Library science is a discipline centered on human beings.

Authors: Zhang Yongcheng, Hao Dongdong, Song Yipin, Wang Jiamu, Hao Dongdong

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Abstract

Library science is essentially library management science, a discipline centered on human beings. Librarians constitute the sole subject and core object of library management, with the assumption of their human nature being the first principle of library science. Readers represent the sole research subject on the demand side, serving as key creators of libraries and the sole criterion for service evaluation. They participate in library governance and management, engaging in mutual dependence, mutual creation, value reinforcement, and integration with librarians, thereby co-evolving. As an intermediary variable connecting librarians and readers, service is an undertaking with librarians and readers as dual axes. Specifically, service innovation represents the unity of the dual natures between librarian creativity and reader demand individuality, whereas service operation constitutes a process of frequent interaction, iterative optimization, and organic coupling between librarian manufacturability and reader demand commonality. During the transition from librarian creativity to manufacturability or from reader demand individuality to demand commonality, services become increasingly standardized, shifting from satisfying the individualized needs of a few readers to meeting the standardized needs of a broader readership.

Full Text

Preamble

Library Science is a Discipline Centered on People

Zhang Yongcheng[1], Hao Dongdong[2], Song Yipin[1], Wang Jiamu[1]
(1. Shandong University Business School, Weihai, Shandong 264209; 2. Harbin Institute of Technology (Weihai) Library, Weihai, Shandong 264209)

Abstract: Library science is essentially library management, a discipline centered on people and their interactions with information. Librarians are the sole subject and core object of library management, and the humanistic assumption of librarians constitutes the primary nature of library science. Readers are the sole research subject on the demand side, the key creators of the library, and the sole measure for evaluating services. They participate in library governance and management, interdependent with librarians, co-creating, mutually reinforcing values, mutually integrating, and evolving together. As an intermediary variable connecting librarians and readers, service is a career with librarians and readers as dual axes. Among them, service innovation represents the unity of librarian creativity or reader demand individuality, while service operation is a process of frequent interaction, iterative optimization, and organic coupling between the manufacturing nature of librarians and the common needs of readers. In the process of transitioning from librarian creativity to manufacturing, or from reader demand individuality to commonality, services become increasingly standardized, shifting from meeting the individual needs of a few readers to meeting the standardized needs of more readers.

Keywords: Library science; Librarians; Readers; Service

1 Introduction

Chinese library science theory has traversed stages of belated origins, persistent wandering, difficult beginnings, prolonged reconstruction, breakthroughs amid confusion, and brilliance in the new century [1]. Particularly after China' s accession to the WTO, accompanied by rapid economic and higher education development, China's library science theoretical system has become increasingly sophisticated, library science education has flourished, and the library profession has thrived. However, for many years, domestic theoretical circles have not recognized the management discipline attributes of library science. Whether its parent discipline—Library, Information and Archives Management, or Information Resource Management—belongs to a particular disciplinary category or stands alone remains undetermined and lacks unified consensus. Especially concerning, the strategic coordinates of Chinese library science research objects have continuously drifted, sometimes focusing on the library organization itself, sometimes on the application of new social technologies within libraries. The result has been unclear disciplinary positioning, questionable research objects, absent foundational theory, missing meta-theory, and undefined primary nature. This approach fails to place people at the center of library science' s strategic coordinates, neglects the core value attributes of management in library science research, and results in an unstable theoretical foundation.

An unstable foundation leads to collapse. For Chinese library science, the greatest challenge may not be the increasing disregard for humanities disciplines (including library science), nor the impact of digital intelligence trends or the renaming of the first-level discipline from Library, Information and Archives Management to Information Resource Management. Rather, the foremost pri-

ority should be placing library science theoretical research on the correct track—clarifying its disciplinary attributes, research objects and content, enriching research methods, perfecting its knowledge system, solidifying the legitimacy of its theoretical foundations, and promoting the sustained and healthy development of Chinese library science.

2.1 From Library Practice Perspective, Library Work is Management-Centered

Libraries play crucial roles in knowledge and information dissemination, technological development, and civilizational advancement. However, resources are externally sourced, technology is essentially imported, and spaces are created by affiliated institutions. Libraries themselves do not produce any tangible goods. Their value lies in providing needed services to readers through systematic work such as acquisition, classification, cataloging, collection management, and circulation. All services, whether operational or innovative, are built upon management and begin and end with people. Management permeates all areas and levels of library work, becoming a foundational, integrative, and coordinating function that creates appropriate organizational order—order among people, materials, and affairs—thereby: (1) optimizing allocation and effective utilization of resources, space, technology, and staff under given service technology and management levels; (2) discovering, nurturing, stimulating, and releasing librarian creativity to drive service innovation; and (3) attracting external talent, useful resources, and advanced technology [2].

