

MODELS OF INFORMATION SEEKING BEHAVIOR: A BRIEF OVERVIEW

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Abstract :

This study explores a qualitative examination of information needs and information-seeking behavior. This paper generally shows the interrelationship between communication and information behavior as well as information need and information seeking. This method includes the study of various information behavior models selected randomly, a systematic review of the subject literature, and an exploration of qualitative research methods. The purpose of this study is to evaluate and review information seeking models. The paper shows how the different factors influence the information needs of user groups. This paper analyzes the views of different thinkers on information seeking and information behavior and also identifies the test groups of the model. Through this brief overview, we also suggested that each model represents a different but also an overlapping or similar approach to information-seeking behavior research.

Key words: information needs, information Seeking behaviour, information behaviour models.

1. Introduction:

In the realm of information science, 'Models of Information Seeking Behavior' serves as a captivating subject warranting a brief but insightful overview. These models, often intricately designed and empirically grounded, aim to unravel the complexities of how individuals seek, access, and utilize information in various contexts Wilson (1999). This exploration involves a survey of diverse theoretical frameworks, each offering a unique lens through which information-seeking behavior can be understood. Whether rooted in cognitive processes, user interactions, or sense-making theories, these models collectively contribute to a comprehensive understanding of the dynamic relationship between individuals and information sources. Through this brief overview, we embark on a journey to appreciate the diversity and nuances encapsulated within the multifaceted landscape of information-seeking behavior models.

2. Objectives:

The objectives of the present paper are given below:

- To develop insights into different selective information seeking behavior models.
- To develop a collective understanding of users' information behavior from the information seeking behavior models.
- To examine the interrelationships between different models.

3. Research Methodology:

The information behavior models are extensive, and those crafted by information scientists may not universally apply to all user groups. The current study adopts a qualitative

approach, analyzing a selectively chosen set of models applicable to information users. Drawing data from diverse journals, the investigation meticulously scrutinizes selective randomly selected models, subjecting them to thorough evaluation to derive meaningful findings.

4. Need of the Study

In the digital age, grasping how individuals seek, access, and use information is crucial for improving information systems. The research aims to the utilization of the required information to complete a task, offering valuable insights into the nuanced aspects of information-seeking behavior and ensuring the relevance of theoretical frameworks in an ever-evolving informational environment.

5. Definition of Information Seeking Behavior:

Information Seeking Behavior is the systematic process individuals employ to search, access, and utilize information to meet their specific needs or address inquiries. It encompasses a wide range of actions, including querying databases, consulting various sources, and interacting with information systems, all driven by the desire to obtain relevant and meaningful information.

Wilson, (1999) considers Information behaviors as “those activities a person may engage in when identifying his or her own needs for information, searching for such information in any way and using or transferring that information.”

6. Models of Information Seeking Behaviour:

A model can be conceptualized as a thinking framework, often manifesting as a statement outlining the interconnections between theoretical propositions. In the realm of information behavior, most models fall into the descriptive category, often presented as diagrams. They aim to elucidate aspects of information-seeking activities, causes, consequences, or the sequential relationships within information-seeking behavior stages. While these models typically remain at a pre-theoretical stage, they may hint at relationships worthy of exploration or testing. Each model has been systematically discussed.

6.1 Wilson’s (1981) Model of Information Behaviour:

Wilson's 1981 model, illustrated in Figure 6.1, introduces "information seeking for behavior" as an alternative to traditional information seeking. In this conceptualization, an information stakeholder perceives a need at various stages, prompting an information purchaser to make requests from formal or informal sources to fulfill that need. The success or failure of these requests determines the progress in finding suitable information. If successful, the individual utilizes the information, partially or fully satisfying the perceived need. Additionally, the model highlights the social aspect of information seeking, where individuals may exchange information, sharing valuable findings with others. This collaborative exchange emphasizes that information may not only be used by the original seeker but also passed on to others in the process.

6.2 Wilson’s (1996) Model of Information Behaviour:

Wilson developed another model that is a revision of his 1981 model of information behavior. 1996 This model, known as Wilson's model shown in Figure 6.2, presents a cycle of information activities from identifying needs to using information. Rooted in the structure of the original model, the 1996 version emphasizes "intervening variables" as a third group, explaining the evolution of barriers to information seeking while identifying needs. These

variables include psychological, demographic, role-related, interpersonal, environmental, and resource characteristics. Notably, the 1996 model introduces a new dimension—'information seeking behavior'—as a fifth group, consisting of passive attention, passive search, active search, and ongoing search. This improvement captures the different ways individuals engage in the information seeking process.

