

Prestige Correlation, Documentary Work Evolution, and Library Science Education Reform in the Post-Print Era

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Abstract

[Purpose/Significance] In recent years, the global education community has accelerated the pace of “delibraryization.” Uncovering the underlying mechanisms behind this phenomenon is not only critical for understanding the crisis in China’s library science education, but also of paramount significance for advancing library science education reforms. [Method/Process] Based on sociological prestige theory, this study constructs a university prestige correlation model and a library prestige transmission model to elucidate the relational logic linking changes in library documentation work with library science education and the information management discipline cluster. [Results/Conclusion] The research reveals that the low social prestige stemming from the continuous simplification of library nomenclature and core operations fundamentally constrains the enhancement of library science education’s attractiveness and impedes the implementation of its substantive reforms. Moreover, it further undermines the educational prestige of the information management discipline cluster, thereby damaging overall competitiveness. This study provides a novel explanatory perspective for understanding the inefficiency in library science education operation, while simultaneously furnishing a theoretical foundation for rationally evaluating the successes and failures of library science education and for further deepening reforms.

Full Text

Preamble

Reputation Association, Documentation Service Evolution, and the Reform of Library Science Education

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Abstract

[Purpose/Significance] In recent years, the global education community has accelerated the pace of “de-libraryization.” Revealing the underlying deep-seated mechanisms is not only crucial for understanding the crisis in China’s library science education but also significant for advancing its reform. **[Method/Process]** Based on sociological reputation theory, this paper constructs a university reputation association model and a library reputation conduction model to reveal the logical connections between changes in library documentation work and library science education, as well as the cluster of information management disciplines. **[Result/Conclusion]** The study finds that the low social reputation resulting from the continuous simplification of the library name and its core business fundamentally limits the enhancement of library science education’s attractiveness and constrains the implementation of its connotation reform. Moreover, it further drags down the educational reputation of the information management discipline cluster, thereby damaging overall competitiveness. This research provides a new explanatory perspective for understanding the inefficiency of library science education and offers a theoretical basis for rationally evaluating its gains and losses and further deepening reform.

Keywords: library science education; reputation association; de-libraryization; document organization

Classification Codes: G250, G254

Since the reform and opening up, China’s library science educators have cultivated a large number of outstanding talents for the country’s modernization efforts, who have made significant contributions to the transformation and development of documentation and information work in the information age. However, China’s library science major has been in a period of sluggish development during this historical process. Although a small number of universities have explored and established new majors such as information management and information resource management to adapt to the times, providing beneficial explorations for the sustainable development of library and information science education, most library science majors remain in a development dilemma: they rely on non-market mechanisms like major adjustment to survive, and attracting first-class faculty to improve disciplinary structure becomes increasingly difficult due to constraints from the major’s name and development scale. More critically, in recent years, global iSchools have accelerated the pace of “de-libraryization.”

1 Literature Review

The urgency of exploring library science major reform has become more pressing against this backdrop. Reviewing the literature reveals that while existing studies have analyzed the causes of the library science education dilemma and noted the accelerating global de-libraryization, the neglect of the association

effects between library practice changes and the reputation of majors, students, and universities prevents a deep understanding of the underlying logic of de-libraryization. It also fails to explain why library science urgently needs reform and where the key to advancing educational reform lies. This paper attempts to use sociological reputation theory to reveal the logical connections between library practice changes and library science education, and on this basis, propose possible paths for library science education reform.

1.1 Debates on Library Science Program Orientation and Educational Dilemma

Since the 1980s, China has debated whether the name “library science” is scientific. Some library workers focused on discussing the scientific validity of the name from the perspective of the library profession and its corresponding discipline. Unlike the scientific validity of a discipline’s name, the name of a major in higher education is a professional institutional arrangement, and its reform depends on changes in the times, social talent demands, and higher education policies. To meet society’s requirements for high-quality talent cultivation, China has conducted large-scale major adjustments around 1986, 1993, 1998, and 2012, compressing or discontinuing traditional majors through consolidation while adding new majors based on contemporary needs. Before 1987, the number of majors once reached over 1,300, with related changes shown in Figure 1 [Figure 1: see original paper].

