strategic needs of comprehensive law-based governance of the state, and providing strong support, in the form of intellectual resources and high-quality interdisciplinary legal talents, for economic and social development.

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[24] YANG Yani, 新文科建设背景下法学教育的变革 (The Transformation of Legal Education under the Background of the Development of New Liberal Arts), 2 新文科教育研究 (*New Liberal Arts Education Research*), 80 (2021).