Since service capacity and performance are directly related to the integration and utilization of resources, technology, and space, the essence or core basis of library organization is service capacity, particularly service innovation capacity. Management serves as an "amplifier" of library service capacity: without management, resources, technology, and space within libraries remain scattered and cannot form effective services; without management, no synergy exists, and library service capacity cannot be amplified, resulting in "1+1=2" and negating the necessity of library organization; without management, librarian creativity cannot be effectively stimulated and released, preventing service innovation and continuous improvement; without management, external talent, resources, and technology cannot be absorbed into libraries, hindering continuous optimization of structural elements and effective service activities.

Multiple factors account for the emergence of library science, with the core reason being the importance of libraries and their work [2]. Through mutual promotion between theoretical research and organizational practice, library science and the library profession continuously develop and prosper. As Butler stated, any understanding of society must include an interpretation of libraries as fundamental social elements and their role in public life, with library science applicable whenever related phenomena are discussed in social sciences [3]. American library science and librarianship, though not as historically rooted as Europe' s, managed to catch up and achieve better development by adopt-

ing a pragmatic approach: marketizing library services, corporatizing library management, and professionalizing librarians. In essence, if library work is done well and libraries become indispensable, library science gains practical legitimacy. Conversely, if libraries lack value, library science loses its practical foundation. In an era of universal higher education, increasing importance of learning, and pervasive noise, libraries—as convergence points for resources, information, knowledge, and culture—are not becoming less important but more so. Whether for resource access, learning, communication, leisure, or simply seeking a familiar, tranquil, personal, and free space, people' s hearts increasingly yearn for what should rightfully be a "temple-like" library.

2.2 From Library Intellectual History Perspective, the Research Object Should be "Management Theory"

Definitions are concise expressions of essential nature. Schrettinger defined library science as the totality of all propositions required for library arrangement purposes. This definition remains appropriate as it explains three important aspects: (1) library science research should be based on library organizations, rooted in the particularities of libraries and their operations; (2) library science studies library arrangement, not merely book arrangement or libraries themselves; and (3) library science research content is complex, comprising all propositions about library arrangement. From today' s perspective, Schrettinger' s "arrangement theory" is essentially "management theory," aimed at effective acquisition, optimal allocation, and best utilization of book resources. British scholars Panizzi and Edwards were also proponents of "management theory." The Columbia College Library School' s mission was to train professional library management talent, with curricula oriented toward library business management. "Management theory" reached its peak during Dewey' s "library economy" period, achieving brilliant practical success.

Chinese and American library science share common origins [4]: American librarianship trained Chinese pioneers such as Dai Zhixian and Hong Youfeng, and early curricula at Boone Library School largely followed American models. China' s early library science development also embraced "management theory." Although Hong Youfeng' s *Library Organization and Management* contains no explicit mention of "management" throughout its text [5], it essentially discusses library management—whether cataloging, shelf design, or book placement, all aim to "keep things in perfect order" [6].

The "library theory" or "institution theory" treats the library as library science' s sole research object. Liu Guojun' s "element theory" treats specific constituent elements of libraries as research objects [7], essentially a form of "institution theory." Karstedt' s "knowledge/resource/information theory" interprets libraries from these perspectives, viewing them as knowledge/resource/information organizations, collections, or communities—merely a variant of "institution theory." Theories of "cause," "contradiction," and "law" fail to reveal the particularity or essential attributes of library science' s research object; rather, they represent

extensions of "institution theory," still treating libraries as the sole research object. Lai Maosheng argued that disciplinary names should accurately reflect basic nature or essential attributes, concisely reveal research problems, and clearly distinguish themselves from related disciplines [8]. "Library science" easily leads to the literal interpretation that it is merely the study of libraries, mistakenly assuming libraries themselves are the research object. While libraries are indeed one research object, treating the library organization as the sole research object is self-limiting, neglecting human subjectivity, centrality, creativity, and purposefulness, narrowing and solidifying the discipline' s research domain, limiting its development and imagination, and forfeiting its value-creating attributes.

The "technology theory" of Ebert and others emphasizes technology' s central role in library science research. While library science should certainly attend to new technologies and their applications, technology application is merely one part of applied research, not even the core of applied research, and certainly not the entirety of library science' s research object. "Technology theory" neglects the foundational and central status of theoretical research, sacrificing essentials for trifles, essentially representing tool-subject theory—a specific manifestation of fetishism.