The library science major was retained in these reforms, but debates on library science education reform have never ceased since the 1990s. Overall, research on program orientation can be divided into three categories: (1) **Name Immutability**. This view holds that the educational crisis of library science stems from change itself—altering department names, adjusting major names, and repackaging course names create internal instability that damages the image of library science. Research suggests that renaming is a double-edged sword: while it can align with the times, merely fashionable packaging without expanding course connotation is a reform misconception. Frequent renaming particularly tends to create a public image of self-negation and disciplinary immaturity. Some scholars argue that renaming causes library science and librarians to lose disciplinary status, a view supported by many library scholars who believe that the problem lies not in renaming but in breaking closed thinking and narrow concepts, and updating course content to adapt to library career development needs. Representative views under this philosophy include colonialism theory and characteristic theory. Colonialism theory argues that the information society promoted the birth of information science and information management majors, but their development did not create new disciplines. Instead, they encroached on library science territory and packaged themselves with more contemporary names, causing library science to gradually lose its domain. Recent studies on iSchools confirm this. The iSchool reform path cuts all theories and technologies that can be separated from physical libraries, such as retrieval and

behavior, digital libraries, into the information field, while repackaging classification, cataloging, and indexing technologies inherited from physical libraries but continued by digital libraries into the information field, leaving library science with only library professional institutions and gradually reducing it to a 鸡肋 (marginal discipline). Characteristic theory argues that in the context of iSchools vigorously developing computer science and causing serious homogenization, possessing library science is a characteristic. Therefore, accelerating de-libraryization in iSchools is irrational. The underlying logic is that characteristics constitute competitiveness, and losing characteristics means losing competitiveness.

- (2) **Market Competition Theory.** Unlike the planned economy era, today's higher education is a two-way selection process. For management and application-oriented disciplines, program development must be guided by market efficiency and student competitiveness. This perspective examines professional education from the external competitive environment. Research points out that library science needs to be replaced by broad information management majors because it fails to meet the quality and efficiency requirements for talent cultivation in the market economy era. From the perspective of social change, the comprehensive application of computing, communication, and intelligent technologies in contemporary society makes information resources increasingly important in the information society. Appropriately expanding program orientation by combining management science and documentation characteristics helps transform a single-career major with strong planned economy characteristics into a diversified and open major that meets market demands.
- (3) **Professional Theory.** This view holds that library science, originating from professional practice, severely lacks theoretical depth compared to other social sciences. Key universities focus on abstract logic training or scientific law exploration based on theory, and the stronger the professional practice, the lower the universality and the farther from scientific law activities. Therefore, the focus of library science education reform should be implementing professional orientation reform while integrating prerequisite basic theories to improve scientific theoretical levels and reduce damage caused by professionalization to the discipline.

1.2 Research Progress on the Impact of Reputation on Library Science Education

Reputation refers to the favorable social evaluation an object receives from others. China's library science programs are hosted by national key universities with generally high reputations, which should have a highly positive effect on library science education. However, regrettably, the scale of library science education has remained low. Since the 1990s, the number of programs has even shrunk dramatically, with the number of undergraduate teaching points basically stable at around 20, accounting for less than 1% of regular higher education

institutions. This low scale results in low social reputation for library science education.

Accompanying insufficient professional social reputation is students' lack of identification with the library science major. A survey of over 120 undergraduate library science students from freshman to junior year at Wuhan University showed that students' professional identity is generally at a low level, with seniors showing lower identity than juniors. Xu Jianhua's empirical survey also concluded that professional identity decreases with deeper professional education. These studies reflect that library science program reputation is not only low in society but also unfavorable among students familiar with teaching content. Su Xin-ning and others pointed out that insufficient disciplinary reputation is related to narrow research objects, insufficient research depth, and limited influence of research outcomes.

