Extensive Observation and Selective Absorption, Carrying Forward with Ardent Spirit—A Review of the Postprint of "Discipline Construction and Development of Intelligence Science"

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Abstract

[Purpose/Significance] To explore the latest research achievements in the discipline construction of information science in the new era, and to interpret the latest thinking on the development of the information science discipline. [Method/Process] Against the backdrop of the times and the "Nanjing Consensus on the Development of Information Science and Information Work", this paper provides a detailed analysis of the main content, value and significance, characteristics, and shortcomings of the monograph "Discipline Construction and Development of Information Science". [Results/Conclusion] The book "Discipline Construction and Development of Information Science" is a pioneering research achievement in the field of discipline construction and development of information science in China, which exerts important influence and promotes the maintenance of the status of the information science discipline and the acceleration of its construction.

Full Text

Preamble

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Crystallize by Absorbing Widely, Enhance and Glorify: A Review of *Discipline Construction and Development of Information Science*

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Abstract:
[Purpose/Significance] To explore the latest research achievements in the discipline construction of information science in the new era and interpret contemporary thinking on the development of the information science discipline.
[Method/Process] Against the backdrop of evolving times and the *Nanjing Consensus for the Development of Information Science and Practice*, this paper provides a detailed analysis of the main contents, value and significance, characteristics, and shortcomings of the monograph *Discipline Construction and Development of Information Science*.
[Result/Conclusion] This book represents a pioneering research achievement in the field of information science discipline construction and development in China, playing an important role in influencing and promoting the maintenance of information science's disciplinary status and the acceleration of its construction.

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After decades of development, Chinese information science has made considerable progress in both disciplinary construction and theoretical research. However, this progress has yet to reach the true goals of the field's development. With the adjustment of national foreign strategy in peacetime and increasing state attention to intelligence work, the promulgation of the *National Intelligence Law* has created new demands for theoretical research in information science while providing an excellent opportunity for the discipline to reposition itself and achieve rapid growth. The time is ripe to clarify fundamental theoretical issues and reconstruct the disciplinary system of information science.

On October 29, 2017, the Forum on the Development of Information Science and Intelligence Work was convened, resulting in the *Nanjing Consensus*. Its first point states the need to "reposition the development goals of the information science discipline." Specifically, in the face of changing times, information science and intelligence work must transform and evolve, breaking through the discipline's inherent paradigm based on documentation and expanding its boundaries characterized by intelligence exchange [1]. In other words, we must hold firm to our intelligence position, remain true to our original aspiration and mission, and forge a development path for information science with Chinese characteristics [2]. *Discipline Construction and Development of Information Science*, authored by Yang Jianlin and colleagues, represents the latest research achievement in this context.

"Repositioning the development goals of the information science discipline" essentially entails in-depth research into the discipline's connotation, extension, and inter-disciplinary relationships; innovating its theoretical, methodological, and paradigmatic frameworks; and exploring how to construct and develop the

discipline. However, "easier said than done." Whether concerning the understanding of basic concepts, the explanation of fundamental principles, or the division of theoretical schools, the path is rugged and fraught with difficulties. Nevertheless, *Discipline Construction and Development of Information Science* makes a beneficial exploration of disciplinary construction in the new era, achieving new developments in information science research.

1. Reorganizing the Knowledge System of Information Science to Achieve Innovative Development

This book first introduces the research objects of information science—intelligence and intelligence phenomena—by tracing the emergence and development, characteristics and functions, and tasks and content of intelligence work. It clarifies the discipline's origins, functions, and related disciplines, painting a comprehensive picture of information science's disciplinary landscape. Second, it analyzes the major problems facing information science construction and the controversies within China's information science community regarding disciplinary positioning and development. Furthermore, it explores the discipline's core concepts, unique research fields, research questions, and research methods, providing an in-depth analysis of the rationality and shortcomings of existing fundamental principles in information science.

This study not only clarifies the basic core of information science—its fundamental concepts, principles, methods, and laws—but also, to a certain extent, reshapes the "root" and "soul" of the discipline, holding innovative significance for its development.

