World Journal of Education and Humanities
ISSN 2687-6760 (Print) ISSN 2687-6779 (Online)
Vol. 4, No. 1, 2022
www.scholink.org/ojs/index.php/wjeh

Original Paper

Research on the Service of University Smart Library in Smart Society

Qiyun Zhang[1*]

[1] Tiangong University, Tianjin, China

[*] Qiyun Zhang, Tiangong University, Tianjin, China

Received: February 26, 2022 Accepted: March 20, 2022 Online Published: March 25, 2022

doi:10.22158/wjeh.v4n1p41 URL: http://dx.doi.org/10.22158/wjeh.v4n1p41

Abstract

With the gradual advancement of the construction of smart society, how to respond to the urgent needs of social development for knowledge services under the new situation is an important topic in the construction of smart libraries. This paper expounds the essential characteristics of knowledge production in smart society and the development of knowledge service concept of Smart Library, analyzes the characteristics of knowledge production mode in smart society from the perspective of knowledge production, and discusses the development trend of knowledge service mode of University Smart Library and the way to realize the transformation of knowledge service mode.

Keywords

Smart society, Smart library, Knowledge production, knowledge service

1. Introduction

Facing the strategic opportunity of a new round of information technology revolution, major developed countries have launched their own intelligent development strategies in various fields such as economy, society and government. Typical examples include the “digital UK strategy” of the UK, the “super intelligent society 5.0” of Japan, the “smart country” of Singapore and the “smart city construction” of the United States. “Smart society” proposed by China in 2017 is a brand-new concept based on the digital economy, digital government and smart city. As one of the main construction contents of “accelerating the construction of an innovative country”, the “smart society” points out the development goals for China’s future social development. Smart society has the basic attributes of highly comprehensive perception, interconnection of all things, comprehensive digitization, high transparency and high intelligence. It organically combines “smart city”, “smart community” and other units, and takes the whole society as the object for overall thinking, planning and construction. It can be

predicted that “smart society”, as a new social form, shows the future prospects of the construction of Digital China and network power. With the help of digital technology, network technology and artificial intelligence, it will bring great changes to people’s life and production.

University library is an indispensable and important part of the smart society system. In this era of major changes in the information and knowledge environment, new technologies such as big data, cloud computing, Internet of Things, block chain and artificial intelligence are changing with each passing day, and the digital age is changing to the era of wisdom. Libraries must also actively respond to and meet the new requirements of social development, and conform to the development trend of The Times under the new situation. At present, the knowledge service ecological space of university library is constantly squeezed by other knowledge service organizations, such as Google, Baidu and CNKI. Its position as a knowledge information center connecting knowledge producers and knowledge consumers is severely challenged. The change of the industry ecological environment determines that the library must also be transformed. Under the requirements of the new background of the smart society, the library should seek new ways of integration and innovative development to realize the transformation of the knowledge service mode of the smart library.

2. Smart Society and Smart Library

2.1 The Connotation and Core of Smart Society

As the integration of various intelligent systems such as smart government, smart industry, smart people’s livelihood and smart city, smart society reflects the new stage of the development of human civilization and society. Under the background of the rapid development of new technologies such as big data, cloud computing, block chain and artificial intelligence and the accelerated change of new business forms such as digital economy, sharing economy and platform economy, “smart society” will profoundly change people’s production and life style, the interactive relationship between individuals, enterprises, government and society, and the management mode of society. As a new concept, smart society has the core characteristics of openness, innovation and inclusiveness. The connotation of “smart society” is based on information technology, stimulates the creativity of the whole society through the reform of institutional framework, gathers the joint force of development, and takes knowledge production as the core to drive other production fields, so as to finally realize the social form of innovation driven development and solve the main social contradiction of unbalanced and insufficient development.

2.2 The connotation of Smart Library

In 2003, Aittola M, a Finnish library scholar, put forward the concept of “Smart Library” for the first time, and the research of Smart Library has become a key field of library academic circles. Scholars at home and abroad have interpreted the Smart Library from different perspectives such as technology application, space reconstruction, library function and service. From the perspective of technology, Hoy M B and others discussed the application of Internet of things, intelligent equipment and automatic

