

# Information Seeking Behavior Characteristics of Visually Impaired Users in Work-Task Contexts: A Grounded Theory-Based Exploratory Study (Postprint)

**Authors:** Jiarui Yuan, Deng Xiaozhao

**Date:** 2023-08-27T00:00:00+00:00

## Abstract

[Purpose/Significance] This study investigates the information-seeking behavior of visually impaired users in work task contexts, theoretically expanding the perspectives and content of research on information-seeking behavior among visually impaired users, and providing a theoretical basis for improving information services for disadvantaged groups.

[Method/Process] Employing classical grounded theory, this research conducts an investigation into the information-seeking behavior of visually impaired users in work task contexts, constructs an information-seeking behavior model for visually impaired users in such contexts, and extracts the characteristics of their information-seeking behavior.

[Results/Conclusions] The information-seeking behavior process of visually impaired users in work task contexts primarily comprises four stages, and their information-seeking behavior is not a singular linear process. The information-seeking behavior of visually impaired users exhibits diverse information-seeking motivations, demonstrating characteristics of simplified goal-directed searching, normalized non-goal-directed browsing, and singularized informal communication, obtaining different information content through different types of help-seeking.

## Full Text

## Preamble

**Vol. 62 No. 14, July 2018**

*ChinaXiv Cooperative Journal*

## Characteristics of Visually Impaired Users' Information Seeking Behavior in Work-Task Context: An Exploratory Study Based on Grounded Theory

Yuan Jiarui, Deng Xiaozhao

School of Computer and Information Science, Southwest University, Chongqing 400715

### Abstract

**[Purpose/Significance]** This study investigates the information seeking behavior of visually impaired users in work-task contexts, aiming to theoretically expand the perspective and content of research on visually impaired users' information seeking behavior and provide a theoretical basis for improving information services for disadvantaged groups. **[Method/Process]** Employing classical grounded theory, this study examines the information seeking behavior of visually impaired users in work-task contexts, constructs a process model of their information seeking behavior, and identifies the key characteristics of this behavior. **[Result/Conclusion]** The information seeking process of visually impaired users in work-task contexts comprises four main stages, and their information seeking behavior is not a simple linear process. These users exhibit different information seeking motivations, demonstrating characteristics such as simplified goal-oriented retrieval, normalized non-goal-oriented browsing, and simplified informal communication. They obtain different types of information content through different help-seeking patterns.

**Keywords:** visually impaired user, information seeking, information behavior, task context

### 1. Introduction

In recent years, rapid advances in information technology and continuous improvements in social security mechanisms, coupled with government emphasis on employment for people with disabilities, have created an increasingly inclusive social environment that encourages more visually impaired individuals to participate in employment, entrepreneurship, and professional work. Existing research on visually impaired users' information behavior has primarily focused on their daily life and academic information seeking, internet and assistive technology usage patterns, and the construction and validation of information seeking behavior models. However, the subgroup of visually impaired individuals engaged in professional work has not received adequate scholarly attention. While a few scholars have tested the applicability of existing information behavior models to visually impaired populations and constructed dedicated models, research on visually impaired users' information seeking behavior in professional work contexts remains scarce.

In task-oriented information seeking research, studies have concentrated on task

classification methods and the impact of tasks on information behavior. Researchers have recognized that tasks significantly influence information seeking behavior, and task-oriented information seeking models have explained how different task variables affect users' information seeking processes. Nevertheless, these studies have been limited to non-visually impaired populations, excluding visually impaired users from investigation.

This study examines the information seeking behavior of visually impaired users in work-task contexts, seeking to theoretically expand the perspective and content of research in this area, provide a theoretical basis for improving information services for disadvantaged groups, and offer references for advancing China's information accessibility initiatives.

## 2. Literature Review

In summary, no existing research has investigated the processes and behavioral characteristics of visually impaired users' information seeking in work-task contexts. Therefore, this study focuses specifically on the information seeking processes and behavioral characteristics of visually impaired users in professional work-task contexts, constructing a theoretical framework for their information seeking behavior in these situations.

Current research on visually impaired users' information behavior has examined daily life and academic information seeking from a user perspective, investigated internet usage and assistive technology adoption from an information technology perspective, and explored the applicability of existing information behavior models to this population. However, research on visually impaired users' information seeking in professional work contexts remains notably absent.

