10.1. Behavior concepts

Overview

Information must be organized in order to be retrieved, and information retrieval is intended, ultimately, to satisfy the information user. Without an understanding of information behavior, we would not know where to begin to best serve the user.

This module (1) provides a brief review of human information behavior concepts presented at the beginning of the course, (2) underscores the importance of research, (3) presents fundamental assumptions about information seeking, the most-researched kind of information behavior, and (4) discusses the challenges of observing user behavior.

What is information behavior?

In LIS we often refer to a user who has an information need and who engages in some behavior to seek information in a certain information environment.

- A **user** is a person who seeks information and who uses information and/or information systems in some meaningful way.

- An **information need** is the question, problem, task, or situation that motivates a user to seek information. The combined motivational factors are the **information need situation**.

- **Information behavior** is a person's actions or reactions involving information, including internal cognitive activities (thoughts, decisions, knowledge organization) and external physical activities (information organization, seeking, searching, evaluation, use).

- **Information seeking and use behavior** refers to the user's process for obtaining information, from recognition of an information need through use of information to resolve the need.

- The **information environment** is the intellectual and physical context in which information seeking and use take place.
Why is research important?

Research is necessary for understanding information behavior, both generally and in specific information environments. Information behavior research tends to focus more on end users than on information professionals and typically collects these kinds of data:

Description of users

- Demographic characteristics (age, gender, occupation, etc.)
- Levels of knowledge (general, domain, system, information-seeking)

Description of information use environment

- Situations or circumstances that motivate users to seek information (needs, problems, tasks)
- Contextual factors that constrain the situation (location, time limitations, resources available)

Observations of specific user behaviors

- Based on what users do
- Based on what users say they are thinking

Information behavior research is undertaken by both academics and professionals. For example, an information needs analysis should be conducted by professionals prior to beginning the design of a new information system or service. The needs analysis (as in your information organization project) describes users in terms of demographics, knowledge, and information need situations. Because researchers have found that users with similar demographics, knowledge, and situations tend to have similar information needs and ask similar questions, these data serve as a springboard to designing a useful IR system.

Assumptions about information seeking

A core user research area is information-seeking behavior. The research is based on certain assumptions about the fundamental nature of information-seeking processes. Understanding these assumptions can help one to understand the research. The assumptions are that information seeking is purposeful, cognitive, contextual, value-based, and dynamic.

1. Purposeful

- Information seeking is undertaken for a reason: to answer a question, solve a problem, complete a task, learn about a subject, verify a fact. (LIS seldom focuses on information seeking for entertainment.)

2. Cognitive

- Information seeking results in cognitive change in the individual. (This supports the cognitive view of information as a change in one's cognitive state.)

- It involves decision making, problem solving, and resource allocation. (Resources are things like the user's effort, time, and money.)
3. Contextual

- Information seeking occurs within both intellectual and physical contexts. (Intellectual context is related to individual's information problem and problem situation. Physical context is related to time (limitations), space (locations), objects (documents), systems (IR), etc.)

4. Value-based

- Information seeking involves concepts of value.
- Individuals select or reject information based on certain criteria or standards. (Examples of two selection criteria are relevance and usefulness.)

5. Dynamic

- Information seeking is a dynamic process.
- Information problems and needs change constantly. (This supports the process view of information as something that informs, or is active and ongoing)
- Selection criteria vary over time and depending on the situation.

Would you question any of these assumptions?

Please do! An assumption is something taken for granted, and taking things for granted can prevent one from asking questions and making discoveries. For example, the information environment has changed rapidly with the popularization of the World Wide Web. Although information seeking on the Web is purposeful, the approach is often casual, as in browsing for entertainment. Researchers must determine whether, or to what extent, this casual behavior is important to professional practice.

Another caution about assumptions: just because you are a user, don't assume you know how other users think or behave. You cannot possibly understand all users regardless of age, culture, and so forth. As an information professional, you must constantly be observant and alert to clues in the things users say and do.

Observing information behavior

The assumptions about information seeking above apply to most kinds of information behavior. These qualities make information behavior difficult to observe. The fact that it is cognitive, for instance, means that researchers often must rely on what people say they are thinking and doing as they seek information. The idea of context, or situation, is critical. Information behavior of all kinds is motivated by and exists within contexts of work, family, recreation, and so forth. These are complex, multidimensional environments that cannot be studied in laboratories. The dynamic nature of information behavior is probably its most challenging aspect. How does one study a phenomenon that is not only intangible (cognitive) but also never holds still? Most research results function as snapshots of behavior at intervals over time.

Despite these challenges, researchers have developed dozens of models to describe and explain information behavior. Although the models are theoretical, most are based on observations of users in their own information situations and environments, and these observations have proven to be remarkably consistent and enduring. Information behavior models are outlined in another module.
Other modules describe what we know about natural information organization behavior, or the ways people organize information in their everyday lives, as well as common research methods used to observe and collect data on behavior.

Unfortunately, we can only skim the surface of these topics. We hope that working on the project and thinking about users' problems, questions, and abilities has made you curious to know more!