

# Information Encountering: It's More Than Just Bumping into Information

by Sandra Erdelez

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*"A great part of the information I have was acquired by looking and finding something else on the way."*

Franklin P. Adams

When was the last time that you bumped into some information? What was that information about? The experience that you may just have recalled is "information encountering." Information encountering is a memorable experience of an unexpected discovery of useful or interesting information. Information encountering occurs when one is looking for information relating to one topic and finds information relating to another one. However, it also occurs upon bumping into information while carrying on a routine activity. Some other terms that have similar meaning are *accidental discovery of information (ADI)* and *incidental information acquisition*.

We live in an information rich environment, and it is not surprising that there are many opportunities for information encountering. So information encountering must be a common element of users' information behavior – or so we would think. Interestingly, mainstream user information behavior research in library and information science (LIS) makes little mention of it. Researchers seem to be focused primarily on information acquisition that is active and problem oriented. Furthermore, the term *information-seeking behavior* is in use as a generic term for all types of information acquisition. I believe that this label is a misnomer because passive and opportunistic information acquisition such as some types of browsing, environmental scanning or information encountering more resembles "gathering" than "hunting" – the active pursuit suggested in the term *seeking*.

There is, however, emerging interest among LIS researchers in information encountering. Williamson, Reneker and Zhang discuss accidental discovery of information in the context of a broader study of users' information behavior. Erdelez and Williamson focus specifically on information encountering and incidental information acquisition. (See **Further Reading**.) It is also important to note that accidental discovery of information has received more research in some other fields, such as "incidental learning" in education, serendipity of scientific discoveries in history of science and accidental discovery of managerial information in the management literature, than it has in LIS. Studying information encountering poses some interesting methodological problems for researchers. First, because information encountering is unexpected, it may be difficult to study it under time and space constraints of an experimental environment. The most practical solution may be to ask users to recall their information encountering experiences. But to what extent do users recognize information encountering as a unique phenomenon? Can they discuss it with a researcher? My research proves that these concerns are unfounded. A majority of participants in my information encountering study, when asked about their past experiences of "bumping into information," were familiar with the notion of accidental discovery of information and could recall these experiences clearly.

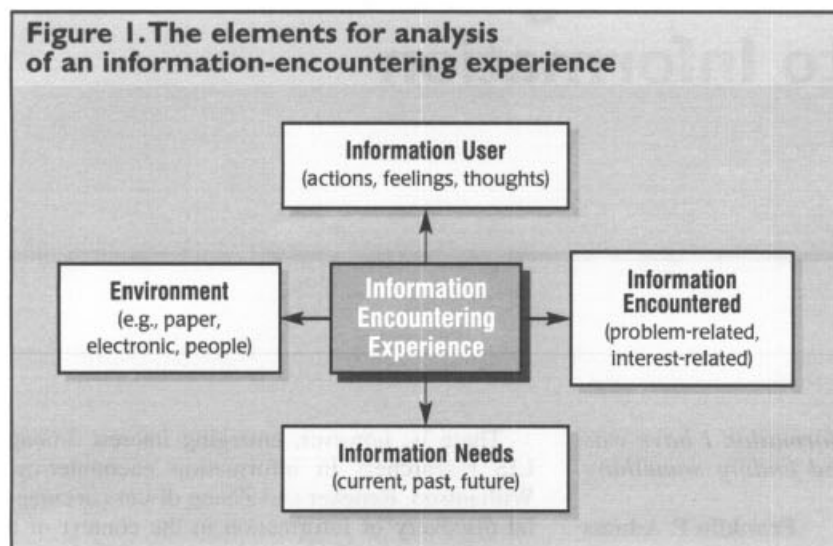
## The Anatomy of Information Encountering

The following four elements are useful in understanding an information encountering experience:

- the *information user* who encounters the information;

- the *environment* where the information encountering occurred;
- the characteristics of the *information encountered*; and
- the characteristics of the *information needs* that the information encountering addresses.