Not only students and teachers affect professional reputation, but librarians' professional reputation also influences professional competitiveness. Renowned Chinese sociologist Professor Li Qiang conducted a survey on occupational prestige changes among Beijing residents in 1997 and 2009. The results show that occupational prestige changes with the social environment. However, librarians' overall social prestige has remained at a medium level across surveys 12 years apart, ranking 58/100 and 56/99 respectively—lower than primary and secondary school teachers (29/100, 32/99), doctors (5/100, 10/99), and university professors (2/100, 4/99), and close to nurses (58/99) in the most recent survey. Wang Pianran, Xu Jianhua, and others, combining the perspective of librarians' social prestige changes, conducted in-depth interviews with 41 library science students from the 1977 college entrance examination restoration to the present about their major selection experiences. They found that the 1990s marked the turning point when library science changed from “popular” to “unpopular.” Before the 1990s, students hoped to work in libraries, while graduates after the 1990s did not necessarily pursue library careers. These studies confirm that library science social reputation is related to education itself but more importantly influenced by the era's environment.

Regarding low librarian occupational prestige, some researchers theoretically analyzed its causes. Some library workers believe existing library research is not connected to more essential social content, and most work seen in libraries is simple mechanical labor, making it difficult for people to associate this work or simple formal research with science. Some practitioners believe low library science occupational prestige is closely related to the disconnect between theory and practice in education, criticizing the phenomenon that library science education fails to meet practical needs. Surveys show that some library leaders explicitly state they are not keen on hiring library science majors. Based on these observations, the library science education crisis is not only related to students, teachers, and practitioners but also constrained by the social environment of librarians' occupational prestige.

The above studies show that library science education faces multi-dimensional

development dilemmas, and scholars have gradually explored the impact of occupational satisfaction and professional stereotypes on library science education from the perspective of occupational prestige. These studies broaden the theoretical perspective, but existing research has the following shortcomings: First, much literature focuses on examining the impact of library practice on library science professional competitiveness from the student and librarian perspectives, while few studies respond to the theoretical basis of how relevant documentation work affects library science education reputation from the essence behind practice. Second, existing research has noted the impact of occupational reputation on library science education itself, but few have revealed how changes in library occupational reputation affect the educational competitiveness of other information management discipline clusters beyond library science. Exploring the multiple educational loss connotations of library occupational reputation changes is not only conducive to deeply understanding the significance of promoting library science education reform but also to recognizing the overall value of such reform for enhancing the competitiveness of the information management discipline cluster. Based on these considerations, this paper attempts to construct an association model between occupational reputation and professional education and reveals the impact of occupational reputation changes on library science education and the sustainable development of the information management discipline cluster from the evolution of documentation organization and retrieval work.

2 Theoretical Foundation

Human development is social. Sociological theory posits that social inequality shapes the distribution of valuable goods. The higher the social status, the more valuable goods are allocated and the stronger the competitiveness. Sociologists use social status to refer to socioeconomic status (SES), which includes individuals' education level, income, and occupational prestige. Social status can be measured by the term "reputation." For educational entities, reputation refers to the favorable evaluation and social recognition obtained by teachers and students. Factors influencing group reputation include admiration, complexity and challenge, courage and adventure, innovation spirit, helping those in distress, public interest, and charity.

To gain social recognition, the more outstanding students are, the more they desire to enter universities with higher reputations. Sociologists such as M. Webb use reputation, wealth, and power together to depict social stratification, corresponding to a person's social status, economic status, and political status. Unlike entrepreneurs and politicians who pursue wealth and power, universities' intrinsic goal is to maintain and enhance reputation. Prestigious universities can not only attract outstanding students but also motivate renowned entrepreneurs to donate and distinguished politicians to deliver speeches.

Universities cultivate talents for society through majors. As a market behavior, majors often rely on disciplinary combinations to meet social needs. Based

on this assumption, disciplines are the atomic carriers constituting the overall reputation of a university. The basic logic is that the greater the disciplinary reputation, the stronger the major reputation; the higher the disciplinary reputation, the more it can attract first-class teachers. Conversely, the higher the teacher reputation, the better the disciplinary reputation, the stronger the major reputation, and the better the student quality. On this basis, the higher the reputation of teachers and students, the higher the overall university reputation; conversely, the higher the university reputation, the more it can attract outstanding teachers and students to continuously improve major and disciplinary reputation (see Figure 1, where bidirectional arrows indicate mutual influence).