2.3 From Parent Discipline Perspective, Library Science Should Belong to Management

Dewey, Ranganathan, Butler, and others considered library science a social science. However, whether library science belongs to a specific disciplinary category or whether Library, Information and Archives Management stands alone remains undetermined. Library, Information and Archives Management is management based on libraries, information, and archives—management of libraries, information, and archives. Unlike business management, it relies on library, information, and archives organizations, with correspondingly different management methods and approaches. As part of information management, information resource management concerns how to manage information resources for effective acquisition, optimal allocation, and full utilization—essentially an expanded version of traditional "book management," extending from book resources to general information resources.

The main changes in renaming the first-level discipline from Library, Information and Archives Management to Information Resource Management include: (1) expanding research objects from library, information, and archives organizations to general organizations, removing disciplinary characteristics; and (2) narrowing research content from managing people (librarians), affairs (information activities), and materials (information resources) to managing materials alone, excluding the more important management of people and affairs. Against a backdrop of disciplinary cancellations, renamings, new establishments, and reorganizations, changing Library, Information and Archives Management to Information Resource Management is worse than not changing it at all—this "formal issue" should be left to a wiser future.

Lai Maosheng implicitly suggested that information resource management basically belongs to management disciplines [9], with the implication that it "basically" might not belong to management disciplines—the key perhaps lies in the standard of "basically." The Ministry of Education' s *Undergraduate Major Catalogue* (2025) explicitly places "Library, Information and Archives Management" under the management discipline category, which includes not only library science and archival science but also information resource management. Library science professional degrees often confer management degrees. Library science also shares attributes of interdisciplinarity, applicability, and context-dependency with other management disciplines. Nearly all introductory library science books in China interpret research objects through a management lens, and increasing numbers of academic papers discuss library strategy, culture, marketing, customer relationship management, and resource vendor management. Whether Library, Information and Archives Management, information management, or information resource management, these are undoubtedly studies of (organizational) management problems and should belong to management disciplines. Regrettably, for decades, domestic library science has remained outside management, never placing people at the center of library science research nor making management the (most) core theme.

Some schools place library science under information management or information science, or even establish independent colleges or departments, either due to strong disciplinary strength (e.g., A-level discipline evaluation) or to enhance technological application and value-creation attributes to secure more resources and ensure adequate attention and better development. Meanwhile, through a series of "informatization" reforms, they promote the "management engineering" or "information engineering" of library science, transforming the traditional "knowledge warehouse keeper and porter" into an "information analyst and decision-making participant"to enhance disciplinary status, discourse power, and legitimacy against the backdrop of digital intelligence and science-over-arts preference. The prominent problem is the failure to reflect the distinctive characteristics of libraries and their management.

3.1 Classification by Research Content Attributes

Library science' s research object encompasses not merely libraries, nor merely book management or technology application, but rather covers libraries, management subjects, management itself, management objects, and the management of all people, materials, and affairs within libraries. Against an open background, management overflows library organizations, extending to resource vendors, readers, and other stakeholders [2]. By research content attributes, library science research includes theoretical and applied content, as shown in Figure 1 [Figure 1: see original paper].

Figure 1 Library Science Research Content

Theoretical content primarily includes three aspects: (1) *What it is*, i.e., conno-

tation, reflecting the essence or unique attributes of a specific research object. For example, what is a library? Some say it replaces private book collections, others say it replaces market-based services, some view it as a team service model, while others consider it a service transformation institution. (2) *What constitutes it*, i.e., extension, referring to the total composition or scope of a specific research object, which has an inverse relationship with connotation. For example, libraries include elements such as books and periodicals, technology, space, service equipment, staff, functional systems, vision, mission, and values. (3) *Why it is*, i.e., the reasons or basis for the aforementioned "what it is" and "what constitutes it." Theoretical content belongs to the "metaphysical" or "Dao" level—pure, free, knowledge-for-its-own-sake scholarship without utilitarianism or purposefulness. It forms the foundation and core of library science; only with a solid core can the discipline' s foundation be firmly established. Library science constituted by theoretical content is theoretical library science.

Applied content explores how theory transforms into practice, primarily including what should be done and how it should be done—both essentially normative questions about library decision-making (including factual and value decisions) to address doing the right things (direction) and doing things right (methods) in library practice. The practical question of how things are actually done requires addressing specific contexts in practice. What should be done depends primarily on library values (values being perspectives or attitudes toward value, a concrete manifestation of cognitive ability or level), i.e., what is valuable, focusing on economic or social benefit feasibility analysis—contrasted with what lacks value. How it should be done depends primarily on library ethics, i.e., what is reasonable and appropriate, focusing on technical feasibility analysis—contrasted with what is inappropriate or even illegal. Applied content belongs to the "form," "technique," and "transformation" levels, possessing potential utilitarianism, value, and purposefulness, thus making it impure, unfree, knowledge-for-application scholarship. Library science constituted by applied content is applied library science.

