

## COMPARING KUHLTHAU'S INFORMATION SEARCH PROCESS AND DERVIN'S SENSE-MAKING FRAMEWORK TO MY INFORMATION BEHAVIOR

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## **Introduction**

In order to illustrate and explain aspects of information behavior, multiple theories and models exist. These models and theories can help library and information science (LIS) professionals understand the many facets involved with information needs, seeking, and use. Models “aim to describe and explain circumstances that predict actions by individuals to find information of some kind” (Case and Given 2016, 142). Information behavior theories are an effort to link various happenings that occur when people encounter information in order to explain and predict the process (Case and Given 2016). The models and theories benefit LIS professionals in understanding that users’ context, situations, affective feelings, cognitive thoughts, and physical actions are aspects of information behavior. These aspects are portrayed in Kuhlthau’s model of Information Search Process (ISP) and Dervin’s Sense-Making theory. In an effort to better understand ISP and Sense-Making, I will analyze my information seeking experience of car research and buying. This experience reflects aspects of both the Information Search Process and the Sense-Making framework, and the comparison of my information behavior with both approaches will assist me in serving library users.

## **Description of Event**

During the summer of 2017, I was tasked with purchasing a vehicle. This purchase requires a tremendous amount of information for those unsure of their desired vehicle. Initially, I had some information and a few ideas based on my past experiences, budget, and input from relatives and friends. In order to overcome information gaps, I also collected input from websites, reviews, and dealerships (including websites and test drives). In the early seeking stages, my focus was on four different models of cars. I sought and compared information on

their prices, towing and seating capacity, cylinders, available all-wheel drive, and more. Much of this information was acquired from the car makers' websites and various web pages that provide car information. I test drove a few vehicles, and narrowed my selection to a specific make and model. Upon narrowing, I wanted to explore further before making the decision to purchase. I then discovered some information about issues with the transmissions of the car model for which I had begun negotiations. I also gained new information from two overall ranking sites. One site ranked midsize sport utility vehicles overall, and another ranked car brands based on mechanical problems. These comparisons restarted stages of my information seeking as I had not considered this top ranking brand initially. I went on to research specific car dealership website car listings and an in-person visit to a car dealership. With a test drive, dealership searching, negotiating, varying feelings, and thoughts, I had collected the needed information and made a purchase.

My search resulted in a purchase that was not part of my initial considerations because of new information received throughout the search process. I gained a tremendous amount of information and experienced moments of my ideas, thoughts, and attitudes changing. My search process went through stages and loopbacks. As my actions went through the process, my affective feelings and cognitive thoughts altered. In the end, my information search allowed me to make sense of the encountered information in order to overcome my lack of knowledge. These aspects of car buying reflected Kuhlthau's ISP model and Dervin's Sense-Making theory.

## **Analysis**

The Information Search Process model and the Sense-Making theory note stages of information behavior, affective feelings during the information seeking process, the context

involved, and cognitive changes. The ISP model includes seven stages: “initiation”, “selection”, “exploration”, “formulation”, “collection”, “presentation”, and “assessment” (Case and Given 2016). The Sense-Making theory provides a gap-bridging metaphor portraying the many facets encountered when overcoming a knowledge gap. A person’s gap is bridged as a result of the actions taken and the assembling of cognitive and affective elements (Savolainen 2006). Kuhlthau’s and Dervin’s frameworks share similarities. They both use a holistic approach that considers the affective, cognitive, and physical realms of information seekers (Savolainen 2006). It is important that LIS professionals understand this holistic approach in being able to serve users effectively. When comparing these facets, stages, and effects to my own information behavior, I am better able to understand how users may feel as they search for information. Understanding how one’s own self is affected through the process will assist that person in being able to empathize with and assist users. In an effort to better serve my future library users, I will analyze my car purchasing search using the ISP and Sense-Making frameworks.

Initially, I realized I had a gap in my knowledge of the car I should purchase. As Dervin’s metaphor portrays, this gap consisted of unanswered questions and confusions of my cognitive state (Dervin 2005). My questions were numerous, and increased, as I gained information. My affective realm compares to Dervin’s approach in that I felt confusion and angst in recognizing my “gap” (Savolainen 2006). Kuhlthau’s model labels this initial stage as “initiation” (Case and Given 2016). While much of Kuhlthau’s model was based on research of impacts on people as they fulfill academic assignments, much of my car buying experience follows the model closely. For example, the “initiation” stage began when I sold my vehicle. I realized I lacked the knowledge about which car to purchase next and was uncertain and apprehensive about the search. As the ISP model portrays, there was an awareness that I lacked