Meanwhile, all university majors have explicit or implicit associations with various social positions (dashed lines indicate implicit associations, solid lines indicate explicit associations). Sociological theory holds that a person typically gains good reputation by having a good position. To gain social recognition, every university graduate hopes to find a better job position, which consequently has varying degrees of prestige. Based on the above analysis, this paper proposes the university reputation association model shown in Figure 2 [Figure 2: see original paper].

From Figure 2, we can see that education is an associative good. Its associative logic lies in that major reputation is not only related to disciplines, students (graduates), and teachers but also closely connected to the reputation of associated professions and the university (since most university majors are trained according to broad disciplines, the correlation between profession and major is mainly implicit, hence represented by dashed lines; the correlation between library science major and library profession is explicit, hence Figure 3 [Figure 3: see original paper] uses solid lines). From the horizontal arrow perspective, “Profession $\rightarrow$ Major $\rightarrow$ Discipline $\rightarrow$ University” constitutes the social conduction line of major reputation. From the internal education perspective, “Major Student Teacher Discipline University” constitutes the internal association line of major support. The higher the reputation of the profession associated with a major and the broader its coverage, the more likely the major is to be favored by society; conversely, the lower the reputation and narrower the coverage, the major will face market cold-shouldering or even elimination. Overall, although major development is closely related to university subjects like students and teachers, the impact of reputation changes in associated professions on the sustainable development of education cannot be ignored.

3 Evolution of Library Documentation Organization and Retrieval Work

Documentation organization and retrieval are the core work of libraries, and their specialized content also constitutes the backbone courses of library science majors. Therefore, this section will analyze the evolution of documentation organization and retrieval work to reflect overall changes in library practice. With the maturation of the information society, the focus of library work has funda-

mentally changed compared to the past. To more clearly reveal the historical evolution of documentation organization and retrieval, it is necessary to first reflect on the professional status of library science education from its origins.

3.1 Professional Status of Library Science

The core courses of library science are bibliography, document classification and cataloging, and subject indexing. After entering the 21st century, the information management major integrated and further abstracted the most methodological content from library science core courses to form a new course named “Information Organization” [45]. Document classification is the foundation of information organization courses and the core of traditional library back-office work. In physical environments, classification practice is faced whenever management is involved, such as wardrobe organization and supermarket shelving. However, why haven’t these become university majors? The fundamental reason is that these contents are insufficient to support the professionalism required for major development. The professionalism of documentation management lies in four aspects:

First, **huge resources**. Unlike the finiteness of ordinary products, the volume of global documentation resources is infinite. Moreover, numerous disciplinary categories and interdisciplinary interweavings make scientific division of such massive resources a serious academic pursuit.

Second, **dynamic circulation**. Unlike static storage, documentation is a resource that requires long-term continuous updating and circulation. Designing appropriate classification methods for organizing, transmitting, and circulating vast resources is a challenging problem.

Third, **knowledge management**. Different from traditional commercial services based on mass management, documentation services face the entirety of human knowledge systems. Knowledge has characteristics of associativity, multilingual diversity, and interdisciplinarity. In the context of fully manual independent operation without computer assistance, understanding the basic background of various disciplines is fundamental for documentation classification, making the work threshold relatively high.

Fourth, **long-term preservation**. Unlike traditional public goods that only consider short-term organization, as a treasure house of human knowledge, documentation is an important strategic resource that requires not only convenient current use but also long-term preservation, necessitating systematic design.

In summary, library science developed on the basis of document classification and services. From a professional perspective, its professional status is reflected not only in the professionalism of documentation organization work but also in the complexity of document retrieval. Citation analysis developed on the basis of indexing, a documentation organization tool, and became a relatively independent discipline after the 1970s due to SCI’s huge impact on global scientists.

Since citation analysis is not directly related to this paper's main theme, it will not be discussed below.

3.2 Evolution of Documentation Organization

Traditional documentation work involves inventorying and sorting books and periodicals, processing them through documentation organization tools like classification and subject indexing to produce secondary literature such as catalogs, abstracts, and indexes. In other words, the production, preservation, and utilization of secondary literature were the center of all traditional library work. From this perspective, secondary literature is the lifeblood of libraries, derived from two major aspects: (1) creating card catalogs or online public catalogs for book literature; (2) building abstracts or indexes for periodical literature. Without computer management, not only was organizing and compiling secondary literature extremely complex, but using secondary literature for searching was also a highly specialized task. The evolution of documentation organization is shown in Table 1.