positioning technology in the building of Smart Library. Yan Dong, a Chinese scholar, believes that Smart Library = library + Internet of things + cloud computing + intelligent equipment. Smart library realizes intelligent service and management through Internet of things. It has the characteristics of intelligent information communication, intelligent architecture and intelligent service. From the perspective of space composition, Li houqing and others believe that smart library should be the integration and interaction of physical library and virtual library. Shan Yun and Shao Bo elaborated the concept and construction of smart space from the elements of resources, technology and services. Kong Fanchao believes that the integrated application of digital twin technology and other intelligent technologies will promote the integration of library virtual space and physical space, so as to build a more intelligent library space. From the perspective of functions and services, Baryshev RA believes that the concept of smart library is not only about infrastructure, personnel and resource allocation, but also the ability to provide various electronic resources and professional personalized services based on information interaction technology. Wang Shiwei and others believe that a smart library characterized by interconnection, efficiency, convenience, intelligence, ubiquity and visibility is the only way for contemporary libraries to achieve historic leaps, and an inevitable choice for the transformation and upgrading from digital libraries to integrated libraries. Chu Jingli et al., proposed that the smart library is the result of the interaction and integration of smart technology, smart librarians, and library business and management. It is the core connotation of digital library, third-generation library and new library. It is also the highest form and leading model of Library in the future. Chen Jin and others believe that smart library is a smart collaboration and organism integrating five elements: technology, resources, services, librarians and users. With the support of intelligent technology based on Internet of things and cloud computing, smart librarians organize to provide on-demand services to users.

In the past two years, with the rapid development of new-generation information technologies such as big data, cloud computing, 5G, edge computing, artificial intelligence, and blockchain, smart libraries have been continuously injected with new connotations and development impetus. Research on smart libraries has gradually shifted from academic concept research to R&D practice and standard system formulation [3-6]Liu Baorui and others discussed the application prospect of deep learning technology in intelligent analysis, intelligent decision-making and intelligent library services under the background of big data. Li Mo constructed a mobile visual search service model of Smart Library Based on deep learning, and designed the workflow of the model. Liu Haiou and others proposed a situational recommendation system for user portrait of mobile library based on deep learning. Liu Wei and others put forward ten scenarios of 5G application in libraries, and discussed the risks and challenges brought by 5G technology to the library industry. From the micro perspective of library service and management innovation, Mao Yihong explored the reconstruction of library by artificial intelligence on the basis of scientific understanding of artificial intelligence. Liang Yufang and others expounded the relationship and integration mode between libraries and artificial intelligence, and put forward suggestions for the application of artificial intelligence in libraries.

It can be clarified that the connotation of Smart Library should be a growing organic ecosystem integrating multiple elements such as resources, technology, space, librarians, management and services, and all elements are interrelated, integrated and mutually promoted. Smart Library adheres to the people-oriented concept and has the characteristics of interconnection, openness, sharing, efficiency, green and convenience. It takes the Internet of Things, the Internet and artificial intelligence as its core technologies and the ultimate goal is to provide users with more in-depth and accurate services, promote the transformation of knowledge into wisdom, and assist in the cultivation of innovative talents.

2.3 Smart Society provides new opportunities for Smart Library Services

Smart society is a great and systematic change to human society. It is a more advanced social form after industrial society and information society. All industries are inevitably involved in this change. As the development trend of future libraries and an important part of smart education, smart library will likely play a greater role in smart society. The smart society provides a broader development platform for the construction of smart libraries, and the knowledge production model of the smart society is undergoing profound changes, which poses higher and deeper challenges to the knowledge service of smart libraries in colleges and universities. If the construction of the smart library can actively respond to the challenges of the smart society and be closely integrated into the construction of the smart society, it will be accepted by the future society and further promote its development. On the contrary, it may face various difficulties.

At present, there are few literatures on the construction and service of Smart Library under the background of smart society. The main reason is that “smart society” is an open and new proposition in growth, which is in the stage of continuous exploration and development. In 2017, Wang Shiwei proposed that smart society is a new realm of smart library development, which is the first time that scholars have discussed the development of Smart Library under the background of smart society. In 2018, song Shengyan and DuanMeizhen, based on the development background of smart society, discussed the Smart Library from three aspects: connotation, service and construction path, and believed that the development of smart society puts forward higher requirements for Smart Library, and the library needs to provide higher and more accurate services and broader knowledge sharing space. In 2020, LV Liyuan analyzed the challenges and opportunities faced by the library information ecosystem in the construction of smart society, and reconstructed the library information ecosystem framework from both static and dynamic dimensions. In 2021, Rao Quan, on the background of the development trend of the global “smart society”, analyzed the changes of Libraries in ideology, business pattern, knowledge service and spatial layout in the new era, and expounded the overall idea, content framework and goal vision of the construction of the “National Smart Library System”, marking the transformation of Smart Library Construction from theoretical discussion to practice, It has opened a new chapter in the construction of domestic Smart Library.