## 3. Research Methods and Data Sources

### 3.1 Research Strategy

This study follows the grounded theory research strategy to investigate visually impaired users' information seeking behavior in work-task contexts. Grounded theory was formally introduced by B. G. Glaser and A. L. Strauss in their 1967 publication *The Discovery of Grounded Theory*. Over time, three related yet distinct schools have emerged: Glaser's classical grounded theory, Strauss and Corbin's procedural grounded theory, and Charmaz's constructivist grounded theory. The primary difference among these lies in their coding processes. Given the limited systematic research and theoretical foundation on visually impaired users' information seeking behavior, this study adopts classical grounded theory to explore this phenomenon in work-task contexts.

### 3.2 Data Collection Methods

**3.2.1 Semi-structured Interviews** Appropriate interview participants were selected based on a predetermined interview guide to conduct in-depth semi-

structured interviews about their information seeking behavior processes and characteristics in work-task contexts. All interviews were conducted one-on-one, either face-to-face or via video calls.

**3.2.2 Observation** The researchers entered some participants' work environments to observe their information seeking behaviors, systematically recording their information seeking activities and interactions with others to collect contextual background information.

### 3.3 Sample Selection

Based on the study's definition of visually impaired users and ethical considerations, the sample selection criteria were established as: holding a People's Republic of China Disability Certificate (for visual impairment); currently engaged in professional work that utilizes specialized knowledge or skills to obtain reasonable compensation; capable of free communication; having full capacity for civil conduct; and consenting to participate in the study.

Following grounded theory requirements, the study employed purposive sampling in the early stage by requesting recommendations from staff at a district Disabled Persons' Federation, then selecting participants based on occupation and degree of visual impairment. In the middle stage, snowball sampling was used, starting with selected participants to identify additional participants through their networks. In the later stage, theoretical sampling—a unique method in grounded theory—was employed for data collection. Theoretical saturation was reached with 26 participants, at which point no new conceptual categories emerged. Sample demographic characteristics are shown in Table 1, and occupational types are presented in Table 2.

### 3.4 Reliability and Validity Measures

To ensure reliability, two measures were implemented: (1) triangulation, using different methods to investigate the same participants and comparing results for consistency; and (2) faithful analysis of original data without preset answers or fabricated facts, with some participants invited to review the data collection and analysis process.

To ensure validity, two measures were adopted: (1) reflexivity, maintaining a “blank mind” by suspending personal assumptions throughout the research while maintaining rational sensitivity to integrate knowledge, action, and reflection; and (2) “outsider” review, inviting some participants from related studies to review the research process, data, and results as outsiders to eliminate blind spots.

## 4. Manual Coding

After initial data collection, the researchers organized and manually coded the original interview data by conceptualizing sentences and segments through labeling. Since initial concepts derived directly from participants' words were relatively low-level, numerous, and partially overlapping, related concepts were further summarized and refined to achieve conceptual categorization. A sample of manual coding is shown in Table 3 .

## 5. Category Extraction

Focusing on two research questions—"What processes do visually impaired users experience in information seeking in work-task contexts?" and "What are the characteristics of their information seeking behavior?"—this study analyzed interview and observation data from 26 visually impaired individuals through coding analysis. Categories were extracted at multiple levels, including four main categories (startup, preparation, implementation, and help-seeking) and several subcategories. This yielded the core concept of information seeking behavior process, and based on this, a theoretical framework for visually impaired users' information seeking behavior in work-task contexts was established, as shown in Figure 1 [Figure 1: see original paper].

## 6. Empirical Results

Based on this theoretical framework (Figure 1), the study employed theoretical coding from classical grounded theory to compare and summarize the relationships among categories obtained through substantive coding, constructing a model of visually impaired users' information seeking process in work-task contexts, as shown in Figure 2 [Figure 2: see original paper].

### 6.1 Information Seeking Process

As shown in Figure 2, the information seeking process of visually impaired users in work-task contexts can be divided into four stages: (1) **Startup stage**: generation of information seeking motivation, where strong information needs become conscious and transform into motivation—the fundamental driving force of information behavior; (2) **Preparation stage**: information source selection, where users evaluate and filter sources based on their needs; (3) **Implementation stage**: execution of information seeking strategies through externalized activities to obtain information; and (4) **Help-seeking stage**: seeking external assistance when encountering difficulties.