After the 1970s, MARC technology and computer database development gradually transitioned book card catalog compilation and services to management information systems, initiating the transformation of traditional library work to modern operations while also sowing the seeds of library science's decline. The reasons are: First, due to the similarity of books, cataloging work involved substantial repetitive labor, and computers, as natural enemies of repetitive labor, could liberate librarians from heavy cataloging work through large-scale application. Second, as mentioned earlier, secondary literature is a valuable strategic resource for libraries. Computer usage meant one computer equaled one catalog, and sufficient computers meant unlimited catalog copies, thus eliminating the scarcity of secondary literature. Third, the maturation and industrial application of computer retrieval technology could liberate librarians from retrieval services. However, from another perspective, readers no longer relying on librarians and secondary literature meant librarians' professional status faced collapse. Yet, the backwardness of computer industry technology and the high cost of computer hardware and library management system software posed obstacles. This pattern was gradually broken in China after the 1990s.

First, Chinese library scientist Shen Difei's team successfully developed a domestic library automation system after three years of hard work in 1991 [51], reducing software prices from over \$300,000 to around 40,000 RMB. Meanwhile, Meng Liansheng and others developed the Chinese Science Citation Index database after more than ten years of research and practice [52]. Entering the 21st century, Zhang Xiaolin's team initiated China's digital library construction, conducting extensive theoretical and practical work in metadata, open-source institutional repositories, and other digital standards and service systems [53-57]. These representative contributions significantly facilitated China's library modernization transformation.

Second, the promotion of World Wide Web and information sharing protocols in the 1990s made shared cataloging, union cataloging, and cataloging outsourcing possible in the network environment [58-59]. In the Web environment, once the National Library, Chinese Academy of Sciences, Peking University, and a few other documentation centers completed cataloging, other libraries could localize cataloging data based on information sharing protocols. In other words, with computer hardware and cataloging software assistance, cataloging work could be completed without disciplinary background knowledge.

Third, since the early 21st century, the popularization of search engines like Google and Baidu has brought computer search from university domains to public life, making search engines indispensable for everyone. Meanwhile, the maturation of the computer industry market gradually made hardware prices affordable for the public, and electronic products evolved from being owned by some to being owned by all. Consequently, library documentation services relying on librarians and physical premises completely collapsed.

After 2010, research on open linked data for collection resources gradually moved from academic exploration to practical implementation [60-61]. Traditional cataloging data was not only complex in specification but also unable to integrate with Internet data. Achieving open description and semantic linking of data became a consensus among library science workers and computer scientists. W3C's proposed standards like XML and SKOS provided the foundation, and the Bibframe framework led by the Library of Congress, with participation from more institutions, gradually advanced these efforts toward practicality [62]. In recent years, the rapid development of big data processing, machine learning, and natural language processing technologies has provided sources for innovation in modern information organization methodology systems.

3.3 Evolution of Information Retrieval

The term "information retrieval" originated from computer science, coined by C. Moores in the 1950s [63]. After more than 60 years of development, computer information retrieval has become a mature discipline. Unlike computer science's focus on information retrieval principles, for libraries, information retrieval is documentation service. Documentation service achieves the circulation of primary literature through the search of secondary literature. Traditional documentation service gradually broke away from dependence on secondary literature in the era of computer networking and digital journal group production, instead directly achieving circulation through digital full text. Abstracts and indexes and other secondary literature have been marginalized in the digital age. The evolution of literature retrieval is shown in Table 2 .

As shown in Table 2, the above changes in literature retrieval present the following characteristics: First, in terms of resource objects, user retrieval resources have evolved from printed resources to printed-digitized resources to native digital resources. Second, in terms of document acquisition, libraries have evolved

from librarian-dominated acquisition to reader self-service acquisition, and from location-dependent acquisition to mobile acquisition. Third, in terms of retrieval usage, the popularization of computer search has transformed library documentation service from complex librarian searches to simple user searches. Fourth, from a methodological perspective, the transition from processing printed literature to native digital resources essentially represents not an extension of traditional library classification and organization methods but a leap to modern information organization and retrieval in the computer science domain, achieved through Web data open representation languages like XML, semantic Web, natural language processing, data science, and big data analytics.