3.2.1 Library Operations Management

Library operations management is a discipline studying service operations management. In reality, this "affair" of service operation centers on people, targeting efficiency, cost, quality, and other phased material or materialized service outputs to meet standardized needs of more readers and achieve good social benefits.

Library operations management operates against a short-term, deterministic background, with service operations as its work content, viewing resources or technology as the primary productive force of services. It advocates objectivism and objective value theory, upholds collective rationality, and employs a "bystander" perspective from managers to examine people and affairs within libraries from the overall library interest. It practices consequentialist thinking, constructing optimal goals and plans under determined conditions and reverse-

engineering subsequent service processes. It neglects individual rationality and sensibility, suppresses individual independence, autonomy, freedom, and creativity, treating librarians merely as means to achieve library goals who need only obey. It emphasizes managerial and organizational functional management, advocates scientific management, and pursues procedural, standardized, and normalized management processes with top-down power and centralized structures, making managers "blame-shifters." It values professional or executive capabilities, focusing on doing things right, promoting craftsman spirit, attending to details, refinement, and subtle equilibrium, seeking static efficiency under "circular flows." Its management purpose primarily lies in constructing artificial order and seeking integration effects to optimize allocation and effective utilization of resources, technology, space, and staff under given service technology and management conditions.

3.2.2 Library Innovation Management

Only by recognizing, respecting, and releasing individual value can all other values be created. Library innovation management is a discipline studying service innovation management. Literally, it also concerns "affairs," but to successfully innovate services, librarians must be treated as ends in themselves, always centered on staff, discovering, nurturing, stimulating, and releasing librarian creativity, transforming creativity into innovative output. Library innovation management is essentially a discipline about people and a free discipline. Through rational reflection on librarians' human nature, needs, value, and other fundamental questions, it explores effective approaches to solving service innovation challenges. Therefore, it requires no human nature assumptions incompatible with librarians' freedom, creativity, and complex needs, nor does it "synchronize" heterogeneous dimensions of human endowments, needs, and motivations.

Library innovation management operates against a long-term, uncertain background, with service innovation as its work content, viewing people as the primary creative force of services. It advocates subjectivism and subjective value theory, upholds individual sensibility, and values librarians' intuition, curiosity, imagination, self-expression, and self-development potential, believing librarians should follow their inner voice rather than "bystander" artificial designs. It focuses on doing the right things, emphasizing the importance of foresight built upon information capacity, cognitive capacity, logical thinking, and imagination, promoting innovative spirit, seeking creative destruction and dynamic efficiency that breaks "circular flows." It practices causal thinking, advocates humanistic management, creates spontaneous order and perfects innovation mechanisms, and ignites librarians' innovative passion. Power flows bottom-up with decentralized structures, making managers "blame-takers"who assume more responsibility to reduce burdens on librarians, enabling them to continuously improve themselves through "learning by doing" and "doing by learning," overcoming various obstacles to service innovation. Its management value focuses on amplification effects—discovering, nurturing, stimulating, and releasing librarian creativity.

3.3.1 Research Priorities

Developing library science must both actively enrich and perfect its disciplinary knowledge system from different perspectives and reflectively correct course to solidify its theoretical foundation. Although scholars like Dewey and Butler have called for theoretical research to consolidate disciplinary theoretical systems, enhance legitimacy, and achieve disciplinary advancement, the interdisciplinary, applied, and context-dependent nature of library science collectively determines that it is a "downstream discipline" closely integrated with practice, whose theoretical nature is not particularly strong. Library science research need not overemphasize "lofty" theory; it only needs to be rooted in the particularities of library organizations, always placing people at the center of library science research, grounded in library science' s meta-theory—management principles, attentive to AI and other emerging technologies in libraries, and advancing synergistically on three fronts—people, management, and technology application—to discover, analyze, and solve problems well, approach the "truth" of library science, and properly address its interdisciplinary, applied, and context-dependent nature, thereby bearing real fruit and abundant harvests.