The "startup—preparation—implementation—help-seeking" process is non-linear and cyclical. Visually impaired users may complete the process after the first three stages, transition to help-seeking after any of the first three stages, or cycle through all stages repeatedly until their information needs are satisfied.

**6.1.1 Startup → Help-seeking** As described by Y-M-14 (massage therapist): “If I encounter a patient and I’m uncertain about the diagnosis or treatment technique, I directly ask my senior colleague.” With only two years of experience, Y-M-14 transitions directly from startup to help-seeking when facing clinical questions.

**6.1.2 Startup → Preparation → Help-seeking** As described by Z-M-08 (music composer): “Sometimes I need online materials or e-books, but I can’t use computers, so my students help me download them and record them onto my audiobook player.” Music composition requires continuous theoretical enrichment, and after generating motivation and selecting sources, Z-M-08 seeks student assistance to obtain music theory materials.

**6.1.3 Startup → Preparation → Implementation → Help-seeking** As described by H-M-19 (massage therapist): “I don’t wait for difficult cases to look up information. When there are no patients, I read books (braille materials) to compile training textbooks for blind massage practitioners. The materials at hand are insufficient, so I need to search online. When I can’t manage computers or internet, I ask students for help—they can find and download materials for me.” With rich experience and senior professional title, H-M-19 generates motivation, selects sources, and conducts independent searches, but still transitions to help-seeking rather than concluding the process.

**6.1.4 Startup → Preparation → Implementation → Help-seeking (Cycling)** Visually impaired users may not end their information seeking after the help-seeking stage. When needs remain unmet, new seeking motivations emerge, returning them to the startup stage. As described by D-M-16 (massage therapist): “I participated in compiling a teaching textbook on massage therapy that needed blind teachers’ involvement. I found inconsistent explanations of some knowledge points across different books, so I needed to read more books and compare them with my clinical experience. I also searched online medical professional websites and accessed papers through our hospital’s paid database. After finding information, I could ask people—moving up from colleagues and friends to teachers and finally experts—then return to search for more materials myself.” D-M-16’s information seeking is not a simple linear process but demonstrates cyclical patterns when information needs are unmet.

## 6.2 Characteristics of Information Seeking Behavior

**6.2.1 Startup Stage: Information Seeking Motivation** Information seeking motivation is the direct cause and driving force of information behavior, capable of motivating and promoting effective information actions. The study found that visually impaired users generate two distinct types of information needs when completing specific work tasks or changing their knowledge structures, which in turn stimulate corresponding information seeking motivations.

(1) **Task-driven motivation.** This refers to information needs generated to solve specific work problems or complete particular tasks. As L-D-21 (clerical worker) described: “Once a blind person from our Disabled Persons’ Federation asked for my help finding a storefront. Since I can see a little—enough to see luminous screens on phones and computers—I searched online for rental information.”

(2) **Knowledge accumulation motivation.** Beyond completing specific tasks, visually impaired users have information needs related to learning and changing their knowledge states. This motivation is closely related to work-based learning and aims to accumulate knowledge relevant to their profession. As Z-D-01 (teacher) explained: “I subscribe to *Health and Life* and similar magazines, which provide many materials I can use in my ethics classes.”

**6.2.2 Preparation Stage: Information Source Selection** After generating information needs and motivations, visually impaired users transition to the preparation stage, where they filter appropriate information sources. Based on usage patterns, this study categorizes information sources by carrier type into traditional sources, new sources, and interpersonal sources, and by language format into ordinary text and braille.

(1) **Centralized selection of new information sources.** The internet has become a crucial channel for visually impaired users. With advances in internet and assistive technologies, new web-based sources are increasingly favored. Their selection shows clear concentration: (a) widespread use of search engines and electronic literature; (b) minority use of blogs and forums; (c) occasional use of digital libraries; and (d) rare use of academic databases.

(2) **Personalized selection of traditional information sources.** While utilization of new sources is high and traditional source use is declining, visually impaired users have not abandoned traditional sources. Their selection demonstrates personalization, with books, journals, newspapers, and information institutions all serving as sources.