2. Reconstructing the Basic Theoretical Framework of Information Science to Achieve Renewed Development

Compared with traditional social sciences, information science's disciplinary status is noticeably lower. One important reason is that information science has not yet formed a widely accepted basic theoretical system, with numerous controversies within the field and superficial understanding among both insiders and outsiders [3]. Based on analyzing theoretical schools and paradigms in information science, this book explores the relationships among various research areas, constructs a generalized intelligence system architecture model, and proposes basic ideas for integrating existing theoretical systems along with six recommendations for reconstructing the foundational theoretical framework.

The book's generalized intelligence system architecture model functions for information science theory development much like computer architecture models do for computer theory, enabling the unification of major theoretical achievements within a single framework. In other words, exploring the connotation of intelligence thinking at the current juncture requires identifying commonalities and connections across important branches of information science, providing readers with valuable insights and representing new thinking and exploration in

disciplinary construction.

3. Re-exploring National Security Intelligence to Achieve Elevated Development

To follow the principle of "adhering to the overall national security concept and following a path of national security with Chinese characteristics," this book discusses how current national security situations influence information science development. It focuses on the entire process of national security intelligence—acquisition, fusion, and analysis—and re-explores critical intelligence issues related to national security that require urgent research. At the practical level, it analyzes the construction of intelligence organizational systems, intelligence fusion centers, and intelligence service systems for national security intelligence work.

Overall, guided by the "overall national security concept," this book establishes attention to national security intelligence issues as a key component of information science disciplinary construction, enhancing the discipline's voice in social development.

4. Re-examining National Strategy to Achieve Development of the Information Science Discipline

This book argues that as an applied discipline, information science's social value and influence have always been closely related to attention to national strategy [4]. In today's big data era and critical period of think tank strategy implementation, information science should seize this opportunity, build on tradition, gather strength, and leverage momentum to consolidate its theoretical foundation and break through empirical development models. This involves transforming analysis objects from information units and document units to intelligence units, combining basic intelligence attributes with big data advantages, and integrating intelligence work for national innovation, development, and security during peacetime.

The above research clarifies a development path for the information science discipline adapted to national think tank strategy in the big data era, promoting vigorous development of the discipline despite its overall sluggish status.

5. Re-examining Key Areas of Information Science to Achieve Expansive Development

An important means for China's industrial upgrading and technological development is exploring dynamic intelligence solutions based on big data processing. Therefore, at this critical juncture of comprehensive reform in technological progress and social development, and facing increasingly complex international competition, information science must not only serve as "eyes, ears, vanguard, and staff" but also assume the role of a guide leading scientific and technological research and industrial development. It must become an assistant for

technological innovation, social development, and government decision-making. To achieve these goals, this book re-examines the impact of technologies such as IoT, internet, large-scale storage, cloud computing, massive data mining, and artificial intelligence on intelligence technology. It re-discusses information science's support for government decision-making, business decision-making, intelligent manufacturing, and residents' lives, and re-analyzes the opportunities and challenges brought to information science by changes in the international competitive environment.

This book's research clarifies key issues in information science research within the big data context, argues that think tank research will become a major focus of disciplinary construction, and explores key areas that information science research should address when facing scientific and technological progress, social development, and international competition, thereby expanding the discipline's research scope.

It is well known that the connotation and extension of information science in the new era have undergone tremendous changes, necessitating transformation of the disciplinary system to guide and regulate its construction and development. *Discipline Construction and Development of Information Science* aims to address long-standing concerns in the academic community regarding disciplinary construction and development positioning. Considering the expansion of research fields, changes in the external resource environment, and the imprint of social, scientific, and technological development during the discipline's founding and growth in China, it provides in-depth analysis of existing problems and explores solutions. The book's findings clarify the boundaries between information science and related disciplines such as library and archival science, further highlight information science's status, and offer important guidance for both information science education and intelligence practice, helping to promote information science as an independent discipline that contributes to social progress and national security.

Given the complexity and magnitude of issues related to information science construction and development, although this book has explored the discipline's unique research fields, questions, and methods, the depth and comprehensiveness of its analysis need improvement, awaiting further discussion and refinement by academic colleagues.

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