Future research priorities in library science include: (1) As an interdisciplinary field with genes from management, economics, psychology, philosophy, and computer applications, library science must trace its origins to clarify meta-knowledge and meta-theory to solidify its theoretical foundation, while overcoming single-discipline limitations through broad debate, panoramic examination, and cross-validation to systematically understand library science. Future theoretical breakthroughs should be sought in interdisciplinary intersections. (2) As an applied discipline—evidenced by most domestic and international literature focusing on applications, such as Schrettinger' s *Textbook of Library Science* and *Overview of Library Science*, Ranganathan' s *Five Laws of Library Science*, and Hong Youfeng' s *Library Organization and Management*—applied content is the focus of library science research. Future applied research should embrace digital intelligence trends, seeking breakthroughs in digital intelligence technology applications to guide library practice. It must be acknowledged, however, that some digital intelligence technologies (e.g., AI) remain immature, and different libraries have different circumstances; rushing headlong into adoption will inevitably lead to chaos and dispersion—the lessons are recent and clear. (3) As a contextual science, library science research must closely connect with practice, considering internal and external organizational contexts and the contexts of management subjects and objects. Future theoretical and applied research should explore differences and connections between library management/governance and other organizations, considering libraries' public welfare nature, weak inter-library competition, librarian characteristics, reader characteristics, and the particularities of reader-library relationships.

3.3.2 Research Paradigms

Butler emphasized the scientism paradigm in library science research, advocating scientific spirit and methods to enhance disciplinary scientificity and theoretical legitimacy, attempting cross-validation from sociology, psychology, history, and philosophy perspectives [10]. For library service operations, where environments and research objects are relatively determined, research scientificity can certainly be enhanced through hypothesis, modeling, and quantitative analysis, and AI tools can be used to summarize historical data, seeking optimal solutions under determined conditions to improve service efficiency, reduce costs, and enhance quality.

However, for uncertain environments, uncertain service innovation work, and uncertain librarians, emphasizing quantitative analysis based on mathematical methods often proves impractical. First, highly personalized inner matters such as human needs, desires, and motivations are unsuitable for quantitative assessment. Second, internal and external library environments, service innovation work, and librarian psychological activities are full of uncertainties, making mathematical models often unreliable. Third, inductive methods based on general sample data may not suit individual librarians. Emphasizing paradigm scientificity while divorcing it from specific contexts can lead to the opposite of science, becoming unscientific and anti-scientific. Reference should be made to Hayek' s *The Counter-Revolution of Science: Studies on the Abuse of Reason*; lessons from "mainstream economics" research paradigms should be fully absorbed. In other words, library science research requires not only scientism but also humanism paradigms. In service innovation research, experimental and deductive methods can start from individualist methodology, recognizing and respecting individual dignity and value, viewing people as the measure of all things, analyzing individual psychological needs, value orientations, and behavioral motivations, and exploring effective methods and approaches to stimulate and release librarian creativity.

4 Librarians

Library science is essentially library management science, the study of library management [2]. The subject of library management is people, and the object is primarily people as well. The integration, amplification, and aggregation effects of management are essentially behavioral effects of people. Only by managing people well can materials (resources, space, technology), affairs (services), and relationships with external stakeholders be well managed. Therefore, the core of library management is the management of library staff.

4.1 Human Nature Structure

Human nature is a complex and variable structural issue, including characteristics such as selfishness, goodness and evil, complexity of needs, rationality and sensibility, freedom, and creativity. Human nature is relatively obscure,

so closely related and more concrete needs are often used to represent it. In management fields, human nature assumptions such as economic person, social person, self-actualizing person, and complex person are all explained or defined from the perspective of needs. (1) *Selfishness.* Human nature is selfish; selfishness is a basic human trait. Seeking private gain, ignoring or denying one' s greed, ignorance, and mistakes, overestimating oneself and underestimating others—these are universal human nature and objective realities. Smith championed selfish human nature, arguing that pursuing private interest is the basic motive of human behavior. However, self-interest and altruism are not necessarily contradictory; selfishness can serve good. Almost all human interactions are guided by an invisible hand, requiring both self-interest and altruism. Altruism without self-interest rarely occurs; self-interest without altruism cannot sustain. As Kazuo Inamori stated, self-interest sustains life, altruism ensures longevity; altruism is advanced self-interest [11]. (2) *Goodness and Evil.* Human nature contains both good and evil; evil is the fundamental aspect, with Christianity' s "original sin" built upon an evil nature assumption. Therefore, systems and regulations are needed to suppress evil and promote good, with evil suppression as the prerequisite and baseline, upon which good promotion can be pursued. (3) *Complexity of Needs.* Whether "economic animal," "social animal," or "political animal," all refer to human needs. People have not only economic needs but also social, esteem, power, self-actualization, and surpassing-others needs. Human needs are complex and variable, with economic needs being the most basic and important for ordinary people. Without satisfaction of economic needs, other needs easily become castles in the air. Beyond economic needs, however, a minority differs, pursuing higher-level needs such as self-actualization and surpassing others. (4) *Rationality and Sensibility.* Rationality and sensibility are two related forms of human consciousness and two different approaches to discovering, analyzing, and solving problems. Ontologically, they are based on the relationship between "body" and "mind." Rationality corresponds to certainty, while uncertainty must rely on sensibility. Rationality determines the lower limit of service innovation, while sensibility determines the upper limit, jointly determining the process and outcome of service innovation. (5) *Freedom.* Human character is freedom; without people there is no freedom, and without freedom there is no person—freedom is the person themselves. Freedom is the most effective way to solve uncertain problems; it breeds imagination and promotes competition and survival of the fittest. All service innovation is built upon freedom; without freedom, librarians' potential creativity cannot transform into actual creative power. (6) *Manufacturing and Creativity.* The vast majority of ordinary people prefer tradition, meticulous refinement, and only a minority courageously break the status quo and embrace change. Manufacturing (i.e., craftsman spirit, from 1 to 1' ···from N to N') represents the psychological and behavioral inertia of librarians maintaining and focusing on tradition. After clearly grasping the underlying logic of services, through repeated interaction with readers, it promotes standardization of service products, technology, processes, management, and library organizations to meet readers' universal or common needs. Creativity (i.e., innovative spirit, from 0 to 1 or from 1 to N)