(3) **Localized selection of interpersonal information sources.** Visually impaired users follow a proximity principle, first relying on their own knowledge accumulation, then accessing information through social and professional circles.

(4) **Preference for ordinary text formats.** Despite varying degrees of visual impairment and braille proficiency, most participants prefer ordinary text sources, occasionally supplemented by braille. This shift relates to insufficient braille publication volume, limited variety, outdated content, and the development of internet and assistive technologies.

(5) **Diversified source selection.** Visually impaired users typically employ multiple sources rather than relying on a single one. Higher education levels correlate with richer source selection, while lower education levels correlate with more limited, interpersonal-dependent source choices.

**6.2.3 Implementation Stage: Information Seeking Execution** This stage involves actual information seeking behaviors after source selection. Analysis reveals three strategies: goal-oriented retrieval, non-goal-oriented browsing, and interpersonal communication.

(1) **Simplified goal-oriented retrieval.** Retrieval is a purposeful, planned behavior with clearly expressed needs. Visually impaired users demonstrate distinctive approaches, requiring screen-reading software and relying on auditory rather than visual information. Simple keyword searches are most common, with preference for clean interfaces and bookmarked sites. Advanced techniques and academic databases are rarely used.

(2) **Normalized non-goal-oriented browsing in electronic contexts.** Beyond solving specific problems, visually impaired users engage in browsing activities guided by work domains and interests, typically without specific goals. Browsing and information encountering often alternate to accumulate domain knowledge, primarily limited to electronic resources.

(3) **Simplified informal communication.** In library and information science, interpersonal communication divides into formal and informal types, distinguished by whether scientific literature systems mediate the exchange. Interpersonal communication is crucial for visually impaired users, who prefer informal channels like meetings and online communication, with relatively singular forms.

**6.2.4 Help-seeking Stage** Broadly defined, help-seeking involves actively requesting assistance, advice, or support. This stage involves visually impaired users seeking help for information location and acquisition. Help content directly relates to work tasks and can be categorized as autonomous or dependent help-seeking.

(1) **Diversified autonomous help-seeking.** Autonomous help-seeking aims to enhance the seeker's capabilities for independent future problem-solving. Participants commonly engage in this to obtain information or skills, seeking help from diverse sources including family, colleagues, students, teachers, and experts at conferences or training sessions.

(2) **Singular dependent help-seeking.** Dependent help-seeking relies on others to directly solve problems without concern for methods or processes. Participants primarily use this for supportive help or device usage, with help-seeking objects typically limited to cohabiting family members.

## 7. Conclusion and Discussion

### 7.1 Research Conclusions

Using grounded theory and 26 visually impaired participants, this study's conceptual analysis through substantive and theoretical coding reveals: (1) The information seeking process comprises four non-linear stages; (2) Users exhibit

task-driven or knowledge accumulation motivations; (3) They prefer internet-based new sources while maintaining personalized traditional source use; (4) They demonstrate simplified goal-oriented retrieval, normalized non-goal browsing, and simplified informal communication; (5) They employ different help-seeking types to obtain different information content.

## 7.2 Comparative Analysis

Compared to non-visually impaired users in work-task contexts, visually impaired users show distinct individual differences. They require assistive tools like screen readers for web and electronic resources, primarily using keyword searches rather than advanced techniques. Interpersonal communication serves as an important channel beyond just help-seeking. Help-seeking purposes may involve either direct problem-solving or capability enhancement, with work tasks influencing help content and determining help type.

Compared to daily life and academic information seeking contexts, work-task contexts generate more purposeful motivations closely related to work tasks or domain knowledge. While primarily using new sources, users maintain personalized traditional source use, follow proximity principles for interpersonal sources, and pursue source diversification.

## 7.3 Research Limitations

This study has limitations. First, although participants covered 10 occupations, massage therapists were disproportionately represented, limiting sample diversity. Future research should expand sampling scope, increase sample size and occupational diversity, and incorporate factors like degree of visual impairment, causes of blindness, and information literacy training. Second, while classical grounded theory was employed and original data were faithfully followed, the researchers' coding and analytical capabilities may have limitations requiring further validation.

