

From Library to Library Science

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Abstract

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Full Text

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Abstract: The development of human history is a process of continuously creating and utilizing knowledge. Libraries play an important intermediary role between creators and demanders of knowledge, promoting the broad, rapid, and low-cost dissemination, popularization, and use of knowledge; their essence is a dynamically evolving service capability. Library science is the study of “comprehensive” knowledge, “intermediary” knowledge, and “applied” knowledge; it originates in library practice and serves library practice. The disciplinary legitimacy of library science includes theoretical legitimacy and applied legitimacy, and, premised on the social legitimacy and market legitimacy of libraries, constitutes a “four-in-one” legitimacy.

Keywords: library; library science; legitimacy

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Abstract: The development process of human history is a continuous process of creating and utilizing knowledge. Libraries play an important intermediary role between knowledge creators and demanders, promoting the widespread, rapid, and low-cost dissemination, popularization, and utilization of knowledge. Their essence is dynamically evolving service capabilities. Library science is the study

of “comprehensive” knowledge, “intermediary” knowledge, and “applied” knowledge, originating from and serving library practices. The disciplinary legitimacy of library science includes theoretical legitimacy and applied legitimacy, and it is predicated on the social and market legitimacy of libraries, thus constituting a “four-in-one” legitimacy.

Keywords: Library; Library Science; Legitimacy

1 Introduction

The development of human history is a process of continuously creating knowledge—a process of casting off barbarism, ignorance, and backwardness and moving toward rationality, morality (as in Socrates’ dictum that “knowledge is virtue”), and civilization. With the development of higher education, especially after the Industrial Revolution, the pace of knowledge creation accelerated markedly, and its dispersion and division of labor increased. In terms of time, knowledge has been created discontinuously; taking library science as an example, it was precisely through the contributions of Schrettinger, Ebert, Ranganathan, Danton, and others that a relatively complete knowledge system of library science eventually took shape. In terms of space, knowledge has been created broadly and in a dispersed manner; different people, organizations, and regions may each possess a part of it. For example, the iPhone is the result of joint cooperation among more than 30 countries around the world. In terms of disciplines, philosophical knowledge in ancient Greece gradually gave rise to knowledge in the natural sciences and the humanities and social sciences, and further differentiated into specific disciplinary bodies of knowledge.

The development of human history is also a process of continuously utilizing knowledge. By mastering scientific knowledge, one can understand the objective world; by using technical knowledge, one can transform the world; by understanding knowledge in the humanities and social sciences, one can settle one’s life. Only

Only by fully utilizing all knowledge created in the past to enrich individual minds can the intellectual level of humanity be generally raised, social productivity be enhanced as a whole, and a virtuous cycle of knowledge creation, dissemination, use, and re-creation be formed.

In the process of creating and using knowledge, fragmented, local, and temporary knowledge must be stored and even disseminated by means of some carrier or form. Thus, carriers such as stone, clay tablets, tortoise shells, metal products, bamboo slips, wooden tablets, and silk gradually emerged. With the advent and upgrading of papermaking and printing, books became an extremely effective medium: they could gather, preserve, and disseminate the knowledge created by humanity in the past over the long term, conveniently, at low cost, and systematically, thereby overcoming the “natural barrier” between knowledge creators and knowledge users. **A book is a library.**

2 Library

2.1 The Intermediary Role of the Library

As more and more knowledge is created, relying entirely on creators to store and disseminate knowledge gives rise to many practical problems: either it is difficult to do, or it can be done but at high cost, with low efficiency and poor results. At the same time, more and more people need to obtain the various kinds of knowledge created by humanity in the past—either to improve understanding or to solve difficult problems……Yet relying entirely on oneself to search for, organize, and acquire knowledge is usually a very troublesome matter: either it cannot be done, or it is costly, inefficient, and of poor quality. Therefore, contradictions arise in terms of time, space, type, and other aspects between the supply and demand of knowledge. How can these contradictions between supply and demand be effectively resolved? Relying on a single book or a small number of books is, after all, limited in the knowledge and value that can be carried and transmitted. Therefore, it is necessary to organize numerous books in a planned and systematic way, and to make them available to specific reader groups at fixed places, at fixed times, and in a centralized manner. Only in this way can the individual knowledge created by humanity in the past be disseminated, diffused, and transformed into collective knowledge and social knowledge on a large scale and rapidly; only then can the value of knowledge be better realized. In this way, the library came into being.