6.3 Dervin's (1983) Sense-making Model:

In Figure 6.3, Information seeking is portrayed as a process of bridging gaps, where individuals make strategic moves, influenced by information, to attain specific outcomes or goals. The model suggests an information-seeking process wherein learners initially recognize a need for information, and the provision of the required information is crucial for meeting that need. As learners search for information, they become cognizant of the current situation and progress toward their goal. The model emphasizes the need for control in each movement within a particular context. Unlike viewing information as a mere entity to fulfill a need, this model, akin to a Trogon, encourages contemplation about information, with four factors representing a moment that delineates issues between the existing and desired scenarios. Developed by Brenda Dervin and her associates since 1972, this model aligns with a broader sense-making approach.

6.4 Information Search Process Kuhlthau's (1991) :

As shown in Figure 6.4, Carol Kuhlthau's Information Search Process (ISP) model, developed in 1991, describes the information-seeking process as a series of stages that individuals go through when faced with a task or problem that requires information. The model emphasizes the emotional and cognitive aspects of the information-seeking experience. Following is a description of the six stages of the ISP as revealed in the findings of the initial study.

Initiation: The process begins with the individual becoming aware of a need for information. This stage is characterized by uncertainty and a lack of clarity about the scope of the information needed. **Selection:** In this stage, individuals begin to explore and select general topics related to their information need. They may experience confusion and apprehension as they try to narrow down their focus. **Exploration:** As users delve deeper into their chosen topic, they explore various sources of information to gain a better understanding. This stage is marked by a mix of emotions, including optimism and doubt. **Formulation:** At this point, individuals start to refine their information needs and develop a clearer idea of what specific information they are seeking. They may experience a sense of direction and purpose. **Collection:** In the collection stage, individuals actively seek out and gather information from selected sources. This is a focused and purposeful phase of the process. **Presentation:** At this stage the task is to complete the search and to prepare to present or otherwise use the findings.

6.5 Ellis's (1989) model of behaviour:

As illustrated in Figure 6.5, Ellis's Information Seeking Behavior Model (1989) categorizes information-seeking behavior into six strategies, providing insights into how individuals approach the process:

Starting: Individuals begin their search with a known item or clear idea. **Chaining:** Users follow a trail of references, moving from one source to another. **Browsing:** Individuals scan available information casually to get a sense of the content. **Differentiating:** Users explore

diverse sources to gather varied perspectives. **Monitoring:** Individuals keep updated on specific topics over time. **Extracting:** Users systematically gather information from selected sources.

6.6 Blom's, (1983) Task Performance Model of information behaviour:

As depicted in Figure 6.6, the study of the factors that influence the information needs and information-seeking behaviour of consulting engineers within the contexts of problem-solving and decision-making in work situations can also be illuminated by studying Blom's Task Performance model. Blom's (1983) Task Performance Model is based on Blom's research into scientists' information needs and its use. The theory is based on the following hypothesis:

1. The arrangement of a data administration which is to add to fruitful assignment execution of the potential clients.
2. Information is a contribution to take care of issues, making judgment, improvement of any planned activities to expand mindfulness.
3. Data which needs or errand execution needs as the necessities for data to achieve a distinct activity.
4. The variables viz. individual qualities, region of issues, the sorts of logical order, hierarchical conditions manage one another.

6.7 Bystrom and Jarvelin's (1995) Information Seeking model:

Bystrom and Jarvelin (1995) proposed a process model to frame information need and seeking for as a critical thinking process see the figure 6.7 underneath. At the outside dimension, they attempted to indicate information seeking for as a course of needs investigation, choice of activities, usage of looking for activities and assessment of the outcomes. The information-seeking process starts with a perceived information need in performing the work task at hand. The task performer then analyzes the need by deciding what information would be sufficient to cope with the situation. This procedure relies upon various situational, individual, and hierarchical factors just as the apparent undertaking. This model causes precise connections between assignment multifaceted natures, kind of information looked for and sort of information source. As found in chart the Bystrom and Jarvelin model indicates how the information need investigation, the decision of activity, the usage of the inquiry lastly the assessment of the results or the information pursuit is reliant or impacted by the apparent undertaking, individual and situational factors, the association and individual information seeking for style.