## 7.4 Implications and Recommendations

Due to visual impairment, visually impaired users must rely on other senses or assistive technologies, creating information access difficulties and placing them in an unequal information environment. Visually impaired services in China started relatively late, with staff professional skills, psychological acceptance, and service levels needing improvement. Lack of relevant services or knowledge about accessing them limits professional capabilities.

Public libraries bear social education responsibilities and should incorporate disability services into basic service scopes with long-term, regular information and education services. Recommendations include: developing accessible digital library platforms with simple interfaces for remote resource retrieval; constructing library websites using accessible design standards; providing free reference

services through proxy searching, home delivery, and format conversion; forming information mutual aid alliances with university libraries and China Braille Library; and collaborating with government, enterprises, and Disabled Persons' Federations to garner broader social support.

## References

- [1] Yuan Jiarui, Deng Xiaozhao. Review of research progress on visually impaired users' information seeking behavior[J]. *Library and Information Service*, 2017, 61(10): 141-148.
- [2] Beverly CA, Bath PA, Barber R. Health and social care information for visually-impaired people[J]. *Aslib Proceedings*, 2011, 63(2/3): 256-274.
- [3] Moore N. The information needs of visually impaired people: a review of research for the RNIB[M]. London: Royal National Institute for the Blind, 2000: 3-15.
- [4] Williamson K, Schauder D, Stockfeld L, et al. The role of the Internet for people with disabilities: issues of access and equity for public libraries[J]. *The Australian Library Journal*, 2001, 50(2): 157-174.
- [5] Adetoro N. Reading interest and information needs of persons with visual impairment in Nigeria[J]. *South African Journal of Libraries & Information Science*, 2010, 76(1): 49-56.
- [6] Šehić S. Persons with sensory impairments: information needs and library services[D]. Osijek: University of Osijek, 2010.
- [7] Davies JE. An overview of international research into the library and information needs of visually impaired people[J]. *Library Trends*, 2007, 55(4): 785-795.
- [8] Mwaura PN. The health seeking behaviour of visually impaired patients: a case study of Kikuyu Eye Hospital, Kiambu District[D]. Nairobi: University of Nairobi, 2009.
- [9] Chen Yanwei. Development and reflection on library activities for visually impaired readers[J]. *Library World*, 2015(1): 42-44.
- [10] Tan Xiuwen. Information needs and service strategies for blind readers in public libraries[J]. *Library World*, 2013(2): 59-62.
- [11] Yang Junying, Zhao Linjing, Zheng Hong. Reflections on accessible digital library construction from visually impaired users' information needs[J]. *Library World*, 2011(2): 41-43.
- [12] Li Wanbin, Li Yana. Investigation and analysis of information needs of visually impaired readers in public libraries[J]. *Library Tribune*, 2013, 33(4): 77-81, 53.
- [13] Zhang Yue, Zhao Ying, Xu Enyuan, et al. Analysis of international research cases on visually impaired users' information needs[J]. *Library Construction*, 2009(6): 66-69.
- [14] Liao Shuzhen, Liu Beijun. Blind people, blind education, and libraries[J]. *Book Fragrance Quarterly*, 1991(8): 34-40.
- [15] Zhang Hanwen. Investigation of information seeking behavior of visually impaired persons: a case study of Taiwan Provincial Private Blind Reconstruction Institute[J]. *Bulletin of the Library Association of China (Taiwan)*, 2000(64): 127-139.
- [16] Wang Sufang. Preliminary exploration of information access issues for urban disadvantaged groups in China[J]. *Library and Information Knowledge*, 2004(1): 34-36.
- [17] Wu Huiru. Research on current status of services for visually impaired groups in Guangzhou public libraries[J]. *Library Tribune*, 2009, 29(2): 36-38, 117.
- [18] Seyama L, Morris CD, Stilwell C. Information seeking behaviour of blind and visually impaired students: a case study of the University of KwaZulu-Natal, Pietermaritzburg Campus[J]. *Mousaion*, 2014, 32(1): 1-22.
- [19] Šehić S, Tanack-