The emergence of the library/book repository signified the importance of books as a medium for the preservation and dissemination of knowledge/information. Traditional libraries mainly undertook the function of book/knowledge repositories; they stored more and used less, with an emphasis on storage. Use was usually a matter for a very small number of privileged people, and the frequency of use was relatively low; the effect of dissemination was very poor. They failed to fully excavate and realize the value of knowledge, did not form broad market-oriented supply-demand relations, and yielded limited overall returns. In the mid-nineteenth century, a new type of library characterized by public welfare, equality of rights, and openness was born^[1]; it was the result of the maturation of modern humanistic ideas such as civil rights and equality for all in European society^[2]. Its social benefits far exceeded social costs and the individual benefits of traditional libraries. From closed to open, from “books for the few” to “books for all,” from storage-centered to a combination of storage and use and then to use-centered, and with integrated service management (all-staff participation, comprehensiveness, whole-process coverage, and full benefits), the supply-demand system for library resources has become increasingly complete.

Admittedly, the supply of resources and readers'demand are not exactly the same as supply in a freely competitive market. Therefore, market rules cannot be used entirely to explain or guide the organization of libraries and their relationships with readers. First, in terms of freedom, libraries belong to governments, private institutions, universities, and other organizations; their construction and

operation mainly depend on fiscal appropriations, social donations, and the like. Compared with market-oriented enterprises, their independence, autonomy, and freedom are insufficient. Second, in terms of public welfare, libraries do not ...

They are not intermediaries, and therefore generally cannot charge service fees; nor can their social benefits be measured by short-term or economic returns, and thus they need not, like enterprises, pay special attention to questions of their own revenues and costs. Third, in terms of equity, the library is one of the most equal places: it must treat all readers fairly, and there is no price discrimination or privilege discrimination as in the free market. Fourth, in terms of openness, the library must be open to all readers at stipulated times and places, and do its utmost to provide the services readers need. Fifth, in terms of competition, libraries and museums, archives, online bookstores, information-service providers, search engines, AI agents, and the like stand in relationships of complementarity and weak competition.

Library operation and management should be made as enterprise-like as possible, so as to strengthen their own division of labor and degree of specialization, play the role of the “invisible hand” in supply-demand relations, guide and create readers’ needs, promote the optimized allocation and effective use of scarce resources, improve the efficiency and effectiveness of services, and thereby enhance the library’ s market legitimacy. Yet library operation and management also cannot be completely enterprise-like. After all, there are many inconsistencies between libraries and enterprises. When the “invisible hand” cannot fully play its role, the “visible hand” must exert influence in order to ensure the public-benefit character, equity, and openness of libraries. That is to say, this kind of service supply-demand relationship can neither rely entirely on market-oriented means, allowing it to develop freely and grow wildly, nor can it rely entirely on methods of human intervention; rather, libraries must be specifically planned and guided in resolving contradictions or conflicts in supply-demand relations.

The library is a place where information, knowledge, and the like are collected and dispersed; it is also a place where people and ideas converge, and a site, pathway, and mode of social existence and interaction. Dury, who once served as director of the British Royal Library, was the first to reveal the library’ s role as a “middleman” between readers and resources—namely, finding resources for readers and finding readers for resources. According to IFLA’ s explanation, the modern library has four functions: preserving humanity’ s cultural heritage, carrying out social education, disseminating scientific information, and developing intellectual resources. Owing to many real-world problems involving cost, technology, time, space, and so forth, it is very difficult for direct links to be established among readers, knowledge creators, and resource suppliers. They can only obtain the resources they need free of charge through the intermediary channel of the library. Therefore, the library plays an almost completely intermediary role between resources and readers. Readers of different types and with different purposes gather in virtual and physical spaces, transcending dif-

Figure 1. The library' s fully intermediary role

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ferences in time, space, identity, status, and other factors; through online or offline channels, they communicate freely and equally with knowledge creators and rapidly and directionally obtain various kinds of useful knowledge previously created, thereby promoting, at the level of society as a whole, the optimized allocation, effective integration, and full utilization of useful resources across time and space, identity, and status, and narrowing information gaps and knowledge gaps, as shown in Figure 1.