6.8 Leckie's, et. al.(1996) Model of Information Seeking of Professionals:

As depicted in Figure 6.8, this model depends on the assignment and errand execution of professionals such as engineers, doctors and lawyers. This model features six factors connected by arrows flowing down from the top. They centred on the impact of the expert's work, jobs and undertakings on their information seeking behaviour. They inspected the information seeking behavior of administrators, scholastics, scientists, specialists, medical attendants, designers, legal counsellors, and a few others, and concentrated on how data rehearses do well in the setting proficient work, information related tasks to improve or change for the advancement. When five factors are unidirectional one factor is bidirectional. According to this model the factor 'work role' enables 'tasks' to perform. The performance of the tasks creates information needs. The model shows information seeking behaviour as a bidirectional arrow labelled as 'information is sought'. The factor termed as 'outcomes' is the end result

which connects the factors 'source of information', 'awareness of information' and 'information is sought' through feedback arrows.

6.9 Cheuk Wai -Yi's (1998) Information-Seeking and Process Model:

Cheuk Wai-Yi's Information-Seeking and Using (ISU) Process Model, based on Dervin's Sense-making approach, illustrates dynamic information-seeking behaviors within various professional user groups. The model identifies seven crucially different situations, including task initiating, focus forming, ideas assuming, confirming, rejecting, finalizing, and passing on ideas. These situations are interconnected with information-seeking aspects like source selection, relevance judgment, organization, presentation strategies, feelings, and information definition. Wai-Yi establishes a systematic and predictable process, asserting that individuals move among these situations in multidirectional paths. Notably, even within the same professional group, individuals exhibit diverse information needs despite using similar sources and channels.

6.10 Zipf's (1949) Principles of Least Effort:

The Principle of Least Effort was proposed in 1949 by Harvard linguist George Kingsley Zipf in 'Human Behavior and the Principle of Least Effort.' According to Zipf (1949) each individual will adopt a course of action that will involve the expenditure of the probable least average of his work, in other words the least effort. Zipf theorised that the distribution of word use was due to tendency to communicate efficiently with least effort. Hence, the principle of least effort is also known as Zipf's Law.

7. Finding:

Wilson's Models, 1981 model outlines stages like recognition of need, search, and use, while the 1996 model introduces cycles of information activities and intervening variables that impact the process. Kuhlthau's (ISP) Model (1991) focuses on the emotional and cognitive aspects of information seeking. Ellis's (ISB) Model (1989) provides insights into the diverse ways individuals approach information seeking. Dervin's Sense-Making Model (1983) focuses on how individuals actively construct meaning from information during the process of information-seeking, especially in changing circumstances. Blom's (1983) task performance model addresses how information plays a critical role in the effective execution of tasks and decision-making processes by considering individual and organizational factors. Bystrom and Jarvelin's (1995) Information Seeking model provides a foundational understanding of users' interactive information-seeking behavior, emphasizing the importance of situational factors in the search process. Leckie's (1996) Model of Information Seeking of Professionals offers a concise and insightful framework that illuminates the information-seeking behaviors of professionals. Cheuk Wai-Yi's (1998) Information seeking and using process model provide for the study of the way in which individuals perceive and bridge cognitive gaps to make sense of their world. Zipf (1949) theorized that word usage distribution stems from a inclination to communicate efficiently with minimal effort.

Conclusion:

It is clear from the above analysis that although each model has a different form, it represents a similar approach for information-seeking behaviour. These models provide valuable frameworks for researchers and practitioners to explore and understand the complexities of Information Seeking Behavior in various contexts, taking into account

psychological, social, and environmental factors. Information use is also a process in all models and includes many factors such as how individuals seek information, identify information needs, decide to use information, select information sources, collect, interpret and process information. The outcome of the information acquisition process is the effective utilization of both received and necessary information, ensuring the acquisition of pertinent required information for the completion of a given task.