**Figure 1. The elements for analysis of an information-encountering experience**



### Who Encounters Information?

Information users are those “responsible” for information encountering. Some people tend to encounter more information than others. Regardless of what they may be doing, encounterers have a tendency to stop and “collect” useful or interesting information they bump into. Others, in contrast, prefer to stay focused on their primary objective and do not easily get distracted with opportunistic information. These individual differences are not new. They are deeply rooted in existing psychological concepts, especially human information processing, attention and perception. I identified four tentative groups of information users according to their perceptions of information encountering.

First, there are “non-encounterers” – people for whom it is difficult to recall any information encountering experience; they say that this is something that they very seldom experience. A second group are “occasional encounterers” – people who occasionally encounter information but do not see in these events more than a lucky incident. In the third group are the “encounterers” – people who recognize that they often bump into information. They enjoy these experiences but do not see a connection between information encountering and other aspects of their information behavior. Finally, the fourth group of users are “super-encounterers.” They encounter information on a regular basis and perceive it as an important element of their information acquisition.

The super-encounterers count on information encountering. This habit is, however, not something they are willing to talk about casually, mainly because information encountering does not adhere to the traditionally prescribed methods for finding information. Some super-encounterers are therefore

concerned that they may be ridiculed because they rely on bumping into information as a “method” for information acquisition. Super-encounterers not only encounter information important to them, but also often encounter information relevant to others – friends, relatives and colleagues. Also,

many super-encounterers sense that people in their closest environments, e.g., their spouses, parents, siblings or close friends, are very different in the way they find information. It is as if information super-encounterers have channels for information perception that are more sensitive than the channels of other information users. This in turn may make them more sensitive to noticing information in their environment.

To get a holistic understanding of users who encounter information one needs to understand their actions, feelings and thoughts at the time of information encountering. My research identified that immediately before encountering information users may be in “information acquisition mood,” e.g., in active search for some other information or in some other way primed to receive information. Many experiences of information

encountering also happened when users were performing some routine activity, e.g., waiting at a bus stop or doing laundry, and not consciously involved in looking for information. When asked about their feelings before and after information encountering, many users eloquently describe how their feelings changed, usually from negative feelings before, toward positive feelings after information encountering. For instance, a student may have a hard time finding information for her term paper in the library. She is very upset, dissatisfied, maybe even angry that her research process is not proceeding successfully. Then, unexpectedly, she encounters information relating to another paper that is also due soon. The student gets excited and becomes more optimistic; the new information she has encountered makes her feel better about the failed search for term paper information.

Users’ cognitive states also change at the time of information encountering. The thoughts that users may have while not being able to find some information tend to be depressive and negative. Often users will blame themselves for not knowing how to use specific information finding tools. After encountering some useful information relating to another problem or some otherwise interesting information, users become more self-assured. They often think about some future information behavior and may become active in collecting additional information.

### Where Is Information Encountered?

Information users encounter information in libraries, on the Internet, in contacts with other people or in some other everyday environment such as a grocery store or a bus stop. Some environments have more prominent information service dimensions than others. When asked about where they

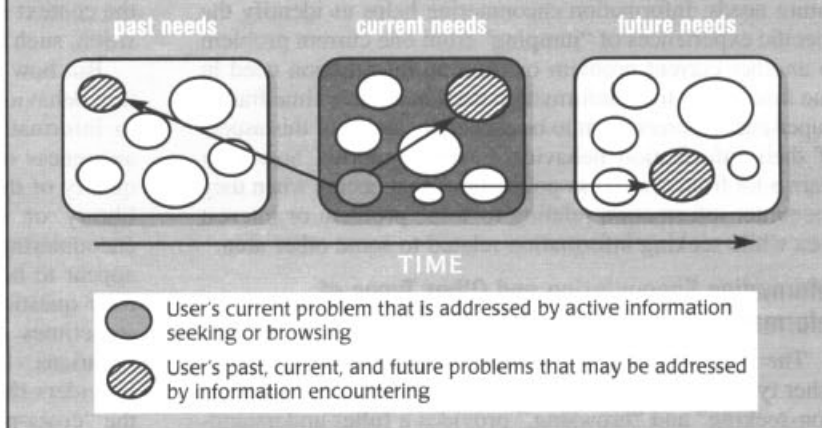
bump into information, users are able to identify information environments that they find most conducive and least conducive to information encountering. Libraries and bookstores are places where many users encounter print information. It is not surprising that to many the Internet is a conducive environment for electronic types of information. Many super-encounterers, however, try as much as possible to stay away from the Internet and instead prefer to encounter information in print resources. This may be related to the notion that was explained above that perception channels of information super-encounterers seem to be more sensitive than channels of other users who are not super-encounterers. If that is the case, the abundance of information available on the Internet may overload super-encounterers' capabilities for information processing.