represents the psychological and behavioral tendency of a minority of librarians to embrace uncertainty, break tradition, and disrupt the status quo, driving creative destruction of service technology and products to meet individual needs of leading readers (leading adopters or leading rejecters). Sartre argued that human existence creates itself through free choice, and people must create value for their own existence [12]. Creativity is a noble human trait, the core characteristic of innovative librarians, and their fundamental expression of refusing mediocrity and being different. Creative need is an advanced need, proving one' s uniqueness and value through demonstrating creative talent. Theoretically, all librarians possess creativity, with unique endowments, interests, specialties, curiosity, and imagination—all having the material cause for creation. In reality, discovering and nurturing creative endowments requires continuous trial and error, tolerance for mistakes, and discerning leadership. Stimulating and releasing creativity requires transformational leadership, appropriate functional systems, and relaxed organizational atmospheres.

4.2 Human Nature Assumptions

Reasonable assumptions, reasoning processes, and conclusions constitute complete scientific forms, yet they often presuppose directly determined or self-evident ultimate premises. In other words, all disciplines have self-evident first questions or meta-questions, and library science is no exception. Library management objects include people, materials, and affairs; therefore, human nature, material nature, and affair nature (service characteristics) are the logical origins of library management. Material nature is determined, human nature is complex and variable, and affair nature depends on librarian human nature and reader demand characteristics, essentially being a concrete manifestation of human nature. Only by understanding human nature can affair nature be understood. Moreover, people are the core management object, the purpose of all activities, and the measure of all things. Therefore, the human nature assumption about librarians is the primary nature of library science. Following the logical chain of human nature—needs—values—ethics—choice/decision—action/execution, human behavior is constrained by ethics, values, needs, and human nature. Following first principles, all management measure designs must be based on reasonable human nature assumptions; any management measures contrary to human nature will be counteracted by it. Respecting human nature means respecting objectivity and upholding rationality.

The human nature assumptions of library operations management are: (1) focusing on standardized people or common aspects of human nature. Librarians are viewed as "economic animals,"economic persons, or "tool persons"—means rather than ends—revolving around resources and technology, which are considered the primary productive force of services; (2) focusing on the short term. Internal and external library environments are relatively determined, with sufficient information for all; (3) library managers are perfectly rational and "smartest," with service operation decisions following optimization principles under full in-

formation, enabling managers to design all optimal goals and plans. From a holistic methodology, it seeks to improve service efficiency, reduce costs, and enhance quality, meeting broader readers' standardized needs through scaled manufacturing services, with management measures primarily manifesting as "carrot and stick," combining rewards and punishments.

The human nature assumptions of library innovation management are: (1) focusing on individual people, addressing both common and individual aspects of human nature. People are the primary creative force of services. From an individualist methodology, people are treated as ends rather than mere means, valuing individual independence, autonomy, freedom, and unique endowments; (2) librarians have not only economic needs but also needs for self-actualization and surpassing self and others through creative work; (3) focusing on the long term. Internal and external environments and service innovation work are uncertain, with insufficient information for all; (4) due to environmental uncertainty, service innovation complexity, and limited human cognition, all librarians, including managers, are boundedly rational. Service innovation decisions are essentially made by librarians themselves. With incomplete information and insufficient rationality, decisions require combining rationality and sensibility, following satisficing principles, making optimal goals and plans unattainable. Managers' key tasks involve planning library strategy, creating good service innovation mechanisms, and providing logistical support for service innovation.