From an industry service perspective, since modern information retrieval work is based on specialized services with scientific foundations, on one hand, traditional librarians find it difficult to be competent; on the other hand, specialization promotes large-scale production. Coupled with monopoly profits in the documentation service industry, documentation digital industry groups rapidly formed in the information society, with various digital resource suppliers and technical outsourcing service providers entering this market to offer preferential products and services to libraries. In practice, we see that traditional back-office library work has evolved into centralized procurement of cataloging data and various full-text databases under the industry background, while front-office documentation services that previously relied on librarians and library premises have been marginalized. Consequently, research libraries like the Chinese Academy of Sciences Documentation and Information Center have transitioned their service focus from resource organization-based location services to in-depth intelligence analysis services, relying on rich digital literature collections and specialized PhD teams to provide strategic and disciplinary intelligence products. Librarians in the new era have become de facto think tank workers and knowledge management experts [64].

In summary, library science essentially originates from library documentation organization and search work, both historical products prepared for printed literature. Since the 1950s, while traditional library science information organization methodology has transitioned from prosperity to decline, modern information retrieval has grown from infancy to maturity. From this perspective, the maturation of computer science and the large-scale development of the information service industry represent the transformation of documentation service work from empirical to scientific, and simultaneously, the marginalization of traditional library work from professional to peripheral. This conclusion indicates that library science moving toward scientization is not the maturation of traditional library science but rather the decline of career-oriented library science. From a professional perspective, as documentation services have shifted upstream to digital resource suppliers and downstream to the general public in the documentation industry chain, the inherent status of physical libraries as documentation service intermediaries has been shaken.

4 Discussion and Implications

Based on the above logic, library science globally continues to decline and faces development dilemmas in the process of libraries moving toward modernization. The root of this dilemma lies in the discipline's soil originating from professional practice and the transformation of library practice by computer applications, leading to the decline of corresponding disciplines. Relying on these results, the author further explains the impact of library practice on library science education, adjacent disciplines, and university reputation from the perspective of overall university benefits, using the reputation association model.

4.1 Library Reputation Conduction Mechanism and Reputation Drag Effect

According to the university reputation association model, we can derive the library reputation conduction model shown in Figure 3 [Figure 3: see original paper]. As described in Section 2, majors are closely connected to occupational and university reputation. Excluding the influence of university and college reputation, majors associated with higher occupational reputation and broader occupational coverage will more easily attract students and be more competitive. However, as a public window for talent cultivation, the library science major name corresponds to a single library profession and librarian position, lacking comparative advantages in both occupational coverage and occupational reputation. Obviously, maintaining the library science major name not only leads to its own educational inefficiency but also, based on the associated conduction mechanism of major reputation, affects the educational reputation of information management discipline clusters like information management and information systems, representing multiple efficiency losses. As artificial intelligence products gradually enter libraries and cause continuous simplification of library practice, the reputation of corresponding students and teachers will be further weakened, exacerbating their inferiority complex [11], thereby increasingly losing internal momentum in the flow-based cultivation of enrollment, teaching, and employment, and dragging down the overall reputation of their colleges, universities, and first-class discipline clusters, causing the external environment for discipline development to continuously deteriorate.

As described in Section 1.2, although the social environment has changed, librarians' occupational reputation has remained basically unchanged. Positioning theory points out [65] that once a concept occupies the public mind, it is extremely difficult to change the public's mental model of that concept's connotation. In other words, the social stereotype of libraries as entities, their objects, and simple work cognition has been established and is difficult to dissolve, while major development relies on the library name for public promotion. Therefore, only by cutting ties with libraries in name can the highly negative impact of library practice and its occupational reputation on library science education be avoided.