Figure 1 The library' s fully intermediary role

2.2 The Nature of the Library

Philosopher and mathematician Leibniz held that the library is humanity' s encyclopedia, the knowledge treasury of all disciplines, and the center for the exchange of academic information. Dewey believed that the library is a people' s university that promotes social education and helps strengthen the integrity of public education^[3]. From repositories of books, hybrid libraries, digital libraries, and intelligent libraries to data-intelligent libraries; from resource centers and information centers to learning centers, libraries have continually been redefined and repositioned, endowed with different roles, and have performed corresponding functions.

From a sociological perspective, the library is a social organ: an intermediary organizational tool jointly created by stakeholders, possessing specific structures and functions, satisfying stakeholders' needs and fulfilling their dreams; it is a "bridge" connecting resources and readers. It must perform corresponding social functions and assume corresponding responsibilities for its creators. It has clear purposiveness and value, and its "growth" is a process of continual self-renewal, iteration, and transcendence, produced by the joint action of individual, organizational, and social factors.

From an economic perspective, the library is the sum of collaborative behavioral relationships based on internal division of labor and cooperation, and is an institutional and structural arrangement for creating and providing services. As a form of team organization, it is both a substitute for individual service modes that have considerable limitations in terms of resources and service capabilities, and a substitute for fully marketized service modes with relatively high transaction costs. With the development of the Internet, data-intelligence technologies, and so on, library organizations have become increasingly open and marketized, transforming toward intermediary organizational forms such as library consortia, service networks, service systems, service ecosystems, and service platforms. According to the interpretation of the transaction-cost school, the boundary of a library organization depends on the comparison between interorganizational

costs and interorganizational transaction-cost savings; when the two are equal, the scale of the library is optimal.

From a management perspective, the library is a physical transformation mechanism in which service elements are input into service outputs. By means of certain management measures, and through certain physical transformation processes, demand information, resources, technologies, spaces, and other elements are effectively integrated and utilized to form corresponding services; the process of creating, producing, and providing this service is precisely the process by which value is formed and increased.

Different perspectives lead to differing interpretations of the library. Yet essence concerns the question of “what it is” rather than “what it is not” ; it is a high-level generalization of the special attributes by which a thing differs from other things, and is the intrinsic, long-term, and stable fundamental property of the thing. To understand the library, one should try to know or approach its essence. Liu Jun dialectically analyzed such meta-questions concerning the essence of the library as “being” and “non-being,” “yes” and “no,” “movement” and “stillness,” and “one” and “many,” arguing that the essence of the library is actual and generative; that it is a factual rather than a value question; that it is a unity of universality, particularity, and individuality; and that, although it has stability, it is also changing^[4]. However, he did not provide an answer to what the essence of the library is.

Libraries originate in practice and return to practice. Practice is the primary criterion for testing views of the essence of the library^[4]. In general terms, the domestic library-science community has basically interpreted the function of the library as its essence^[5]. Business historian Alfred D. Chandler held that the essence of organization is coordination. Management scholar Hamel held that the essence of organization is capability. Although these two views start from different points, in substance they are consistent: through effective management, collaborative synergy is achieved, organizational capabilities are enlarged, and organizational performance is improved. In this sense, **the essence of library organization is the services formed through the management of librarians, demand information, resources, technologies, spaces, and other elements.**

capability. This service capability is directly related to service performance; when the specific service elements are more effective, it may be expressed abstractly as $Q = Mf(R, F, C/I)$ [6].