knowledge and understanding (Kuhlthau 1991). In addition, as Dervin's metaphor depicts, my context and situation had impacts at the beginning, and throughout, my search. Many aspects are involved in what Dervin labels "SITUATION." These include histories, experiences, barriers, and constraints (Dervin 2005). My history and experiences involved one car brand. My family has only purchased Chevrolet vehicles for the past twenty years. My first car purchase was a Chevrolet, and I was pleased with its performance. My barriers and constraints consisted of overcoming this car buying tradition as well as budget and fear in making the wrong decision. Some of these aspects of my situation combined with context. Cultures and communities are listed as a part of "CONTEXT" in the Sense-Making metaphor (Dervin 2005). Part of my family's culture is to buy an American made vehicle. My context also lacked the domain knowledge of the mechanics of a car. The comparison of ISP and Sense-Making to my initial information behavior actions will help me to understand that users' contexts and situations will impact them, and they may have many questions within their expressed query.

Because of the lack of knowledge at the "initiation" stage, I entered what Kuhlthau labels "selection" and "exploration" stages as I began to gather information, answer my questions, and overcome my confusions in order to begin "bridging my gap." In the "selection" stage, as Kuhlthau noted, "The outcome of each possible choice is predicted and the topic or approach judged to have the greatest potential for success is selected" (Kuhlthau 1991, 366). I had thought through a majority of the budget issues, warranty information, mechanical capabilities, etc., and decided to further my exploration to a few vehicles. During the "exploration" stage, I continued to gather information that would hopefully reveal the car for me. I still had several questions; however, I had narrowed my search to a certain make and model. My cognitive thoughts had been impacted throughout the process; however, in this stage, my cognitive sense-making

process was affected seriously because I became aware of transmission issues. This also caused emotional impacts to my affective state. Case and Given (2016) note that during the “exploration” stage, confusion, frustration, and doubt, may occur. I experienced each of these because the information I was finding did not mesh well. Here, I feel I reverted back to beginning my “exploration” stage as I went with a different car model to seek out with certainty. LIS professionals should be aware that users may also be impacted negatively during their sense-making process, and be willing to support them both cognitively and emotionally as they move through the stages.

As I repeated the exploration stage to focus on another car make, I began to enter the “formulation” stage. ““Formulation” is the turning point of the ISP when feelings of uncertainty diminish and confidence increases” (Kuhlthau 1991, 367). My cognitive and affective state became more stable as I was encountering information that was compatible on multiple sites, ranking information, and my budget. I was more confident in my search and my decision, but there was more collecting that I needed to complete to verify my decision. This began the “collection” stage.

In the “collection” stage, I was able to use the information retrieval systems more effectively because I was able to type in exact questions needed to “bridge my gap” and further my knowledge; my metaphorical bridge was “being built”. The Sense-Making metaphor portrays the bridge as being built by the cognitions and thoughts being obtained as well as the emotions, narratives, values, attitudes, and more (Dervin 2005). My cognitions and thoughts had changed, but my affective state, in particular my attitude, had changed the most. I was now collecting information about a car I never would have considered previously. I felt accomplished because I had allowed myself to consider a better rated car with a better warranty despite my

previous context and situation keeping me from considering this car initially. LIS professionals can stay attuned to the positive change in emotions to ensure the user is progressing through the collection stage as they progress toward the “presentation” stage.

I was now ready to use my finding as I entered the “presentation” stage of the ISP. I felt relief as my search had been successful, and I was ready to use my gained knowledge to decide on a specific car for which to negotiate and purchase. Lastly, I entered Kuhlthau’s “assessment” stage. I continue to be in this stage as each time I drive my car I assess my accomplishment. At this time, I do feel I have better self-esteem as my car is capable and functioning well. According to the Sense-Making metaphor, I would have “bridged my gap.” I experienced, and am still experiencing, the “outcomes” of Dervin’s metaphor. My uses of information resulted in helps, functions, consequences, and impacts as I was able to successfully purchase a car that fulfills my needs. In the completion of the stages, I am able to reflect on my varying cognitive and affective changes, and this will benefit my actions as an LIS professional.

## **Conclusion**

LIS professionals need to be aware that users experiencing information seeking will have their cognitive and affective states affected when completing the physical actions to find and use information. LIS professionals must also be conscious of each individual user’s context and situations that may impact the aforementioned states. By reflecting on how LIS professionals’ feelings and thoughts are affected by each stage and action, they will be more prepared to empathize and assist users. I will be more understanding of my user’s holistic needs because I am now aware of the times of stress, questioning, elation, and various other stages I experienced during my information seeking process.

## REFERENCES

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