Based on the current literature research on smart library construction under the background of smart

society, it can be found that the research on smart library construction under the background of smart society is still in its infancy, lacking mature theoretical guidance in many aspects, and the research content is not deep enough. The research perspective is mostly based on the construction of the smart library itself, which is not closely integrated with the development of the smart society. Based on the connotation and development trend of smart society, this paper makes a preliminary discussion on the knowledge service mode of smart library in colleges and universities from the perspective of knowledge production.

3. Characteristics of Knowledge Service of Smart Library in Smart Society

3.1 Characteristics of Knowledge Production in Smart Society

Gibbons and others put forward the knowledge production mode 1 and 2, which is currently one of the most widely applied theories in educational circles at home and abroad. Mode 1 is "a knowledge production mode characterized by disciplinary knowledge research which is mainly institutionalized in Universities". With social change mode 1, it has encountered difficulties. Gibbons and others further proposed model 2 as a supplement and development to model 1. Knowledge Production Mode 2 has knowledge production in application contexts, interdisciplinary, transdisciplinary, heterogeneous social diffusion, social accountability, and reflexivity. , diversification and the quality evaluation of the whole process and other basic characteristics. Nowotny and others later further explained mode 2, emphasizing that the application of mode 2 is not limited to scientific research, but covers the whole society. Carayannis E.G. logically deduces Modes 1 and 2, and then proposes Knowledge Production Mode 3, a quadruple helix innovation ecosystem with knowledge clusters, innovation networks, and fractal innovation ecosystems as the core organizational modes.

With the development of the construction of smart society, the mode of knowledge production is undergoing profound changes and gradually showing new characteristics and new trends. Knowledge production in a smart society is more innovative, inclusive and open."Innovation" is a description of the production law of intelligent society. Based on human creativity, it is externalized into various carrier forms such as knowledge, information and data. It is not limited to physical carriers such as specific products, but embodied in "knowledge" itself. "Inclusiveness" refers to the balance between knowledge production and knowledge demand, which requires reforms in education, finance and other fields to give different individuals equal capacity and equal opportunities to participate in economic activities. "Openness" means that the construction of a smart society should have a global vision and form a global open space. In the process of the continuous evolution and transformation of knowledge production mode with the development of society, universities, as social organizations that regard knowledge as the essential attribute and basic existence, will also be greatly affected. In order to meet the development trend of library, smart library must adapt to the transformation of knowledge production mode in knowledge service mode.

Knowledge production mode 1 aims at "super utilitarian" pure knowledge research, separates the

University from the society, takes the organizational characteristics of College-Department-Institute, and separates the internal organizations of the university into “isolated islands”. In knowledge production mode 1, the context of knowledge production is mainly guided by the academic interest of a specific community and limited by the social norms governing basic research or disciplines. Knowledge presents a static concentration, attracting knowledge producers to gather from outside to inside. Knowledge production mode 1 adopts traditional academic research quality evaluation methods, such as peer review methods.

The subject of knowledge production in knowledge production mode 2 is no longer limited to colleges and universities, but organically combined with society. Its subject of knowledge production is diversified. Colleges and universities, government, enterprises and venture capital have formed a knowledge production alliance, thus constructing a “triple spiral” knowledge production structure of “colleges-enterprises-government”. Since the 21st century, with the economic globalization, the status of the public in knowledge production has been increasing. Knowledge production needs to realize the deep integration and optimization of more subjects in order to adapt to the fierce international competition of knowledge and technology, thus forming an A “quadruple helix” knowledge innovation complex formed by “universities-enterprises-government-public”. In knowledge production mode 2, knowledge production is carried out in an application situation and is determined by “more differentiated knowledge and social needs”. Knowledge production is the result of a wider range of factors in the overall society. The demand comes from the real problems faced by various social subjects. Knowledge is a dynamic center, the results of knowledge production mainly serve the needs of practical application. In mode 2, due to the heterogeneity of subjects involved in knowledge production, knowledge production places, communication methods and research fields involved, as well as the strong characteristics of application situations, the produced knowledge is required to solve practical application problems.