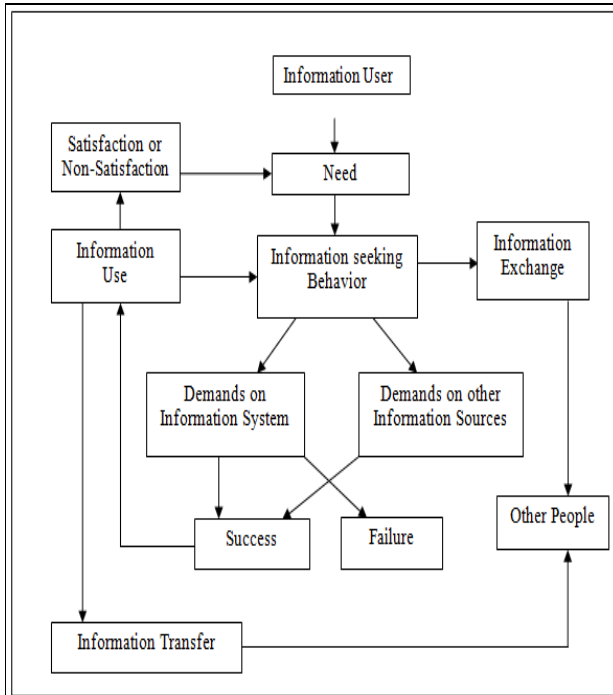


Figure 6.1 Wilson's (1981) model of Information-seeking Behavior

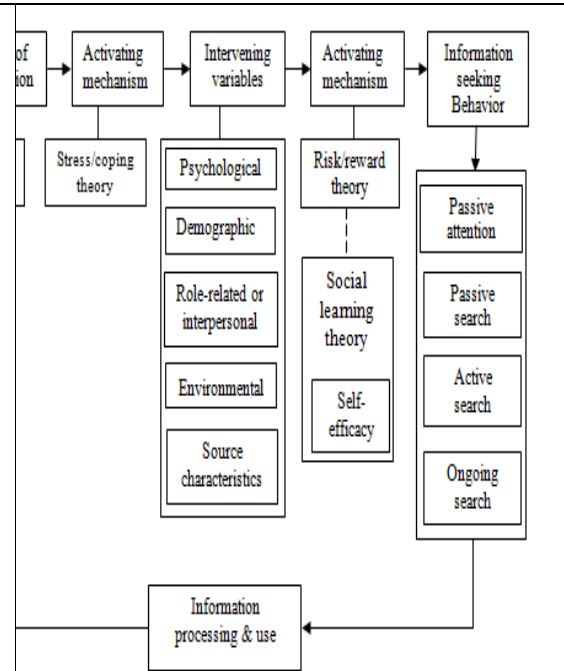
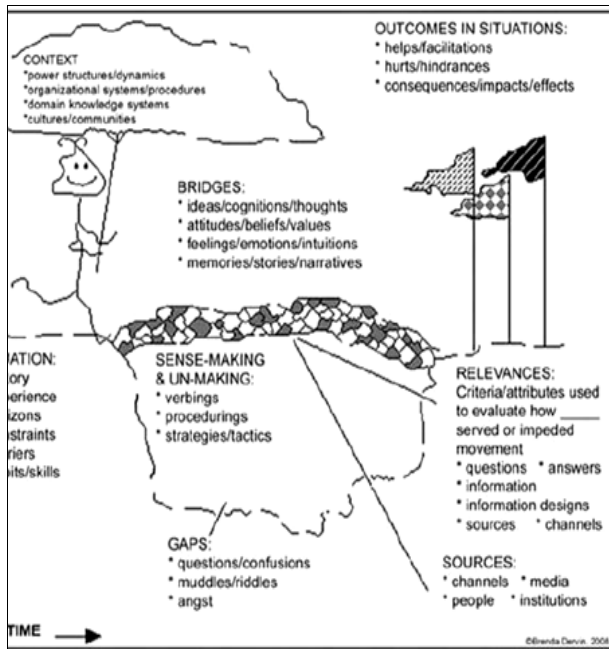


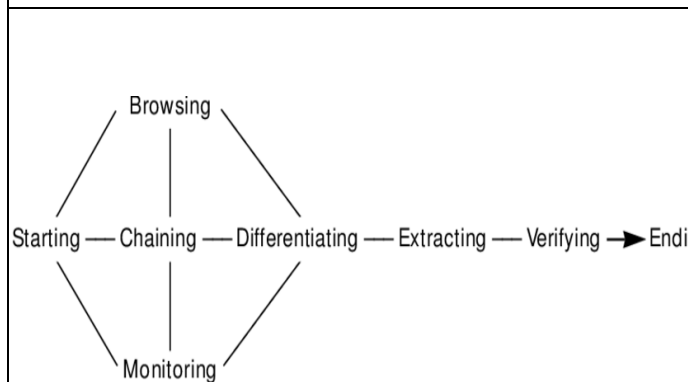
Figure 6.2 Wilson's (1996) model of Information-seeking Behavior