On the other hand, the Internet may be a very conducive information-encountering environment for the occasional encounterers and the encounterers. Because of the density of information that is available on the Internet, more information can be encountered even though their perception channels are not as sensitive as the channels of super-encounterers. As the Internet evolves as an information environment and our knowledge of encountering develops, this phenomenon deserves more systematic research attention.

### What Information Is Encountered?

The definition of information encountering suggests that information that can be encountered includes both problem-related and interest-related information. Problem-related information pertains to some specific user's problem, but not the problem that the user was pursuing at the time when

**Figure 2. Multi-tasking nature of information users' information acquisition behavior**



information was encountered. Often the user has attempted to find information relating to the encountered problem at some earlier time. On the other hand, interest-related information is information users most likely have not tried to acquire before. This information has a potential use for users, but they cannot put it to a specific use.

Experiences with encountering problem-related information can be described as problems that involve current, past or future needs. (See sidebar for several illustrative examples of information encountering experiences for each of these need types.) Encountering information for current and future needs is very rewarding for users. They feel that they are more efficient in solving their information needs because information encountering helped them save time they would otherwise have to devote to finding not-encountered information. In contrast, information encountering relating to past problems is typically an unpleasant experience because it comes too late to address the user's need. The user's awareness of the source where this information needed in the past was encountered may, however, guide the user's future information behavior.

Information encountering experiences make information users move among different problem areas and across different time frames of their information needs. They may move from current information needs to past or future needs, and they may also move from one currently pursued problem area to other parallel problem areas. The notion that information encountering facilitates this type of lateral movement among problems and information needs may be an important contribution to a modeling of users' information behavior. Typically the models of information behavior depict only one information problem or information need. In contrast, information encountering brings to our attention that the

### Examples of Actual Information Encountering Experiences with Current, Past and Future Information Needs

**CURRENT NEED:** The student was conducting a literature search in the library and looking for information related to a term paper topic. In the process of his search, he bumped into information related to some other research project that was also his current need but not something he had pursued at that time.

**PAST NEED:** The respondent encountered interesting information on eco-tourism in South America that would have been very useful to a close friend. Unfortunately, the friend had already completed the trip addressed by the encountered information.

**FUTURE NEED:** The respondent was pursuing her routine work-related activity on the Internet when by accident she found a Web site about travel to Italy. She was going to spend her next summer vacation in Italy and was planning to search for information about Italy sometime in the future.



information behavior of real-life information users is a more complex phenomenon. In addition to their multiple current information needs, information users have many past and future needs. Information encountering helps us identify the specific experiences of "jumping" from one current problem to another current problem or from an information need in one time-frame to an information need in another time frame. Super-encounterers seem to be especially aware of this aspect of their information behavior. Several reported how they learn a lot from the "cross-pollination" that occurs when they encounter information relating to some problem or interest area while seeking information related to some other area.

### Information Encountering and Other Types of Information Acquisition

The way in which information encountering relates to other types of information acquisition, especially "information-seeking" and "browsing," provides a fuller understanding of information behavior. Like these two latter concepts, information encountering is a type of information acquisition. While information seeking and browsing involve "process-oriented" information acquisition, information encountering is an "event" or "incident" of information acquisition that occurs at a specific moment in time. Information encountering may occur during the process of information seeking or during the process of browsing. Existence of an underlying information acquisition process, however, is not a prerequisite for information encountering. As discussed before, information users often encounter information during routine activities that are not necessarily intended by users to be information-oriented.