With the development of the information network, the knowledge production situation in the knowledge production mode 3 is further expanded on the basis of the mode 2. It comes from different paradigms, production modes and different specialized application environments. Heterogeneous knowledge constitutes innovation network nodes, which constantly collide and recombine in the network to realize the innovative production of knowledge. Mode 3 not only considers industrial economic interests, but also social public interests and national economic strategic interests. The reform of knowledge production mode needs to take into account the interests of all subjects involved in knowledge production and deal with the accountability from the society, which requires continuous reflection and improvement on the mode, process, efficiency and results of knowledge production, and continuous optimization, reorganization and integration of knowledge production situation.

The knowledge production model is closely related to the development of disciplines. When the classification and organization of knowledge represented by disciplines cannot meet the actual needs of knowledge production, differentiation and re-integration will inevitably occur. The development of

disciplines has gone through multiple morphological stages of single-discipline, multi-discipline, inter-discipline and trans-discipline. In the trend of discipline differentiation and integration, new knowledge production models emerge, and knowledge subjects representing the interests of different groups are involved in the process of knowledge production. In this way, the driving force for the development of the discipline extends from purely personal academic interests to economic interests and social public interests. Interdisciplinary and interdisciplinary are knowledge systems and knowledge clusters temporarily gathered together in specific application situations. They are problem-solving oriented. They need deep integration, optimization and integration of various subjects to seek efficiency maximization and greater integration and innovation, so as to adapt to the increasingly fierce international scientific and technological competition and the increasingly complex situation faced by mankind.

Facing the rapidly changing international situation and the pressure of scientific and technological competition, colleges and universities at home and abroad, as one of the main subjects of knowledge production, must also meet the strategic needs of national and social development, adopt cross-border cooperation mode and collaborative innovation with other subjects participating in knowledge production in the construction of smart society, so as to seize development opportunities. Moreover, some major issues, such as energy, health, environment, health and other global public issues, can be solved not only by one country or region, but also need the participation of all countries around the world. This is also the “openness” and “global vision” emphasized in the construction of smart society. Library’s knowledge service should also take into account the changing characteristics of knowledge production subjects in the transformation of knowledge production mode, and help knowledge innovation in cross-border services, resource integration and collaborative cooperation.

3.2 New Changes of Knowledge Service in Smart Library from the Perspective of Knowledge Production

3.2.1 Knowledge Services Are More Cross-Border and Collaborative

Under the background of smart society, the interdisciplinary knowledge service mode of university library is not limited to the disciplines of the university, but more suitable for the operation of inter-library cooperation. The interlibrary alliance, which is characterized by standardized standards, resource co-construction and sharing, and unified technology and service platform, will greatly improve the ability of interdisciplinary knowledge service of libraries. It is the most practical and feasible organizational form of Smart Library in the future and can give full play to the role of University Smart Library. The situational characteristics of the new model of knowledge production also require cross-border cooperation between university libraries and other entities in the smart society. Knowledge innovation requires knowledge to circulate, collide, and reorganize between different entities. In this process, university libraries need Strengthen innovative information service support for enterprises, play a bridge role between universities and enterprises, and between enterprises and enterprises, establish information cooperation relationships with enterprises, and jointly build

school-enterprise databases and enterprise knowledge service platforms. The interdisciplinary and transdisciplinary characteristics of knowledge production models often require multi-disciplinary collaborative research to jointly solve specific problems, and require teams or individuals to collect information, theories, data, technologies and tools from multiple disciplines to promote the understanding of problems. In order to adapt to the new changes in knowledge production mode, university libraries need to realize interdisciplinary knowledge services, help to explore the relationship between different disciplines, and promote knowledge innovation.

3.2.2 Knowledge Services Are More Socialized

University libraries should integrate into the whole process of knowledge production, and the socialization of knowledge service is an inevitable trend, which is also consistent with the idea that university libraries need to actively carry out socialized service advocated in the field of education. Compared with the socialized service advocated at present, the socialization of knowledge service in university library pays more attention to serving the subjects participating in specific knowledge production. At present, research universities at home and abroad are still the main core force of knowledge innovation. As a university library with rich professional collection resources, high-quality space and a large number of professional talent resources, it has a huge advantage in the construction of a smart society with “knowledge production” and “knowledge innovation”. If the university library can seize the opportunity and closely embed and integrate it into the whole process of knowledge production in the smart society, it will help to solve the current dilemma of the ecological space being compressed by the library, improve the status of the library in the smart society in the future, and increase the discourse power of university libraries.