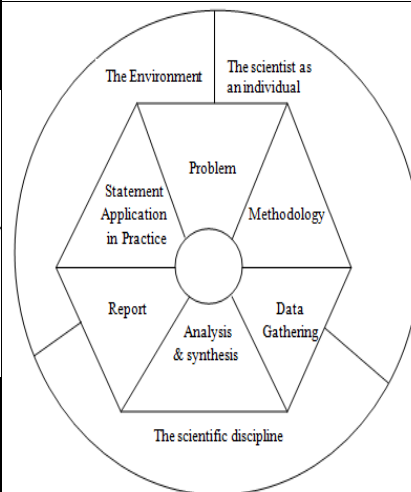
6.3 Dervin's (1998) Sense-making Model.

Initiation	Selection	Exploration	Formulation	Collection	Presentation
Uncertainty	Optimism	Confusion frustration doubt	Clarity	Sense of direction/ confidence	Satisfaction or disappo- intment
Vague			Focused	Increased interest	
Seeking	Relevant	information	Seeking	pertinent information	
Exploring			Documenting		

Figure 6.4 Kuhlthau's, (1991) Information Search Process Model.



6.5 Ellis's, (1989) Model of Behaviour



6.6 Blom's (1983) scientific communication system

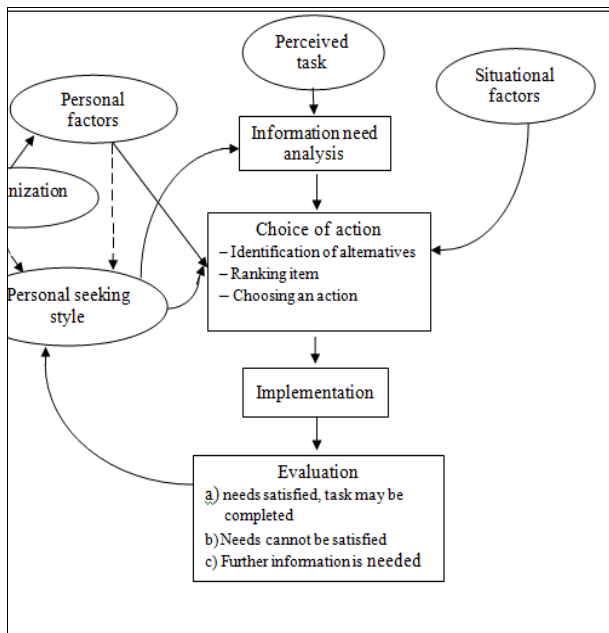


Figure 6.7 Bystrom and Jarvelin's (1995) Model of work-task information seeking

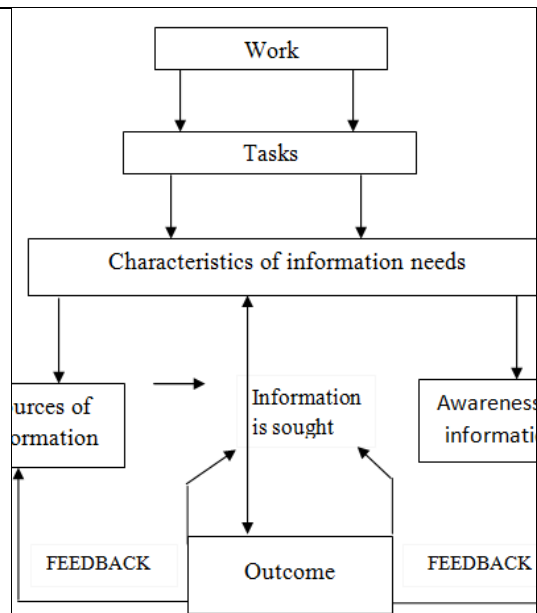


Figure 6.8 Leckie's, et. al. (1996) Model of Information Seeking of Professionals

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