ovic SF. Exploration of academic information seeking and library use of the blind and visually impaired students in Croatia[C]//LIDA. Libraries in the digital age. Osijek: University of Osijek, 2014: 51-57. [20] Saumure K, Given LM. Digitally enhanced? An examination of the information behaviours of visually impaired post-secondary students[J]. Canadian Journal of Information and Library Science, 2004, 28(2): 25-42. [21] Yuan Jiarui. Analysis of computer training classes for blind people in public libraries: based on Chongqing blind survey[J]. Contemporary Library, 2013(3): 51-53. [22] Craven J. Access to electronic resources by visually impaired people[J]. Information Research, 2003, 8(4): 667-668. [23] Brunsman-Johnson C, Narayanan S, Shebilske W, et al. Modeling web-based information seeking by users who are blind[J]. Disability & Rehabilitation Assistive Technology, 2011, 6(6): 511-525. [24] Saumure K, Given LM. Information seeking in a digital context: exploring the horizons for visually impaired post-secondary students[C]//Proceedings of the annual conference of CAIS. Toronto: Canadian Association for Information Science, 2013: 151-162. [25] Kim HK, Han SH, Park J, et al. The interaction experiences of visually impaired people with assistive technology: a case study of smartphones[J]. International Journal of Industrial Ergonomics, 2016, 55(9): 22-33. [26] Coard P. The impact of assistive technology on visually impaired computer users accessing the internet[C]//Proceedings of 15th annual NACCQ. Hamilton: NACCQ, 2002: 201-210. [27] Alves CC, Monteiro GB, Rabello S, et al. Assistive technology applied to education of students with visual impairment[J]. Rev Panam Salud Publica, 2009, 26(2): 148-152. [28] Mutua FB. Impact of assistive technology intervention on visually impaired students' performance in Kiswahili in public primary teachers' colleges in Kenya[D]. Nairobi: University of Nairobi, 2013. [29] Mugo BC. Assistive technology and access to quality instruction for blind and visually impaired students: a comparative study of Kenyatta University, Kenya and Syracuse University, USA[D]. Nairobi: Kenyatta University, 2014. [30] Sahib NG, Tombros A, Stockman T. A comparative analysis of the information-seeking behavior of visually impaired and sighted searchers[J]. Journal of the American Society for Information Science and Technology, 2012, 63(2): 377-391. [31] Williamson K, Schauder D, Bow A. Information seeking by blind and sight impaired citizens: an ecological study[J]. Information Research, 2000, 5(4): 4-5. [32] Carang MM, Lima JF. Survey model of the information behavior of persons with sensory impairments[J]. Journal of Information Science & Technology, 2012, 6(2): 53-68. [33] Beverly CA, Bath PA, Barber R. Can two established information models explain the information behaviour of visually impaired people seeking health and social care information?[J]. Journal of Documentation, 2007, 80(1): 1189-1196. [34] Leide JE, Cole C, Beheshti J, et al. Task-based information retrieval: structuring undergraduate history essays for better course evaluation using essay-type visualizations[J]. Journal of the American Society for Information Science and Technology, 2007, 58(9): 1227-1241. [35] Bystrom K, Järvelin K. Task complexity affects information seeking and use[J]. Information Processing & Management, 1995, 31(2): 191-213. [36] Belkin NJ, Oddy RN, Brooks HM. ASK for information retrieval: part I. background and theory[J]. Journal of Documentation, 1982, 38(2): 61-71. [37] Kim JH. Task as