With the socialization of knowledge service, the service subject is more detailed, and the service content is more professional and systematic. The new knowledge production model aims at solving practical production problems and social public problems, and forms loose or close teams composed of various academic communities, companies, enterprises, governments and other subjects, including universities and scientific research institutes. In this process, university libraries play an important role of “connecting the past and the future”. The “connecting the past” means that the university library should give full play to its role as a bridge based on the professional characteristics and advantages of its own university, and focus on specific problems and rely on the open and sharing of the smart society. The data platform promotes the rapid integration of knowledge production subjects into efficient knowledge production groups. In a smart society, social citizens are an important part of knowledge production in a smart society. To fully guarantee the equal rights of social citizens in the fields of education and economy, university libraries should provide strong support for knowledge production of social citizens. In a smart society, social citizens are an important part of knowledge production. To fully guarantee the equal rights of social citizens in the fields of education and economy, university libraries should provide strong support for knowledge production of social citizens. For example, it can provide citizens with lifelong education opportunities, provide information and data resource support

for social citizens' innovation and entrepreneurship, assist citizens in formulating innovation and entrepreneurship plans, and provide citizens with information services such as market, policy, finance, and loans. Or university libraries can help citizens to quickly obtain resource support in the early stage of innovation and entrepreneurship and provide data resource services in the process of innovation and entrepreneurship, including legal, intellectual property protection, intelligence consulting and other services. If the library seizes the opportunity to establish the reputation of the library in the tide of social citizen knowledge production and national innovation and entrepreneurship, it will effectively improve the social status and influence of the library.

3.3.3 Knowledge Service Evaluation System Is More Diversified

The new development of the library's knowledge service model under the background of the smart society has brought great challenges to all aspects of the library. The change of knowledge production mode requires the diversification of subjects involved in the quality evaluation of knowledge production. Library knowledge service needs to be embedded into the specific process of knowledge production and run through the whole process of knowledge production, which requires the library to establish a matching service quality evaluation system. The ultimate purpose of library knowledge service is to promote quality through evaluation. Establishing a multiple evaluation system including knowledge service librarians, library managers, service subjects, and social third-party evaluation structures will improve the objectivity and comprehensiveness of service quality evaluation results.

4. The Realization Path of Knowledge Service in Smart Library

The construction of smart society is a long-term and arduous systematic project involving complex elements, diverse applications and continuous evolution. The transformation of knowledge service mode of University Smart Library is also a long-term and arduous process. Moreover, it continues to evolve with the change of technology and the improvement of policy and legal system in the construction of smart society. We can't rush for success, and the transformation of knowledge service mode of University Smart Library should be gradually promoted in stages in combination with the actual situation.

4.1 Improve the Service Level of Smart Library

In the process of knowledge service transformation of university library, we should always adhere to the essential function of serving the learning, teaching and scientific research needs of teachers and students. Change the traditional passive shallow knowledge service mode into active deep-seated knowledge service mode, provide knowledge services for users, solve the knowledge needs and technical problems encountered in learning, teaching and scientific research, promote knowledge production and realize the value-added and innovation of knowledge. The knowledge service of university library needs to know the real needs of users and help users screen, analyze, process and reorganize from massive information resources. With the help of the information collected by the library's big data platform, it is an inevitable trend of library knowledge service to establish dynamic

user portraits and provide situational personalized services for their learning and scientific research.

Smart librarian is the core of Smart Library. The knowledge service of smart library requires smart librarians to change their pure identity of information supporters and participate in the process of knowledge innovation, which poses a severe challenge to librarians. This not only requires librarians to have the ability of information collection, analysis and processing, but also requires librarians to have a deep professional knowledge background. Especially for the libraries of research universities, the individual research ability of librarians is very important to support discipline development and realize embedded discipline knowledge service. The ability of librarians directly reflects the knowledge service ability and value of the library. University libraries should strengthen the cultivation and reserve of talents, constantly improve the talent management and incentive mechanism, stimulate and cultivate the innovative ability of librarians, and encourage librarians to actively participate in knowledge services.