4.2 Library Name and Its Positioning Constrain Major Connotation Reform

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First, characteristics are neither a sufficient nor necessary condition for competitiveness. University disciplinary characteristics must be built on a foundation of competitiveness, but having characteristics does not necessarily mean having competitiveness. For research universities, sustainable development is only possible based on the "mid-to-high-end—scale—characteristics" model. Mid-to-high-end positioning is the foundation. Only by adhering to mid-to-high-end positioning can we adapt to social needs and achieve economies of scale. Once scale exceeds market demand, further differentiation to form characteristics is necessary to maintain competitive advantages by continuously breaking the supply-demand balance. Examining library science from this perspective: library science characteristics are built on the foundation of low-end, small-scale,

and difficult-entry traditional planned-economy education. The current name not only fails to attract outstanding students but also limits the diverse career choices of existing students. Some students have actively requested name changes from frontline teachers when facing the single-job-seeking dilemma of libraries, with some even strongly pleading “even if only the major name is changed without implementing curriculum reform” considering teacher pressure.

In fact, the direct consequence of not renaming is that connotation reform cannot be effectively advanced. With the maturation of the information age leading to the transformation of library careers, the dilemma of traditional core curriculum system simplification and accelerated aging has become increasingly prominent. Meanwhile, modern scientific courses and interdisciplinary theoretical courses related to the discipline continue to mature. Some universities’ attempts to incorporate prerequisite courses that better reflect scientific, contemporary, and interdisciplinary theoretical integration into the library science talent training system have either been questioned due to inherent disciplinary traditions or can only be designed as marginal elective courses. Under the dual constraints of major name and elective system, students lack sufficient identification with these courses, making it difficult for relevant curriculum reforms to effectively improve talent training quality, and major connotation reform progresses with difficulty. Insufficient curriculum connotation construction further constrains research connotation improvement. Library science research connotation presents low-end scaling, i.e., “low-end—large-scale—characteristics (characteristics compared to other disciplines, but professionalization and homogenization within libraries).” Highly-cited papers in library and information science show that papers with broader influence in the discipline concentrate on library professional content and conceptual themes rather than more competitive universal themes like information organization, retrieval, and bibliometrics [8]. This structural imbalance indicates insufficient scale and academic team building around mid-to-high-end thematic content, limiting the discipline’s overall competitiveness.

Second, the essence of colonialism theory is homogenization, but more fundamentally, it is the normal upgrade of library science professionals and their successors in the information age. Taking the University of Texas at Austin as an example [14], its upgrade path was School of Library Science (1948) → School of Library and Information Science (1980) → School of Information (2003), sharing commonalities with Wuhan University, the mother of library science in China. The success of the information management and information systems major has practically proven the outstanding significance of renaming and the important value of library science core courses, while also demonstrating how institutional and specific professional positioning constrains major development. Its historical merit lies in, on one hand, achieving the smooth inheritance of library science through sublation, and on the other hand, providing valuable enlightenment for today’s library science reform.

4.3 Form and Connotation of Library Science Education Reform

Facing the extremely low social reputation of library science majors in key universities and the resulting reputation drag effect on information discipline clusters, we must unwaveringly promote major orientation reform while implementing mid-to-high-end positioning strategies in accordance with disciplinary development laws and higher education requirements.

Implementing mid-to-high-end positioning includes both name and connotation aspects. In the current context where information science in China is exploring military-civilian fusion positioning [66-67], taking the opportunity of library science major renaming to vigorously develop the information resource management major is a viable reform plan. Compared with names like documentation informatics or knowledge management, information resource management not only inherits China's existing reform practice tradition but also prioritizes potential occupational reputation and coverage associated with the name. It also creates some differentiation from information science and the Master of Library and Information Studies, diluting library institutions to broaden higher education content to the social information level. From a competitiveness perspective, it avoids the reputation dilemma and connotation development constraints caused by library institutions while actively adapting to information age needs and promoting the discipline's transformation from closed to open, conducive to absorbing social education resources and optimizing library science faculty structure.