As a social construct, the library is a social existence distinct from other things and unique; its essence is singular. As a living organism, however, this singular essence changes as the environment changes. Its evolutionary character does not negate its uniqueness. The essence of the library is both a question of value (what ought to be done) and a question of fact (what it is and what specifically is to be done); it is an organic unity of subjective cognition and objective existence. As library organizations become increasingly marketized, their ser-

vice capability has gradually shifted toward the service capabilities of alliances, networks, systems, service ecosystems, and service platforms. The core of capability has gradually changed from service-operational capability (emphasizing human initiative / satisfying standardized needs) to service-innovation capability (emphasizing human creativity / satisfying personalized needs), so as to respond effectively to environmental uncertainty and to the challenges of service innovation.

3 Library Science

3.1 The Practical Roots of Library Science

Traditional libraries are often regarded as book/knowledge repositories. The responsibilities of librarians are to keep books well and to perform the work of moving books, accessioning them, searching for them, lending them out, and recording them. From this arose the costs of library-building construction, such as site selection, design, construction, and decoration, as well as operating and maintenance costs composed of building maintenance, librarians' wages, and book preservation. With the emergence of the new-type library, the types and numbers of readers and the volume of borrowing and reading all increased significantly; the scale of library buildings expanded day by day, and the types of services multiplied. Libraries needed to receive many different kinds of readers in large numbers and to satisfy various complex needs extensively and rapidly. As a result, the division of labor in library work became increasingly fine-grained, and the professionalism of overall library management was increasingly emphasized. Attention had to be paid not only to the construction of the building, the overall layout, and the design and arrangement of shelves, but also to the use of various specialized technologies or methods to carry out acquisition, classification, cataloging, bibliography, circulation, and other work. The library gradually evolved into a "book-processing warehouse." In this way, not only were traditional building-construction and operation-and-maintenance costs generated, but also large amounts of resource purchase costs (the total price of resources), resource acquisition costs (tendering costs, travel expenses, etc.), and new operation-and-maintenance costs (costs arising from classification, cataloging, electronic-resource maintenance, and other work). Librarians not only had to preserve and maintain books, but also to organize and coordinate resources, technologies, spaces, and so forth; to anticipate, guide, create, and satisfy readers' needs; and their professionalism increased day by day. They gradually evolved into an irreplaceable profession. Dewey discussed this in detail in his article "The Profession of Librarianship" [7].

Schrettinger stated clearly in the preface to the first volume of *Textbook* that "he was opening up an entirely new path," namely, consciously rejecting the knowledge system concerned with books themselves and exploring issues of library construction and management. He believed that the basic task of librarians was to turn collected books into a library with special functions; this required practical knowledge built on the basis of specialized coursework, and he named this

course library science [8]. This shows that Schrettinger' s creation of library science possessed a high degree of theoretical self-consciousness [9]. Library science condensed Schrettinger' s rich experience and deep reflection over half a century concerning library construction and management, and bore the distinctive characteristic of having theory originate in practice and in turn guide practice.

For a discipline to make truly meaningful research progress, first, it must carry out enterprising exploration and open up a new direction and a new field; second, it must counter-

intellectual entanglements, to discard the false and preserve the true, and to restore matters to their proper sources—for example, philosophers have repeatedly asked, “What is philosophy?” By comparison, reflection on fundamental questions may be more valuable than mere progress.

Looking to the past, some scholars have questioned the scientific character of Schleiermacher' s naming of library science, and have blamed the confusion surrounding the object of study in domestic library-science research on Schleiermacher' s “invention,” regarding it as a “tragedy” [10]. If library science had been directly described as “library management studies,” perhaps some later doubts would not have arisen. Yet one regrettable reason is that management as a discipline was not basically and formally established until the publication of Drucker' s *The Practice of Management* in 1954. Against the background of that time, Schleiermacher' s invention of the term “library science” posed no major problem in either form or content—or, one might say, posed no problem at all. Schleiermacher defined library science as “the sum total of all propositions required to conform to the purpose of library organization,” which was also relatively appropriate. The definition also rather clearly indicated the object of study of library science, and implicitly contained such disciplinary attributes as interdisciplinarity, applicability, and contextual dependence. It is only that later generations did not adequately understand Schleiermacher' s original intent, nor did they adequately integrate it with the academic ideas of Ebert, Edwards, Ranganathan, and others.