a predictable indicator for information seeking behavior on the web[D]. New Brunswick: Rutgers University, 2006. [38] Leckie GJ, Pettigrew KE, Sylvain C. Modeling the information seeking of professionals: a general model derived from research on engineers, healthcare professionals and lawyers[J]. *Library Quarterly*, 1996, 66(2): 161-193. [39] Freund L, Toms EG, Waterhouse J. Modeling the information behavior of software engineers using a work-task framework[M]. Cambridge: Harvard University Press, 2005: 535-548. [40] Li Yuelin, Zhang Jia. Task-based personalized information retrieval user model[J]. *Information Studies: Theory & Application*, 2015, 38(5): 60-65. [41] Denscombe M. How to do a small-scale research project: a guide for social research[M]. Translated by Tao Baoping. Shanghai: Shanghai Education Press, 2011: 73. [42] Qu Haiyuan. Social and behavioral research methods (II): qualitative research methods[M]. Beijing: Social Sciences Academic Press, 2013: 59. [43] Glaser BG. Theoretical sensitivity: advances in the methodology of grounded theory[J]. *Journal of Investigative Dermatology*, 1978, 2(5): 368-377. [44] Packer-Muti B. A review of Corbin and Strauss' basics of qualitative research: techniques and procedures for developing grounded theory[J]. *The Weekly Qualitative Report*, 2009, 2(23): 140-141. [45] Tian Lin. Review of grounded theory and its practical application[J]. *Economic Research Guide*, 2012(10): 224-225, 231. [46] Qiu Liping. Social research methods[M]. Chongqing: Chongqing University Press, 2008: 162-163. [47] Li Shuning. Research on network user information behavior[J]. *Library Science Research*, 2004, 25(7): 82-84. [48] Hu Yaping, Pan Binbin, Ye Fengyun. Research on competitive intelligence workers' information searching and utilization behavior[J]. *Information Studies: Theory & Application*, 2015, 38(2): 1-5. [49] Liu Hanqin, Zheng Hong. Review of research on art school teachers' information seeking behavior abroad[J]. *Modern Information*, 2013, 33(9): 166-170. [50] Qiao Huan. Information behavior science[M]. Beijing: Beijing Normal University Press, 2010: 162-163. [51] Deng Xiaozhao. Research on network user information behavior[M]. Beijing: Science Press, 2010: 122-123. [52] Huang Shuiqing, Wang Chao. Concepts, categories and characteristics of informal information exchange in network environment[J]. *Library Journal*, 2004(6): 8-11. [53] Lee F. When the going gets tough, do the tough ask for help? Help seeking and power motivation in organizations[J]. *Organizational Behavior & Human Decision Processes*, 1997, 72(3): 336-363. [54] Nadler A. Relationship, esteem, and achievement perspectives on autonomous and dependent help seeking[C]//Karabenick S A. *Strategic help seeking: implications for learning and teaching*. Mahwah: Lawrence Erlbaum Associates Publishers, 1998: 61-93. [55] Mao Changguo, Sun Jianmin. Help seeking behavior in organizations[J]. *Advances in Psychological Science*, 2011, 19(5): 731-739.

**Author Contributions:** Yuan Jiarui: data collection and analysis, paper writing; Deng Xiaozhao: research guidance, framework design, revision and review.

## Call for Papers

**Knowledge Management Forum** (ISSN 2095-5472, CN 11-6036/C) has obtained formal online publication qualification from the State Administration of Press, Publication, Radio, Film and Television. In 2016, the journal was completely redesigned with annual thematic focuses, and in 2017, it was included in the internationally renowned Directory of Open Access Journals (DOAJ). The journal focuses on knowledge production, creation, organization, integration, mining, sharing, analysis, utilization, and innovation across government, enterprise, university, library, and other organizational contexts. It welcomes submissions on theories, methods, tools, technologies, applications, policies, solutions, and best practices related to knowledge management.

**2018 Focus Areas:** Internet + Knowledge Management, Big Data and Knowledge Organization, Communities of Practice and Knowledge Operations, Content Management and Knowledge Sharing, Knowledge Creation and Open Innovation, Data Mining and Knowledge Discovery.

**Submission Guidelines:** 1. Manuscripts should address knowledge-related topics, focusing on knowledge management, services, and innovation. Articles may emphasize theory or application, technology, methods, models, or best practices. 2. Submissions must be substantive, theoretically grounded, and practically relevant, with clear research purposes and appropriate methods. 3. All manuscripts undergo similarity detection and peer review, including editorial initial review, re-review, and final review. 4. Length is flexible, but typically 4,000-20,000 words. 5. Authors will be notified of acceptance decisions within one month. 6. Articles are primarily published online via the journal website ([www.kmf.ac.cn](http://www.kmf.ac.cn)) and authorized databases, with immediate open access and rapid publication upon acceptance.

**Submission:** Please submit manuscripts at [www.lis.ac.cn](http://www.lis.ac.cn), noting “Knowledge Management Forum Submission.”

**Contact:** Tel: 010-82626611-6638; Contact: Liu Yuanying

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

*Source: ChinaXiv — Machine translation. Verify with original.*