Specifically regarding training levels: at the undergraduate level, discontinue library science education and focus on developing undergraduate majors like information resource management that are compatible with era requirements and university reputation, striving to achieve economies of scale in response to market demand. Undergraduate major backbone courses should inherit existing information organization-related course systems while steadily integrating modern information management courses such as information retrieval principles, data science introduction, geographic information systems, and big data analysis and mining. Combined with departmental characteristics, they should absorb foundational principle courses from social sciences like sociology introduction, economics principles, behavioral science, and public culture and policy, expanding fields while improving disciplinary theoretical levels to build an open, compound knowledge system centered on information. At the graduate level, focus on enriching major connotation by compressing traditional library science specialized courses and adding interdisciplinary specialized courses like social and policy informatics, forming diverse academic directions such as documentation informatics, social informatics, and policy informatics. In scientific research, clearly distinguish between academic degrees and professional degrees: the former emphasizes theory, methods, and application innovation to improve research academic quality; the latter highlights professional orientation characteristics, using the Master of Library and Information Studies as a public window to further expand scale, strengthen applied practice research and man-

agement case teaching, and focus on cultivating mid-to-high-end professional talents in strategic management, intelligence analysis, data management, and document restoration for libraries and other information institutions.

What factors have led to library science's survival dilemma? Why has the rise of computer applications fundamentally weakened library science education competitiveness? Why is it difficult to resolve the professional development crisis by only implementing curriculum reform without promoting major orientation reform? Why does the continuous simplification of documentation service work affect the overall competitiveness of the information management discipline cluster? These questions are not only important concerns for library science educators but also significant for understanding the overall competitiveness of the information management discipline cluster. Based on sociological reputation theory, this paper constructs a university reputation association model and a library reputation conduction model, revealing the logical connections between library practice changes and library science education and the information management discipline cluster. The study explains the evolution of library documentation organization and service work from professional to gradually simplified over the past 70 years and, based on the reputation model, answers how this practical process affects library science education reputation through associated conduction mechanisms, further revealing the reputation drag effect of declining library science reputation on the information management discipline cluster and first-class university teachers and students. Based on these findings, the study clarifies that the name immutability theory, characteristic theory, and colonialism theory are misconceptions causing the library science education crisis, and proposes a three-in-one reform path promoting the separation of academic and professional degrees, reconstructing the scientific curriculum system under the name of information resource management, and enriching research connotation.

Of course, this paper also has limitations: First, as a theoretical study, it mainly demonstrates the association between occupational reputation and professional education from theoretical logic but lacks more empirical testing with systematic national data. Second, this paper only selects library documentation organization and retrieval work to examine changes in professional competitiveness, with insufficient examination of other factors affecting professional competitiveness. These limitations constitute directions for future in-depth research.

Compared with related research, this paper's contribution lies in revealing how the occupational reputation formed by changes in libraries and their documentation work affects the competitiveness of the information management discipline cluster, including library science education. The research process has certain connections with library practitioners' elaboration on digital library practice evolution [68-69], but the focus of related research is on the impact of the above evolution on future professional practice, while this paper aims to theoretically answer how the dynamic changes in occupational reputation under practical evolution affect the competitiveness of the information management discipline cluster. Compared with research on librarians' occupational reputation [36, 41],

this paper differs by relying on the marginalization of documentation work and the library reputation conduction model to reveal the multiple reputation losses caused by occupational reputation changes, including multiple subjects like library science. In other words, this paper emphasizes the associated conduction mechanism of occupational reputation formed by major orientation on major reputation and the multiple efficiency losses based on this mechanism.

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Reputation Association, Documentation Service Evolution, and the Reform of Library Science Education

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Abstract: [Purpose/significance] The pace of de-libraryization has been accelerating at the global library and information circle in recent years. Revealing the underlying deep-seated mechanism is not only crucial to understanding the crisis of library science education in China, but also significant to promoting its reform. [Method/process] Based on the reputation theory of sociology, this paper constructs two models of college reputation association and a model of library reputation conduction. It then reveals the internal association mechanism between the change of library practice and information management disciplines as well as library science education. [Result/conclusion] The research finds that the low reputation resulting from the continuous simplification of the library name and its core business will fundamentally restrict the attraction improvement of library science education and constrain the implementation of its connotation reform. Moreover, it will further drag down the educational reputation of the information management discipline cluster, thus damaging overall competitiveness. This study provides a new explanatory perspective for understanding the inefficiency of library science education and offers an important reference for educational practitioners to objectively evaluate the gains and losses of library science education and further deepen reform.

Keywords: library science education; reputation association; de-libraryization; document organization

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

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