The development of a discipline is often also a process in which existing ideas are diffused/interpreted, theories are iterated/upgraded, and systems are deconstructed/reconstructed. Whether one calls it library science, library management studies, or something else, these are merely formal questions of disciplinary nomenclature, bearing their historical marks and limitations. Even if we change its name to information management studies or some other designation, after several decades the historical limitations of the new name will likewise become apparent. Of course, in the author' s view, reducing library science to information resource management (studies) is in fact inappropriate. History is unlikely to provide an ultimate interpretation of this social science; we should do our utmost to understand and improve it, even though at every stage it is impossible for us to make it perfect. When we are perplexed by the present and bewildered about the future, we usually need to look back at the path by

which we came, returning to the “original aspiration” and “starting point” of library science as created by Schleiermacher, Ebert, Ranganathan, Danton, and others. By properly understanding and integrating the library-science thought of earlier sages, and by rethinking book history, library history, and the history of library thought, we may come closer to the truth of the discipline’s most fundamental questions. This may be able to guide us through the fog, lead us out of perplexity, help us find the road to the future, and enable library-science research to move forward on the correct track.

Facing the future, the path of knowledge accumulation in a discipline is, on the one hand, the deepening of its own professional knowledge and, on the other, the intersection and integration of knowledge from different specialties. In the domain of deepening professional knowledge, if library science is to establish itself, it must enrich and improve its own theoretical knowledge system; strengthen theoretical and applied research on library management and library professional knowledge; balance the relationships between humanistic literacy and technological application, and between value rationality/direction and instrumental rationality/methods; and build a solid disciplinary edifice for library science with its own knowledge system at the core. In the domain of cross-integration, for library science as an interdisciplinary field, complete dependence on the deepening of its own professional knowledge is impossible and unrealistic. Only through extensive intersection and integration with related disciplines can it better discover problems, analyze problems, and solve problems, and ultimately provide new ideas and methods for resolving library problems.

3.2 The Knowledge Attributes of Library Science

Generally speaking, knowledge consists of propositions or public experiences that can be widely understood, recognized, and accepted by people, and broadly includes phil

—knowledge, scientific knowledge, technical/methodological knowledge, and product/practical knowledge (for example, the experience and techniques of workers doing work and farmers cultivating land). Among these, philosophical knowledge requires rigorous logical reasoning but is difficult to verify experimentally; scientific knowledge and technical knowledge can be verified through experiments. Scientific knowledge tends toward uselessness and is pure knowledge, whereas technical knowledge tends toward usefulness, has potential purposiveness and value, and is impure knowledge; practical knowledge is tacit knowledge combined with specific situations and has real purposiveness and value.

- (1) Library science is “comprehensive” knowledge. In theory, library science is an interdisciplinary field, and its basic knowledge structure consists of managerial knowledge and professional knowledge. Among them, managerial knowledge is the foundation of the entire knowledge system. Therefore, Shera, Egan, Panizzi, Edward Evans, Ranganathan, and others have gen-

erally emphasized the managerial-disciplinary attribute of library science, and Dewey constructed a modern knowledge system of library science centered on library administration and management^[11]. Without managerial knowledge, the theoretical knowledge system of library science would be incomplete and its foundation unstable; apart from managerial knowledge, the application of professional knowledge would lose its “soul,” and all services would be unable to take place, develop, or advance in a spiral manner, nor would they be able to effectively guide library practice. In addition, library science naturally also includes disciplinary knowledge such as library philosophy, library psychology, library economics, and computer applications. In practice, librarians also need to understand the basic knowledge of the disciplines they serve, while subject librarians need to be proficient in the professional knowledge of the disciplines they serve, combining breadth with professionalism. In addition, all librarians should master application skills in computers and intelligent agents, that is, complete the tacit transformation of explicit knowledge.