4.3 Basic Competencies

Wu Jianzhong argued that library science research should transform from "primarily solving collection-use contradictions"to a "people-oriented"philosophy [1], shifting from early resource and service-centered approaches to people-centered ones. All services, including "finding books," require librarians to complete. All problems within libraries are fundamentally human problems; only when human problems are solved can resource and service problems be fundamentally resolved. As Drucker stated, people deserve more attention than any concept [13]. Regarding librarian competencies, character is always paramount; integrity and kindness are the only indispensable conditions for all librarians (especially library leaders). Schrettinger believed that graduates from library schools would be able to build libraries that are proper, comfortable, and practical [14]. However, an educated person, even a highly educated scholar, cannot become a librarian without specialized learning, preparation, and practice [15].

Ranganathan believed every librarian should be enthusiastic, thoughtful, modest, promptly available to readers, and a psychologist skilled at understanding reader psychology and dealing with difficult readers [16]. Dewey considered librarians not as custodians but as active and progressive educational forces, like signposts always pointing the way for others. Butler believed librarians should study not only sociology and psychology but also history, especially the history of knowledge recorded in books and library history [17]. Schrettinger, Ranganathan, Dewey, and Butler all emphasized the necessity of librarian pro-

fessionalization and specialized education, considering erudition a prerequisite for librarianship, with breadth of knowledge being more important than specialized knowledge. Austin Dobson' s epitaph for Richard Garnett, one of the last century' s most outstanding librarians, perfectly 诠释 d the qualities a true librarian should possess: his learning was more extensive than anyone' s, he loved all learning in the world, and he was brother to every seeker of knowledge [18]. It must be acknowledged, however, that by the standards of Schrettinger, Ranganathan, Dewey, and Butler, some current librarians (especially leaders) still have considerable room for improvement in basic competencies.

Overall, the service capacity and standards of domestic library practice can hardly provide strong practical legitimacy for library science.

5.1 Reader Sovereignty

Schrettinger believed the library' s purpose is to quickly satisfy all readers' document needs [19]. Ranganathan' s first four laws— "books are for use," "every reader his book," "every book its reader," and "save the time of the reader" — place readers at the center, while the fifth law, "a library is a growing organism," emphasizes that libraries must continuously innovate to meet changing reader needs [20]. However, early book resources were too scarce and important. As Schrettinger stated, a library is a vast collection of books, and the supreme principle of library science is to find needed books as quickly as possible [21] —the ultimate goal and destination of all library and library science activities, and the eternal driving force for library profession and disciplinary development [22]. Therefore, in early libraries, book resources occupied the core position, and librarians sought to acquire more useful books. In the service supply-demand system, with libraries monopolizing book resources, libraries typically held dominant positions despite verbally proclaiming reader supremacy.

With the deep-rooted reader-first concept, widespread application of emerging technologies, and enhanced dispersion, availability, and accessibility of books and periodicals, the service supply-demand system has generally shifted from shortage to surplus, transforming library sovereignty into de facto reader sovereignty. The concepts of "readers first" and "everything for readers" must permeate every library aspect [23]. All library work, whether service innovation or operations, must revolve around readers, accepting their guidance, command, evaluation, assessment, and final inspection. Readers not only directly determine the value of final services but also indirectly determine the value of service elements; they determine not only service types and quantities but ultimately service quality, efficiency, and cost. Reader satisfaction has become a necessary condition for libraries' market legitimacy. Only when readers recognize services can the entire service process continue to occur, unfold, and cycle, making all service links meaningful and stakeholder participation recognized and rewarded. Reader centrism acknowledges readers' ultimate referee status in the service supply-demand system; readers can "vote with their hands or feet," ultimately promoting reallocation of front-end resources and

optimization of service activities. For example, if a librarian fails to perform their duties properly, they are usually punished because if the library does not punish them, readers will ultimately punish the library until it is eliminated.

If we compare libraries to ships, with directors as helmsmen, then readers are the shipowners who set the direction. Readers ultimately determine what libraries are and what they will become. However, absolute reader orientation inevitably pushes libraries toward peril: (1) Some reader behaviors are incorrect; while respecting reader rights, libraries should skillfully guide, regulate, correct, and prevent uncivilized behaviors such as book theft, smoking, and seat occupation. (2) Readers are typically short-sighted and self-interested, caring only about front-end services and "cost-performance ratio," not service back-ends or the hardships libraries endure to provide services. (3) Service innovation usually does not stem from reader demand surveys but depends on visionary librarians' intuition, curiosity, acuity, and imagination. Service operation improvements in efficiency, cost, and quality directly derive from librarians' craftsman spirit, not specific reader guidance. (4) Libraries must consider not only reader needs but also other stakeholders' or creators' demands, as libraries are not created solely by readers. Libraries' value does not lie in completely or blindly catering to readers but importantly in enhancing libraries' own professionalism, capabilities, taste, and status, helping readers screen, identify, and recommend, making more rational and valuable analyses and judgments to effectively meet broader needs. More importantly, libraries must foresee and lead the future, creating new services, new demands, and new value.