4.2 Strengthen the Marketing of Knowledge Service Products and Establish Brand Effect

Libraries need to change the current simple marketing method through official WeChat, Weibo homepage or hold several publicity activities. They need to carry out systematic planning from the strategic level according to the characteristics of users, and formulate innovative omni-channel marketing strategies that can attract users for a long time. Seize users in the current situation of increasing competition in the information society. Cultivate professional marketing librarians, flexibly adopt various channels such as physical venues, network platforms, social media and mobile terminals according to the characteristics of users, go deep into the user group, establish a reasonable feedback and evaluation mechanism, achieve continuous tracking and seamless connection of various channels, and let users experience the effect of knowledge service products. At present, the marketing objects of colleges and universities are mainly aimed at teachers and students. With the socialized development of knowledge services, companies, enterprises and the public will also become the marketing objects of knowledge service products in Colleges and universities. The marketing activities of university libraries also need to introduce external cooperation mechanisms to cooperate with companies and enterprises to establish an open and shared knowledge product service platform, encourage teachers and students to use the open data of schools and enterprises for innovative scientific research and application, and promote the production of innovative knowledge. Only by strengthening their own marketing activities can university libraries enhance their position in the construction of smart society and enhance their social influence.

4.3 Strengthening the Construction of University Library's Knowledge Base and Characteristic Database

University libraries must speed up and strengthen the construction of their own knowledge base and characteristic database to reduce the pressure of the rising price of data resources. The knowledge base of colleges and universities collects, sorts out and further processes knowledge products created by teachers and students in colleges and universities, including papers, patents, books, graduation thesis,

teaching materials, scientific reports, scientific research data, academic conference materials held by teachers and students, and resources such as innovation and entrepreneurship projects, achievements and experiences in academic competitions. In the construction of the knowledge base, the combination of independent construction and alliance construction can be adopted. The library alliance should play an important role in this process, and can also establish cooperation agreements with data suppliers. With the development of the construction of a smart society, the library knowledge base alliance can rise to the national level in the future, and receive national support in funding, technology and data resources, which will effectively enhance the status of university libraries. The knowledge base can further enhance the construction of characteristic databases such as school characteristic databases and subject characteristic databases. The construction of characteristic resource bases is suitable for the collaborative cooperation model. Through the same industry alliance and cross industry alliance, it can effectively reduce repeated construction, improve resource quality and richness, and ensure the leadership of characteristic database, At the same time, through the way of cross industry alliance, we can expand the social openness and utilization rate of the library's characteristic resource library and improve the social reputation of the library.

5. Conclusion

The construction of smart society provides a broader development platform for smart libraries. The highly data-based, open, shared and transparent new framework of the smart society has brought the possibility for the smart library to realize the high-quality, accurate and personalized knowledge services expected in the smart library. At the same time, the essential characteristics of knowledge innovation in smart society also require smart libraries to firmly occupy an important position in promoting knowledge flow and service knowledge innovation in the process of knowledge production in the future. In the future construction of the smart library in colleges and universities, it is necessary to grasp the guidance of government policies, borrow resources and technology platforms from various social subjects, and realize cross-border collaboration for win-win and mutual benefit, so as to provide systematic, authoritative and professional knowledge services to the public and enhance the authority of the knowledge service of the university library.

Reference

Chu, J. L., & Duan, M. Z. (2018). Smart Library and Smart Service. *Library Development*, *2018*(04), 85-90.

From smart city to smart society, digital empowerment of the real economy. (2018-04-29). Retrieved from http:// www.fjii.com/gb/sp/2018/0425/150369.shtml

Guo, Y. H., & Tang, Z. W. (2020). Enlightenment of Japan's super smart society to the construction of China's smart society under the national innovation system. *Research on science and technology management*, *2020*(09), 38-44.

Liang, G. D. (2011). Smart Service—New Concept of Library Service in the Age of Knowledge Economy. Researches In Library Science, *2011*(11), 88-92.

Liu, Z. Y. (2004). Smart service—A new professional concept of Librarians in the network era. *Modern Information*, *2004*(02), 140-141. https://doi.org/10.1001/archderm.140.1.141

Lv, L. Y. (2020). Reconstruction of library information ecological framework driven by intelligent society. *Information Science*, *2020*(04), 44-50.

Michael, G. (2011). *A new model of knowledge production: dynamics of contemporary social science and research*. Beijing: Peking University Press, 2011.

Song, S. Y., & Duan, M. Z. (2018). The connotation, service and construction path of smart library under the background of smart society development. *Library and Information Service*, *2018*(12), 51-58.

Wang, S. W. (2017). Smart society is the new realm of smart library development. *Library journal*, *2017*(12), 9-13.

Xiong, T. C., Lu, X. M., &Yuan, S. (2020). Research on the strategy of smart library construction under the background of 5G. *Library Research and Work*, *2020*(06), 25-29.