- (2) Library science is “intermediary” knowledge. Other disciplines are specialized knowledge that creates understanding of the world, transforms the world, and settles human life, whereas library-science knowledge cannot directly help humanity understand the world, transform the world, or settle human life; therefore, it should not exist alone. But it can efficiently and systematically transmit previously created textualized knowledge to every member of society who needs it, promoting the socialization of knowledge. **In terms of knowledge attributes, library science is knowledge that creates ways to effectively activate, mobilize, acquire, integrate, and use knowledge; it is “intermediary” knowledge, or “bridge” knowledge, that creates solutions to the interface problems between knowledge creation/supply and knowledge use/demand.**
- (3) Library science is “applied” knowledge. Library science must be studied/researched for practical use; applicability is the fundamental attribute of library science. Therefore, generally speaking, library-science knowledge is not pure, but has clear purposiveness and value. Only through library practice can the theoretical knowledge and applied knowledge of library science be transformed into contextualized practical knowledge, into tacit knowledge and skills, promoting the storage, dissemination, utilization, and re-creation of knowledge from other disciplines and realizing the socialization of individual knowledge, thereby embodying the value of library-science knowledge. The process of application is also a process of management: it uses managerial knowledge to drive professional and technical knowledge, and integrates it into corresponding skills, so as to activate, mobilize, acquire, integrate, and use knowledge from other disciplines. First, it clarifies why to apply (Why), who applies (Who), how to apply (How), when to apply (When), where to apply (Where), and the purpose of application (Objective), among other contents—that is, 5W1H1O

—which depends on planning capability; second, it coordinates librarians and raises resources, technologies, space, and so on, which depends on organizational capability; third, it is the specific implementation process, that is, the concrete application of professional technologies/methods—

application process. This depends on professional and technical competence or concrete implementation capability; at the same time, process control must be strengthened during application, which depends on control capability; moreover, all of the above processes are carried out under the effective leadership of managers, which depends on managers' leadership capability (self-management depends on self-leadership capability). In other words, all librarians must possess both managerial competence and professional competence, and on that basis promote, at the practical level, the socialization of knowledge from other disciplines.

4 Legitimacy

4.1 The Legitimacy of Libraries

The existence of libraries must simultaneously possess two kinds of legitimacy^[6]: first, social legitimacy. They must be established in accordance with laws and regulations, and must operate lawfully and in compliance with rules; they must not violate social ethics or professional ethics. For example, the *UNESCO Public Library Manifesto*, adopted in 1949, stipulates that public libraries should provide equal services to all members of the community and be completely free and open. Second, market legitimacy. In the process by which libraries provide services to readers, the service outcomes must be effective, satisfying both internal and external stakeholders centered on readers; at the same time, the service process must be efficient, so that service costs are lower than social returns. Social legitimacy is a question of right and wrong, whereas market legitimacy is a question of value; neither can be lacking.

In fact, on the basis of emphasizing the importance of readers and resources, earlier scholars such as Ranganathan, Dewey, and Dziatzko focused their discussion precisely on the legitimacy of libraries, especially market legitimacy. For example, Ranganathan regarded “speedily satisfying all documentary needs of readers” as the highest principle of the library. Dewey held that books, pamphlets, and periodicals should be selected, purchased, processed, catalogued, indexed, and managed by the best and most economical methods, so as to provide the best reading materials to the greatest number of people at the least cost^[12]. In the *Five Laws of Library Science*, with respect to social legitimacy, Ranganathan pointed out that, in order to guarantee equal rights to reading, the public-welfare character of libraries must be ensured^[13]; with respect to market legitimacy, Ranganathan put forward a series of requirements: collections must follow the “principle of minimum space” and the “principle of minimum cost”; the role of the library must be fully brought into play, finding corresponding readers for books, rather than leaving books in a state of long-term or

permanent “slumber” ; library managers must accurately grasp readers’ needs and adopt measures such as reference consultation and reading promotion, so as to bring the functions of all collected books into play as fully as possible; readers’ time must be saved through measures such as cataloguing, classified shelving, and open-shelf systems, making it convenient for readers or librarians to locate books; efforts must be made to raise the turnover rate of books^[14]; at the same time, the library is a growing organism that requires continuous change and self-transcendence^[15].