Positive experiences of information encountering may reinforce process-oriented forms of information acquisition. For example, the more that users find useful information by bumping into it while browsing, the more likely they are to pursue these same browsing patterns. This inclination in turn may result in more information-encountering experiences. An illustrative example of this type of experience comes from a respondent who had a hard time finding information for a job-related project and was concerned about failing in the eyes of her supervisor. One day, while doing laundry in her apartment complex, she found an article in an unfamiliar magazine that was lying on a table in the laundry room. The article specifically dealt with the problem she was trying to resolve. From that time on, every time she was in the laundry room, she clearly paid attention to resources that were left by other people. This example illustrates that information encountering may also change information users' future patterns of information acquisition behavior.

### Practical Implications of Information Encountering

One may wonder what is so important about "bumping" into information? I believe that as a field LIS needs to develop holistic and detailed tools for modeling information users' behavior. The concept of information encountering adds additional "flavor" and texture to existing, sometimes very simplistic, models by which we seek to understand

information behavior. Information encountering is not some new, completely unrelated model of behavior. It is a specific type of information acquisition activity that may appear in the context of other, recognized types of information acquisition, such as information seeking and browsing.

But how do we move from abstract models of information behavior to the pragmatic problem of providing service to information users? One concrete example is how an awareness of information encountering could enhance the quality of the reference interview that typically occurs in a library or information center environment. Information encountering may explain why users sometimes do not appear to behave rationally, why they change the focus of their questions during a reference interview and why they sometimes do not follow search directions provided by librarians. In their contacts with users, information service providers should be aware of information encountering and the "cross-pollination" among users' various problems and interest areas. Information professionals should facilitate or listen for evidence of these different levels and types of needs that users hold and that users may need answered in parallel with the needs initially presented.

Another area of application may be development of information systems that would support information encountering. If information encountering is a type of information acquisition behavior that seems to work well for one group of users, there may be a way to develop information systems that would help non-encounterers make better use of encountering.

Also, additional tools may be added to information systems that could enhance the processing of encountered information. Such tools, for example in Web browsers, may improve the capturing, formatting, forwarding and organizing of the encountered information.

### Future Research

As we learn more about information encountering through further research, new ideas on how the understanding of this phenomenon may improve the information service provided to information users will emerge. For example, my current research includes studying users in the Web environment. Many studies of Web use focus on users' "information-seeking" behavior. Asking users instead about their information encountering experiences provides an opportunity to review their information behavior from a different perspective. It may encourage them to discuss aspects of their experience that they might not otherwise have felt free to talk about, fearing that they were not "proper." The preliminary findings suggest that users can identify a number of features and organizational aspects of information on the Web, such as when hyperlinks are useful and what information is expected in the links, that can improve Web site design to facilitate encountering.

Some other promising research topics might lead to a better understanding of how information encountering relates to cognitive styles and other individual differences of encounterers and super-encounterers. Yet another area of future research is evaluation of information encountering in the

context of different environments. For example, it would be interesting to compare and contrast information encountering in the electronic and print-based environments with regard to the types of tools that may promote encountering as well as the techniques users employ to organize information that is encountered in those environments. Finally, another important research topic may be information encountering on the organizational level in various information environments, e.g., corporate or military. Some relevant issues involved here are organizational sharing and management of encountered information and incorporation of organizational information encountering into knowledge management systems.

Increasing awareness about information encountering among information professionals and information users will facilitate the future research on this topic. I hope that this article successfully introduced this new concept to the reader and that many readers will also become more conscious of their own information encountering experiences. Those interested in sharing their information encountering stories with other encounterers and super-encounterers are encouraged to visit the information encountering Web site (<http://porsche.gslis.utexas.edu/ie>). This Web site is a virtual meeting place for information encounterers and also a research tool for collection of information encountering experiences that will be used in the future research.

### Further Reading

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