5.2 Reader Demand Characteristics

Reader demand is the starting point and endpoint of services. Both service innovation and operations must accurately understand reader intentions, precisely meet reader needs, and continuously feedback and iteratively optimize. Reader demand characteristics are the primary nature of services, including cognition, preferences, value, and experience. Cognition determines readers' understanding and hierarchy of needs; preferences are readers' own tastes or value tendencies; value is the explicit and implicit benefits readers obtain after receiving services; experience is the sense of gain and satisfaction throughout the service process. Within the overall demand characteristic structure exist both common and individual aspects. Common needs address standardized demands of numerous readers—the broader and stronger the common needs, the higher the standardization level. Individual needs are unique and distinctive demand attributes; different readers often exhibit different demand traits. If an individual need can lead the future and evolve into broader common needs, libraries should certainly attempt breakthrough and incremental service innovations, advancing service refinement and standardization while meeting individual needs, thereby transforming individual needs into common needs.

6 Service Intermediary

Ranganathan emphasized library service functions in *The Five Laws of Library Science*. Butler considered libraries social devices that transplant this memory into individual consciousness [24]. Libraries are physical transformation institutions; "transplantation" is the transformation process that plays an intermediary role to achieve effective integration and full utilization of resources, technology, and space, making the "transplantation" process efficient and "service" outcomes effective.

As one of library science' s research objects, service is the intermediary, bridge, or link connecting librarians and readers—a career with librarians and readers as dual axes, an organic unity of altruism (reader satisfaction, necessary condition) and self-interest (library or librarian satisfaction, sufficient condition) [25], and a cyclical progressive process requiring active management. It includes service innovation (divided into breakthrough and incremental service innovation) and service operations (or maintenance): (1) Service innovation is the unity of librarian creativity and reader demand individuality. Its primary nature is reader demand individuality—starting from individual reader needs, leveraging librarian creativity, following first principles to trace backward and decompose downward, clarifying the underlying logic of service innovation, and reverse-constructing to integrate service technologies and products, thereby meeting leading readers' individual needs. The more consistent the coupling of the two natures, the more concise and effective service innovation work becomes [26]. (2) Service operations is a process of frequent interaction between librarian manufacturing nature and reader demand commonality. Its primary nature is reader demand commonality—starting from common reader needs, leveraging librarian manufacturing nature, through repeated practice and iterative optimization, advancing service technology and management method refinement, and service process standardization, proceduralization, and normalization, continuously improving service efficiency, reducing costs, and enhancing quality. The better the coupling of the two natures, the higher the service standardization level, better meeting broader readers' standardized needs. In summary, the transition from librarian creativity to manufacturing, and from reader demand individuality to commonality, is the process from breakthrough service innovation, incremental service innovation to service operations, and also the process of service gradual standardization.

Within the entire service system, human nature encompasses the respective characteristics of librarians and reader needs; material nature refers to the unique or essential attributes of resources, space, and technology; affair nature refers to service characteristics—the regularity exhibited in the connection and coupling process between librarian manufacturing/creativity and reader demand commonality/individuality. Human nature is the starting point and destination, material nature is the foundation and condition, and affair nature is the primary nature and underlying logic of services. As an intermediary variable connecting librarians and readers, both service innovation and operations should

be based on material nature, conform to human nature, and follow affair nature —an organic unity of material nature, human nature, and affair nature, as shown in Figure 2 [Figure 2: see original paper].

Figure 2 Relationship Model of Librarians, Services, and Readers

7 Conclusion

Management is a career centered on people; library science is library management science, a discipline centered on people. Librarians are the sole subject and most active creative factor in the library service production function ([2]), the sole subject and core object of library management, users of new technology, and their human nature assumption is library science' s primary nature.

Readers are libraries' core creators, the starting point and endpoint of services, and the sole measure of service evaluation, typically occupying a dominant position in the service supply-demand system. Reader demand characteristics are the primary nature of service innovation and operations, determining the direction of service innovation and the methods and approaches of service operations.

Librarians are service creators and producers; readers are service consumers. Librarians embed themselves in foreseeing, investigating, analyzing, and meeting reader needs; readers also embed themselves in library governance and management. Through service as an intermediary, they serve as each other' s means and ends, interdependent with mutually reinforcing values, increasingly integrated, gradually achieving sovereignty fusion, ultimately forming a civilized ecology of sharing, co-creation, co-prosperity, symbiosis, and co-evolution.

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