Whether Ranganathan’s “highest principle,” Dewey’s “method,” or Ranganathan’s “requirements,” all originate from the goals of the library. Their common premises are: (1) the scarcity and value of knowledge resources; (2) readers’ right to receive services equally and free of charge and to obtain the knowledge they need; and (3) the library’s historical responsibility to promote equity in knowledge, to bridge the knowledge divide between knowledge creators and knowledge demanders, and to advance the development of human civilization. None of the three can be lacking. Because resources/supply and readers/demand usually cannot be fully integrated—namely, readers cannot completely possess the resources they need—this provides an opportunity for the existence and legitimacy of libraries: on the one hand, libraries must operate around resources, doing a good job in building, arranging, maintaining, designing, and deploying library premises and facilities, as well as in acquisition, classification, cataloguing, classification, circulation, and other work, so as to meet needs at the lowest possible cost, with high efficiency, high quality, and without redundancy.

...when they are needed and providing the required types and quantities of services; on the other hand, libraries must revolve around readers, understanding, interpreting, anticipating, creating, and guiding readers’ needs.

Technologies such as the Internet, big data, and intelligent agents have eliminated temporal and spatial distance, thereby making it convenient for readers to obtain resources directly. Therefore, looking to the future, some scholars are full of doubts about the prospects of libraries^[16]. Against the backdrop of open access, some leading readers who have mastered new technologies can bypass libraries and obtain some resources directly from knowledge creators or resource suppliers, thereby transforming the library’s role as a complete intermediary into that of a partial intermediary, as shown in Figure 2. However, unless at least one of the three “common premises” mentioned above no longer exists—in particular, in terms of social legitimacy, if governments or private institutions no longer fund libraries, then libraries will withdraw completely from the historical stage; in terms of market legitimacy, if readers themselves can obtain resources freely and at zero cost, and public-interest libraries no longer have any service advantage and cannot achieve “effective results and efficient processes”^[6], then libraries will have no necessity to exist. Otherwise, as a public-interest intermediary service institution with specific professional skills, libraries will still exist in the visible future. Admittedly, as a “growing organism,” libraries in different historical periods are not entirely consistent in structure and function. The

Figure 2. The partial intermediary role of libraries

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names, service modes, and service content of future libraries may undergo some changes: for example, some libraries may be renamed information centers; some services may shift from offline to online; libraries may move from an emphasis on resource services to equal emphasis on resource services and technical support (similar to a user-toolbox model), and so on.

Figure 2 The partial intermediary role of libraries

4.2 The Legitimacy of Library Science

Library science originates from library practice and serves library practice. Any work of a library, whether service innovation or service operation, requires theoretical guidance and corresponding theoretical research: concepts must be established; reasoning, judgment, summarization, generalization, and refinement must be carried out; the general laws and methods of library operation must be grasped; and the first principles and underlying logic of various services must be mastered (admittedly, the first principles and underlying logic of specific creative services are usually not easy to grasp). Only by designing the corresponding “ideas” or “forms (causes)” can library work in turn be guided in practice; in this way, innovation can be effective, services concise, and costs economical. Yet it must be acknowledged that the subject of cognition can only be human beings. We have neither the “eye of God” nor absolute rationality, nor is it possible for us to have an all-encompassing perspective and thereby exhaust the “truth” of library science—especially for such a complex discipline as library science. But this does not prevent us from striving to approach the “truth” and to understand, explain, and respond correctly to library work.

The disciplinary legitimacy we usually speak of refers to theoretical legitimacy. Theoretical legitimacy is an academic standard that a discipline should attain: namely, having an independent object of study, distinctive research methods, and a complete knowledge system, and being able to gain general recognition from the academic community. However, applicability is the core attribute of library science. Library science must attach importance to applied research, or take applied research as its core; in particular, it must invent and introduce various advanced professional technologies and methods. Moreover, library science has an extremely strong purposiveness: the integration of study/research and use is determined by its attribute as an instrumental discipline; theory, technology/methods, and practice must remain consistent, and must be able to provide intellectual guidance and technical support for solving problems in library practice. Therefore, in addition to theoretical legitimacy, library science should also possess applied legitimacy.

4.3 The Relationship Between the Two

Scholars generally emphasize the applied legitimacy of library science, directly linking the definition of library science with the purposes of the library, and establishing a direct route between theory and practice. This situation is absolutely unique among all disciplines. For example, S. R. Ranganathan defined library science as “the totality of all propositions required to accord with the purposes of library organization.” He particularly pointed out that “the purposes of the library are the highest principles of library science; they are more important than the definition of library science” [8]. Abbott pointed out in *The Education of Librarians* that library science is the sum of all the knowledge and skills librarians need when performing library work tasks [17]. The entirety of Ranganathan’s *Five Laws of Library Science* does not introduce library science as a discipline; rather, it expounds the service tenets and specific requirements of the library. Therefore, it is not the “Five Laws of Library Science,” but the “Five Laws of the Library.” That is to say, theoretical research and applied research must serve the organizational practice of libraries; they must “accord with the purposes of organization,” fully bring into play the intermediary function of libraries, connect the knowledge barrier, penetrate the knowledge divide, level the information gap and the knowledge gap, and be able to rapidly, systematically, markedly, and universally raise the level of wisdom of humanity as a whole.

Libraries and the library came first; library science came afterward. The fundamental reason for the creation of library science lies in its practical foundation, in the value of knowledge, and in the importance of libraries in the collection, storage, and dissemination of knowledge. If library science can establish a relatively reliable and complete knowledge system, and can grasp the first principles and underlying logic of the various service activities of libraries, it will help guide library practice and strengthen the legitimacy of libraries. If the legitimacy of libraries exists, then library science ought to exist. This is also why the author calls for giving priority to resolving the two issues of library governance—“selection of library directors” and “admission of librarians” [18]: “to save libraries is to save library science.” If libraries do not possess legitimacy of existence, if the knowledge barrier no longer needs to be filled by libraries, then library science has no necessity for existence, nor does it need to guide any library practice. In other words, the legitimacy of libraries fundamentally determines the legitimacy of library science; the relationship between the two is shown in Figure 2. At present, interaction between academia and industry is becoming increasingly frequent and close, and more and more researchers in library science are also practitioners in libraries. Therefore, library science research and library practice can be better integrated, thereby helping to enhance the legitimacy of libraries and of library science.

Figure 2 Relationship between the legitimacy of library science and the legitimacy of the library

Figure 2. Relationship between the legitimacy of library science and the legitimacy of the library

Figure 3: Figure 2. Relationship between the legitimacy of library science and the legitimacy of the library

5 Conclusion

The library is an open, organic system composed of resources, technology, space, the spirit of craftsmanship/innovation, and management; its essential nature is a dynamically evolving service capacity. The value and scarcity of knowledge resources are the major prerequisites for the existence of libraries; readers' demand for knowledge resources is the minor prerequisite for the existence of libraries. Libraries perform an intermediary function between knowledge resources and readers in order to bridge the knowledge gap between knowledge creators and knowledge demanders. Their legitimacy includes social legitimacy and market legitimacy. **Library science is a learning concerning human beings; it is a learning concerning human nature, faith, morality, and freedom; it is a learning concerning the management of people.** On this basis, it explores the optimal allocation and effective use of scarce service resources, and its legitimacy includes theoretical legitimacy, applied legitimacy, and practical legitimacy (i.e., the legitimacy of library science). Libraries and library science are connected in one continuous line; theoretical research and organizational practice interact and promote one another, continuously creating and satisfying readers' needs, promoting the storage, dissemination, utilization, and re-creation of knowledge, and advancing the continual progress of reason, morality, and civilization.

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Note: Figure translations are in progress. See original paper for figures.

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